

# **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

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**Final Subsequent Negative Declaration for:  
ConocoPhillips Los Angeles Refinery  
Ultra Low Sulfur Diesel Project**

**State Clearinghouse No. 2004011095**

**October, 2005**

**Executive Officer**

Barry Wallerstein, D. Env.

**Deputy Executive Officer, Planning  
Rules, and Area Sources**

Elaine Chang, DrPH

**Assistant Deputy Executive Officer,  
Planning, Rule Development, and Area Sources**

Laki Tisopulos, Ph.D, P.E.

**Planning and Rules Manager  
CEQA and Socioeconomic Analyses**

Susan Nakamura

Submitted to:

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

Prepared by:

**ENVIRONMENTAL AUDIT, INC.**

**Reviewed by:**

Mike Krause - Air Quality Specialist  
Steve Smith, Ph.D. - Program Supervisor  
Frances Keeler – Senior Deputy District Counsel  
Norman Ng – Air Quality Engineer II

## **PREFACE**

*This document constitutes the Final Subsequent Negative Declaration (ND) for the ConocoPhillips Ultra Low Sulfur Diesel Project. The Draft Subsequent ND was circulated for a 30-day public review and comment period (June 21, 2005 through July 20, 2005). Two comment letters were received during the public comment period and one additional letter was received after the close of the public comment period. In addition, the SCAQMD received additional comments as part of a request for a public hearing under SCAQMD Regulation XII. The comment letters and responses are included in Appendix C of this document. Minor modifications have been made to the Draft Subsequent ND such that it is now a Final Subsequent ND. Additions to the text of the Final Subsequent ND are denoted using italics. Text that has been eliminated is shown using ~~strike-outs~~.*

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## **CHAPTER 1**

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### **PROJECT DESCRIPTION**

Introduction

Agency Authority

Project Objectives

Background CEQA Documents

Background Information

Basis for Decision to Prepare a Subsequent Negative Declaration

Project Location

Project Description

## 1.0 INTRODUCTION

This document, prepared pursuant to the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq., constitutes a Subsequent Negative Declaration for the ConocoPhillips Ultra Low Sulfur Diesel (ULSD) project to evaluate project changes, specifically, the installation and operation of Selective Catalytic Reduction (SCR) technology to reduce NO<sub>x</sub> emissions from the new charge heater B-401 that will replace the existing charge heater B-201. Potential impacts from the replacement of the heater were analyzed in the first Negative Declaration prepared for the ConocoPhillips ULSD project (SCH No. 20040011095), which was certified on June 18, 2004 (referred to herein as the 2004 Final Negative Declaration). A Negative Declaration is prepared for a project subject to CEQA when the lead agency determines there is no substantial evidence that the project may have a significant effect on the environment (CEQA Guidelines §15064(f)(3), §15070(a)). An Addendum to the 2004 Final Negative Declaration was prepared in September 2004 to evaluate minor technical changes to the ULSD project (referred to herein as the 2004 Addendum). On September 21, 2004, the 2004 Addendum was certified and the 2004 Final Negative Declaration was re-certified.

The ConocoPhillips ULSD project was developed to comply with the federal, state and South Coast Air Quality Management District (SCAQMD) regulations that limit the sulfur content of diesel fuels. The diesel sulfur limit of 15 parts per million by weight (ppmw) will help generate substantial air quality benefits by enabling the effective performance of advanced diesel exhaust emissions control technologies that reduce emissions of ozone precursors (nitrogen oxides and volatile organic compounds) and diesel particulate matter. The California Air Resources Board (CARB) estimates that the nitrogen oxide (NO<sub>x</sub>) emissions reductions in California are expected to range from about 100 tons per year in 2005 to about 35 tons per year in 2020. CARB estimates that the particulate matter emissions reductions in California are expected to range from about 16 tons per year in 2005 to about seven tons per year in 2020. Reductions in emissions of diesel particulate matter correlates to reduced ambient levels of toxic air contaminants found in diesel exhaust and, thus, public exposure to those contaminants will be reduced (CARB, 2003).

Since the certification of the 2004 Final Negative Declaration and 2004 Addendum, changes have occurred to the ULSD project requiring the need to prepare to this Subsequent Negative Declaration. The project description in the 2004 Final Negative Declaration indicated that the existing charge heater B-201 will be replaced with a functionally equivalent heater of the same maximum firing rate. The heater requires replacement to limit pressure drop through the tubes at the higher reactor inlet pressure and to ensure the heater will meet current American Petroleum Institute (API) standards at all expected firing rates. ConocoPhillips proposed that the replacement heater employ best available control technology (BACT), defined as ultra-low NO<sub>x</sub> burners. The 2004 Negative Declaration evaluated the impacts from installing and operating *ultra*-low NO<sub>x</sub> burners as a means of controlling NO<sub>x</sub> emissions from the heater. Following certification of the 2004 Final Negative Declaration and Addendum, detailed project design continued, and an application was submitted to the SCAQMD for a permit to construct the replacement heater. During permit review, it was determined that BACT for the heater will be Selective Catalytic Reduction (SCR) for NO<sub>x</sub> control which was not analyzed in the 2004 Negative Declaration. This Subsequent Negative Declaration has been prepared to evaluate the changes in the ULSD project's potential impacts due to the addition of SCR as BACT for replacement charge heater B-401.

## **1.1 AGENCY AUTHORITY**

CEQA Public Resources Code §21000 *et seq.*, requires that the environmental impacts of proposed “projects” be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. The ConocoPhillips ULSD project constitutes a “project” as defined by CEQA. To fulfill the purpose and intent of CEQA, the SCAQMD is the “lead agency” for the ConocoPhillips ULSD project, and as such is the agency that prepared the 2004 Final Negative Declaration and 2004 Addendum. In addition, as the public agency which may grant the next discretionary approval, the SCAQMD now has prepared this Subsequent Negative Declaration to address the potential environmental impacts associated with changes to the ULSD project, specifically, the addition of SCR to reduce emissions from the replacement charge heater B-401 (CEQA Guidelines §15162(b)).

The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant adverse effect upon the environment (Public Resources Code §21067). Since the SCAQMD has the greatest responsibility for supervising or approving the ConocoPhillips ULSD project as a whole, it was determined that the SCAQMD would be the most appropriate public agency to act as lead agency for the ULSD project as well as for the subsequent modifications to that project (CEQA Guidelines §15051(b) and §15162(b)).

To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this Subsequent Negative Declaration to address the potential adverse environmental impacts associated with the addition of SCR to the ULSD project to reduce NO<sub>x</sub> emissions from the replacement charge heater B-401.

## **1.2 PROJECT OBJECTIVES**

The 2004 Final Negative Declaration described the overall objectives of the ConocoPhillips ULSD project and these objectives have not changed. The purpose of the current proposed modification of adding an SCR Unit is to satisfy the determination that this technology constitutes BACT required for the replacement charge heater B-401 pursuant to SCAQMD rules. For the convenience of the reader, the project objectives as described in the 2004 Final Negative Declaration are repeated below.

ConocoPhillips is modifying its Los Angeles Refinery to produce ULSD. Reducing the sulfur content of diesel leads to a reduction of sulfur oxides (SO<sub>x</sub>) and particulate sulfate emissions, fulfilling CARB’s 2000 Diesel Risk Reduction Plan to minimize Californian’s exposure to cancer risks associated with diesel particulate matter (PM). The ConocoPhillips ULSD project will also comply with SCAQMD’s Rule 431.2 which requires a reduction in sulfur content in diesel used in stationary sources to a limit of 15 ppmw effective June 1, 2004.

On January 18, 2001, United States Environmental Protection Agency’s (U.S. EPA) 40 Code of Federal Regulations (CFR) §§80, 500 published a final rule on diesel fuel standards. As of June 1, 2006, refiners must begin selling highway diesel fuel that meets a maximum sulfur standard of 15 ppmw. The 2006 deadline was issued to ensure that adequate supplies of ULSD would be available to meet the demand in 2007, when according to the U.S. EPA, all on-road, diesel-fueled vehicles (new and existing) must be equipped to run on ULSD fuel. In Los Angeles, heavy-duty trucks and buses contribute more than a quarter of the nitrogen oxide (NO<sub>x</sub>) pollution and 14 percent of the particulate matter less than 2.5 microns in diameter (PM 2.5) pollution from mobile

sources. Pollution-control devices for heavy-duty engines are sensitive to sulfur and will not work unless the amount of sulfur in the fuel is reduced (U.S. EPA, 2003). Such pollution-control devices include diesel particulate traps and catalysts.

The SCAQMD's Rule 431.2 – (Sulfur Content Of Liquid Fuels, amended on September 15, 2000) contains a sulfur limit requirement consistent with the one later adopted by U.S. EPA. The current sulfur limit for diesel fuel sold for use in California is 500 ppmw which was approved by CARB in 1988 (Section 22 of Title 13, California Code of Regulations or CCR). Rule 431.2 requires a reduction in the sulfur content of diesel *used in both stationary and mobile sources* to 15 ppmw starting mid-2006. Most California diesel fuel currently in use contains an average of 140 ppmw of sulfur. The SCAQMD is expecting a reduction of 130 ppmw in sulfur due to the new limit (CARB, 2003).

SCAQMD Rule 431.2 directly reduces the emissions of pollutants from diesel combustion, including SO<sub>x</sub> and particulates. The SCAQMD estimates that amendments to Rule 431.2 will reduce SO<sub>x</sub> from diesel emissions by 2.7 to 10.1 tons per day, reduce particulates from diesel emissions by 1.1 tons per day, and reduce particulate matter equivalents produced by diesel emissions (assuming SO<sub>x</sub> becomes particulate ammonium sulfate) by 6.6 tons per day in the South Coast Air Basin. SCAQMD Rule 431.2 will indirectly reduce the emissions of pollutants from diesel engines by enabling the use of vehicle pollution control devices, such as particulate traps and NO<sub>x</sub> catalysts installed in a vehicle's exhaust system, that remove pollutants from tailpipe emissions. Exhaust emission control devices such as the "catalytic converter" have been used in gasoline-fueled automobiles for approximately 30 years. Exhaust emission control devices have not been widely used in trucks, buses and other heavy equipment that run on diesel fuel, however, because these devices are very sensitive to sulfur levels in the fuel and will not function effectively when fuel has high sulfur levels. These control devices will result in substantial reductions of fine particulate matter and NO<sub>x</sub> emissions that result from combustion in all types of diesel fueled combustion sources. The analysis also shows that the emissions reductions expected due to implementation of SCAQMD Rule 431.2 will prevent approximately 696 cancer cases from occurring due to lifetime exposure (SCAQMD, 2000).

Therefore, the ConocoPhillips ULSD project has been developed to comply with the federal, state and SCAQMD regulations that limit the sulfur content of diesel fuels, which will provide a public health benefit.

### **1.3 BACKGROUND CEQA DOCUMENTS**

The activities associated with the ConocoPhillips ULSD project were evaluated in the following CEQA documents. A chronological summary of the CEQA documents prepared for this project is presented below.

Notice of Intent to Adopt a Negative Declaration for the ConocoPhillips Los Angeles Refinery Ultra Low Sulfur Diesel Project, January 2004

The Notice of Intent (NOI) to Adopt a Negative Declaration was released for a 30-day public review and comment period on January 22, 2004. The NOI evaluated the potential adverse impacts on the following environmental topics: aesthetics, agriculture resources, air quality, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials,

hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid and hazardous waste, and transportation/circulation. No significant impacts were identified for any of these environmental resources.

2004 Final Negative Declaration for the ConocoPhillips Los Angeles Refinery Ultra Low Sulfur Diesel Project, June 2004

The 2004 Final Negative Declaration included applicable changes to the text of the Draft Negative Declaration and the responses to comments received during the public review and comment period.

The SCAQMD received two comment letters on the Draft Negative Declaration during the public comment period and one letter was received after the close of the public comment period. Comments from all three comment letters were responded to and, along with the comment letters, were presented in Appendix C of the 2004 Final Negative Declaration. The 2004 Final Negative Declaration was certified on June 18, 2004 (SCH 20040011095). The SCAQMD concluded that there was no substantial evidence in the record, including in the 2004 Final Negative Declaration, supporting a fair argument that the ULSD project may have a significant effect on the environment. Therefore, no mitigation measures or project alternatives were required under CEQA, and none were incorporated into the 2004 Final Negative Declaration.

Addendum to the Final Negative Declaration for the ConocoPhillips Los Angeles Refinery Ultra Low Sulfur Diesel Project, September 2004

After the certification of the Final Negative Declaration, ConocoPhillips proceeded with detailed engineering design for the ULSD project. In the course of the detailed engineering work, the company updated the fugitive component (e.g., valves, flanges, pumps, etc.) counts for the project. To account for the changes resulting from the revised number of fugitive components, an Addendum to the 2004 Final Negative Declaration was prepared. An addendum was the appropriate document because there were no project changes or changes to the 2004 Final Negative Declaration that would trigger any conditions identified in CEQA Guidelines §15162. On September 21, 2004, the Addendum was certified and the 2004 Final Negative Declaration was re-certified.

Following the certification of the Negative Declaration, the Governing Board of the SCAQMD received two petitions requesting hearings pursuant to SCAQMD Regulation XII. These petitions were received after the close of the public comment period on the Negative Declaration. Further, on August 6, 2004, the SCAQMD Governing Board denied the request for a Regulation XII hearing. Accordingly, the SCAQMD was under no legal requirement to respond to the assertions made in the petitions or the materials submitted as exhibits to the petitions for the Regulation XII hearing. Nonetheless, the SCAQMD elected to include clarifications and updates to issues raised in the Regulation XII petitions and supporting materials in the 2004 Addendum. The project changes associated with the fugitive components, and the clarifications and updates of issues raised in the Regulation XII petition did not identify significant new impacts or make existing impacts substantially worse. Conclusions made in the 2004 Negative Declaration would also not change.

#### **1.4 BACKGROUND INFORMATION**

On July 16, 2004, two lawsuits were filed challenging the SCAQMD's certification of the 2004 Final Negative Declaration and Addendum and approval of an SCAQMD permit for the ULSD

project (California Superior Court, Los Angeles County, Case Nos. BS091275 and BS091276). These lawsuits asserted that, among other things, an environmental impact report should have been prepared to review the impacts associated with the ConocoPhillips ULSD project. The petitioners sought a preliminary injunction or stay to prevent project construction during the pendency of the lawsuits; however, the court denied these requests. Therefore, construction of the ULSD project is currently underway. *On August 1, 2005, the Los Angeles Superior Court issued its Order Denying Motion for Peremptory Writ of Mandate and Statement of Decision, which concluded that the 2004 Final Negative Declaration and 2004 Addendum comply with CEQA. As yet, no decision has been issued by the court and, in accordance with Public Resources Code §21167.3(b), the SCAQMD assumes that the 2004 Final Negative Declaration and 2004 Addendum comply with CEQA.*

## **1.5 BASIS FOR DECISION TO PREPARE A SUBSEQUENT NEGATIVE DECLARATION**

The SCAQMD was the lead agency responsible for preparing the 2004 Final Negative Declaration and is the public agency that has the primary responsibility for approving the currently proposed project modification. Therefore, the SCAQMD is the appropriate lead agency to evaluate the potential environmental effects of the currently proposed project modification that are the subject of this Subsequent Negative Declaration. Based on the following background, the SCAQMD has determined that a Negative Declaration is the appropriate document to evaluate the proposed modifications to the ULSD project.

CEQA Guidelines §15162(b) provides that if changes to a project occur after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR, if conditions under §15162(a) apply. However, conditions under §15162(a) do not apply for the proposed project.

CEQA Guidelines §15162(a) states that no subsequent EIR shall be prepared for project changes unless the changes will result in substantial changes that require major revisions of the previous negative declaration due to new significant adverse impacts, or a substantial increase in a previously identified impact. As discussed in Chapter 2 of this document, no substantial changes requiring major revisions or resulting in a substantial increase in a previously identified impact have occurred. The environmental analysis in Chapter 2 of this document demonstrates that the installation and operation of an SCR Unit will not cause a new significant adverse impact requiring a subsequent EIR for the following reasons:

1. The 2004 Final Negative Declaration and 2004 Addendum included an analysis of the impacts from the replacement of the charge heater B-201. The current proposed project modifications involve the addition of an SCR Unit to reduce NO<sub>x</sub> emissions from the replacement heater B-401, which was not analyzed in the previous documents. Although there will be impacts from installing a new SCR Unit, the construction emissions are not expected to result in an increase in the peak construction emissions (pounds per day) beyond those evaluated in the 2004 Final Negative Declaration and *2004 Addendum* for the overall project. In addition the construction emissions from installing a new SCR Unit are less than significant. Therefore, the construction emissions associated with the proposed project modifications are no different than analyzed in the 2004 Final Negative Declaration and *2004 Addendum* and are less than significant.

2. Overall NO<sub>x</sub> emissions from the operation of the ULSD Project will range from about six to 21 pounds per day less than emissions from operation of the existing facility, providing an air quality benefit. The proposed project modifications will not result in any other change to the operation emission estimates for the ULSD project summarized in Table 1 of the 2004 Addendum (page 7 of the Addendum).
3. The potential air quality impacts associated with ammonia emissions from the SCR Unit will comply with SCAQMD Rule 1303 BACT requirements and be limited to five ppm. Therefore the ammonia emissions are considered to be less than significant.
4. The hazard impacts associated with the delivery, unloading, storage and use of aqueous ammonia are less than significant due to the fact that the consequence and probability of a risk of upset is less than significant. No increase in the storage of *aqueous* ammonia at the Refinery is required as the SCR Unit will use an existing aqueous ammonia storage tank. The new SCR Unit is expected to require a maximum of one additional truck trip per year to transport aqueous ammonia, and the hazards associated with this transportation are less than significant as demonstrated in Chapter 2.
5. An analysis of the other environmental topics in the CEQA Guidelines indicates that the proposed project modifications will not result in any significant adverse environmental impacts.

As previously stated, CEQA Guidelines §15162(b) indicates that “If changes to a project or its circumstances occur or new information becomes available after adoption of the negative declaration, the lead agency shall prepare a subsequent EIR, if required under subsection (a).” As discussed above and in Chapter 2 of this document, no substantial changes requiring major revisions or resulting in a substantial increase in a previously identified impact have occurred so there is no requirement to prepare a subsequent EIR.

The second sentence of §15162(b) indicates that “Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation,” which means when the conditions of §15162(a) are not met, then the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation. The use of an addendum was considered for the proposed project modifications. An addendum is appropriate when only minor technical changes or additions are necessary, and none of the conditions described in CEQA Guidelines §15162 (as summarized above) exist. An addendum was considered appropriate for the previous project changes evaluated in the September 2004 Addendum because these changes involved a more accurate account of fugitive components, resulting in an increase. Fugitive components and associated impacts had already been evaluated in the 2004 Final Negative Declaration. In contrast, adding the SCR Unit to the ULSD project will bring in a new type of control technology not previously discussed, and a new chemical (*aqueous* ammonia) with risks that have not previously been discussed in the CEQA analysis for the ConocoPhillips ULSD project.

Since an EIR is not required and the SCAQMD has determined that an addendum is not appropriate, the SCAQMD has concluded that a Subsequent Negative Declaration is the most appropriate CEQA document in which to analyze the proposed project modification pursuant to CEQA Guidelines §15162(b). Due to the limited nature of the proposed modification to the

project, the Subsequent Negative Declaration will examine only the incremental effects of the project as modified, compared to the previously reviewed and approved ULSD project.

A number of cases make it clear that a negative declaration for a subsequent proposal to a project may be limited in scope to the project modifications. The use of such documents was first discussed in *Benton v. Board of Supervisors* (1991) 226, Cal.App.3d 1467. A proposed winery was reviewed in a mitigated negative declaration, and then a second mitigated negative declaration was prepared for a subsequent proposal to relocate the buildings to another parcel of land. The court held that the county "properly considered only the incremental differences between the original project and the modification". *Id.* at 1483. The court observed that CEQA Guidelines §21166 addressed only previously certified EIRs, while CEQA Guidelines §15162 included both previously certified EIRs and previously approved negative declarations. The court evaluated whether this extension was acceptable, and concluded that it was. Specifically, the court explained:

"These same principles apply with even greater force in a case such as this, in which the initial environmental review resulted in the issuance of a negative declaration, rather than an EIR. If a limited review of a modified project is proper when the initial environmental document was an EIR, it stands to reason that no greater review should be required of a project that initially raised so few environmental questions that an EIR was *not* required, but a negative declaration was found to satisfy the environmental review requirements of CEQA. To interpret CEQA as requiring a greater level of review for a modification of a project on which a negative declaration has been adopted and a lesser degree of review of a modified project on which an EIR was initially required would be absurd." *Id.* at 1480.

The *Benton* decision featured prominently in the court's reasoning in the more recent case of *Temecula Band of Luiseno Mission Indians* (1996) 43 Cal.App.4th 425. That case involved a water project that included pumping groundwater and then managing the aquifer through purchase and storage of off-peak water resources as well as storm water flows. The project included many component facilities, including a water pipeline. The initial project was reviewed in a negative declaration, and a second negative declaration was prepared about five years later to review a proposal to re-route the pipeline. The court upheld the second negative declaration, which only looked at the impacts of the proposed changes to the water pipeline. The court further held that "judicial review of the Project's potential environmental effects is limited to incremental effects of the Project as compared to the [previously reviewed and approved] 1984 Program." *Id.* at 439. The court also rejected the petitioners' attempt to revive review of the underlying groundwater pumping through a theory of cumulative impacts.

As noted above, this Subsequent Negative Declaration is required to evaluate an additional control technology with related chemical hazards that were not previously addressed in the 2004 Final Negative Declaration or 2004 Addendum. This Subsequent Negative Declaration will be focused on those incremental environmental effects that may result from the addition of an SCR Unit to the ULSD project. The SCAQMD has reviewed the impacts associated with SCR Units for a number of projects proposed by other applicants at other sites. Recent CEQA documents prepared by the SCAQMD as the lead agency that have evaluated the impacts of SCR Units include: (1) the 2004 Final Negative Declaration for the ConocoPhillips Los Angeles Refinery Carson Plant SCR Unit Project; (2) the 2004 Final EIR for the Ultramar Inc. – Valero Wilmington Refinery Alkylation Improvement Project (SCH #20030536); (3) the 2003 Final Negative Declaration for the Chevron Products Company Refinery Proposed Hydrogen Plant Project; (4) the 2001 Final Negative

Declaration for the Paramount Petroleum Cogeneration Unit (SCH No. 2001111161); (5) the 2003 Final Negative Declaration for the Southern California Edison Pebbly Beach Generating Station Selective Catalytic Reduction Project (SCH #2003031050); (6) the 2002 Final Negative Declaration for the Reliant Energy Etiwanda Generating Station SCR Installation Project; (7) the 2002 Final Negative Declaration for BP Carson Refinery Fluid Catalytic Cracking Unit NOx Reduction Project (SCH No. 2002021068); (8) the 2001 Final EIR for the Chevron – El Segundo Refinery CARB Phase 3 Clean Fuels Project (SCH No. 2000081088); (9) the 2001 Final Environmental Impact Report for the AES Alamos, L.L.C. – Selective Catalytic Reduction Installation at Alamos Generating Station (SCH No. 2000111039); (10) the 2001 Final Mitigated Negative Declaration for Reliant Energy Etiwanda Generating Station Selective Catalytic Reduction Installation Project (SCH No. 2001021027); and (11) the 2001 Final Environmental Impact Report for Los Angeles Department Of Water And Power's Installation Of Five Combustion Turbines At The Harbor Generating Station, Installation Of Three Selective Catalytic Reduction Systems At The Scattergood Generating Station, And The Installation Of One Combustion Turbine At The Valley Generating Station (SCH No. 2000101008). The above list of CEQA documents indicates that the SCAQMD has substantial experience in preparing CEQA documents that evaluate the environmental impacts associated with the use of SCR Units.

Based on the prior research of SCAQMD staff as well as the experience and expertise of the agency's engineers, inspectors, meteorologists and toxicologists, the SCAQMD has determined that the adverse environmental impacts associated with the use of SCRs are related to air quality (construction emissions, operational emissions, and toxic air contaminant impacts) and hazards (ammonia hazards). Chapter 2 evaluates the incremental adverse impacts of the proposed project modifications on these two environmental topics, as well as all other environmental resources included in the CEQA Guidelines Checklist (see Chapter 2).

Based on the environmental analysis of the incremental effects of the proposed project modifications, the SCAQMD has concluded that the only environmental areas adversely affected by the proposed project modifications are air quality and hazards. As summarized above and discussed in detail in Chapter 2, the potential incremental adverse impacts associated with the proposed project modifications on air quality and hazards are less than significant. Therefore, it can be concluded that the proposed project modifications do not create any significant adverse environmental effects on its own as well as in addition to the impacts analyzed in the 2004 Final Negative Declaration and 2004 Addendum. As a result, pursuant to CEQA Guidelines §15064(f)(3), since there is no substantial evidence that the ULSD project as modified may have a significant effect on the environment, the lead agency shall prepare a negative declaration for the subsequent proposal to the ULSD Project. This document constitutes a Subsequent Negative Declaration for the ConocoPhillips ULSD Project. Chapter 2.0 of this Subsequent Negative Declaration further explains the basis and provides the environmental analyses for the determination to prepare this document.

## **1.6 PROJECT LOCATION**

The location of the ConocoPhillips ULSD project is described in the 2004 Final Negative Declaration. The proposed addition of an SCR Unit to reduce NOx emissions from the replacement charge heater B-401 will not change the location of the ULSD project. Pertinent information regarding the project location is repeated below for the convenience of the reader.

The ConocoPhillips Los Angeles Refinery operates at two different sites in the South Coast Air Basin which is a subarea of the SCAQMD's area of jurisdiction. One of the sites is located in the City of Carson (Carson Plant) and the other site is in the City of Los Angeles in the Wilmington community (Wilmington Plant). The proposed project changes (i.e., the addition of an SCR Unit) only includes physical modifications at the Wilmington Plant. The ConocoPhillips Wilmington Plant consists of approximately 400 acres and is located in Los Angeles County at 1660 West Anaheim Street, Wilmington, California (see Figures 1 and 2). The eastern part of the Wilmington Plant borders a residential area, a roofing materials plant, and a portion of the Harbor 110 Freeway. The northern portion of the site borders Harbor Lake Park, Harbor College, Harbor Golf Course, and a small residential area. The western part of the site borders Gaffey Street including a firing range, vacant fields, recreational fields, and a U.S. Navy fuel storage facility. Finally, the southern portion of the site shares a border with a warehouse facility.

As shown in the 2004 Final Negative Declaration, the replacement charge heater B-401 will be located at the Wilmington Plant in Block 34. The SCR Unit will also be located at the Wilmington Plant in Block 34 (see Figure 3).

## **1.7 PROJECT DESCRIPTION**

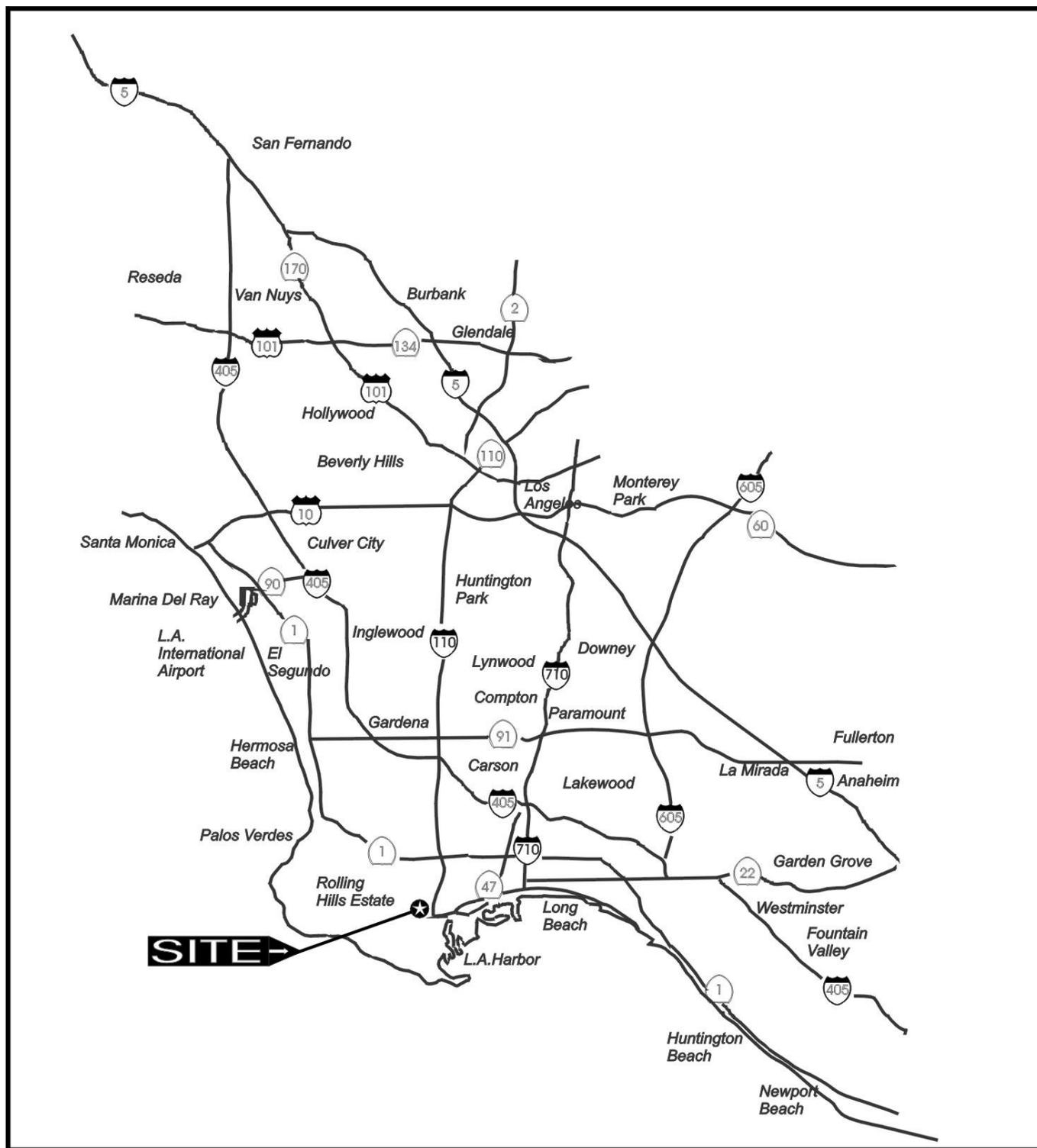
### **1.7.1 June 2004 Final Negative Declaration**

The 2004 Final Negative Declaration described the ConocoPhillips ULSD project. As described in the 2004 Final Negative Declaration, the ULSD project has two major components: (1) revamp the Mid-barrel Hydrotreater Unit 90 to decrease the hydrotreating reaction space velocity to meet the required diesel sulfur level; and (2) modify the mid-barrel handling and logistics to segregate diesel from higher sulfur jet fuel. The ULSD project will also improve hydrogen distribution at the Wilmington Plant; and improve control of the Crude Unit heavy gas oil distillation cutpoint at the Carson Plant. The ULSD project will not increase diesel production, affect the Refinery's existing ability to produce CARB diesel at the Carson Plant Gas Oil Hydrotreater or increase crude throughput. The following Refinery units and processes have already been or will be affected by the ULSD project:

- Mid-Barrel Hydrotreater U-90
- Mid-Barrel Handling and Shipping Modifications
- Hydrogen System
- Tank 331
- Crude Unit DU-5 at the Carson Plant
- Replacement of charge heater B-201

### **1.7.2 September 2004 Addendum**

The 2004 Addendum evaluated minor changes to the ULSD project consisting of changes to both the number of fugitive components (i.e., pumps, valves and flanges) removed as well as the number of fugitive components added as a result of the project. No other modifications were proposed to the ULSD project as part of the 2004 Addendum.

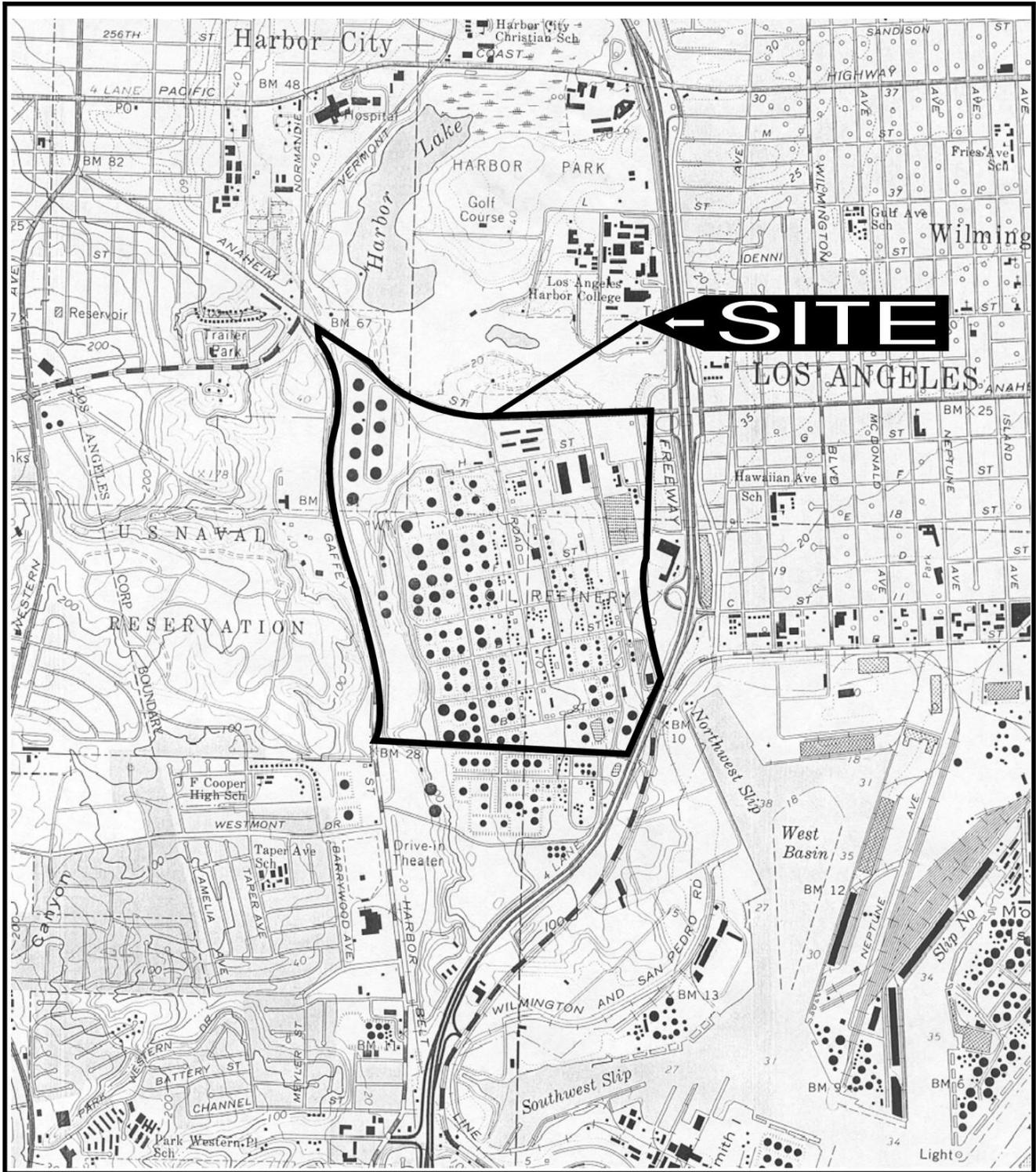


# REGIONAL MAP ConocoPhillips Wilmington Plant

Project No. 2221

N:\2221\Regional Map.CDR

Figure 1



**Environmental Audit, Inc.**

SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, TORRANCE, CA

**SITE LOCATION MAP**  
**ConocoPhillips Los Angeles Refinery**  
**WILMINGTON PLANT**

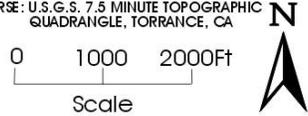


Figure 2

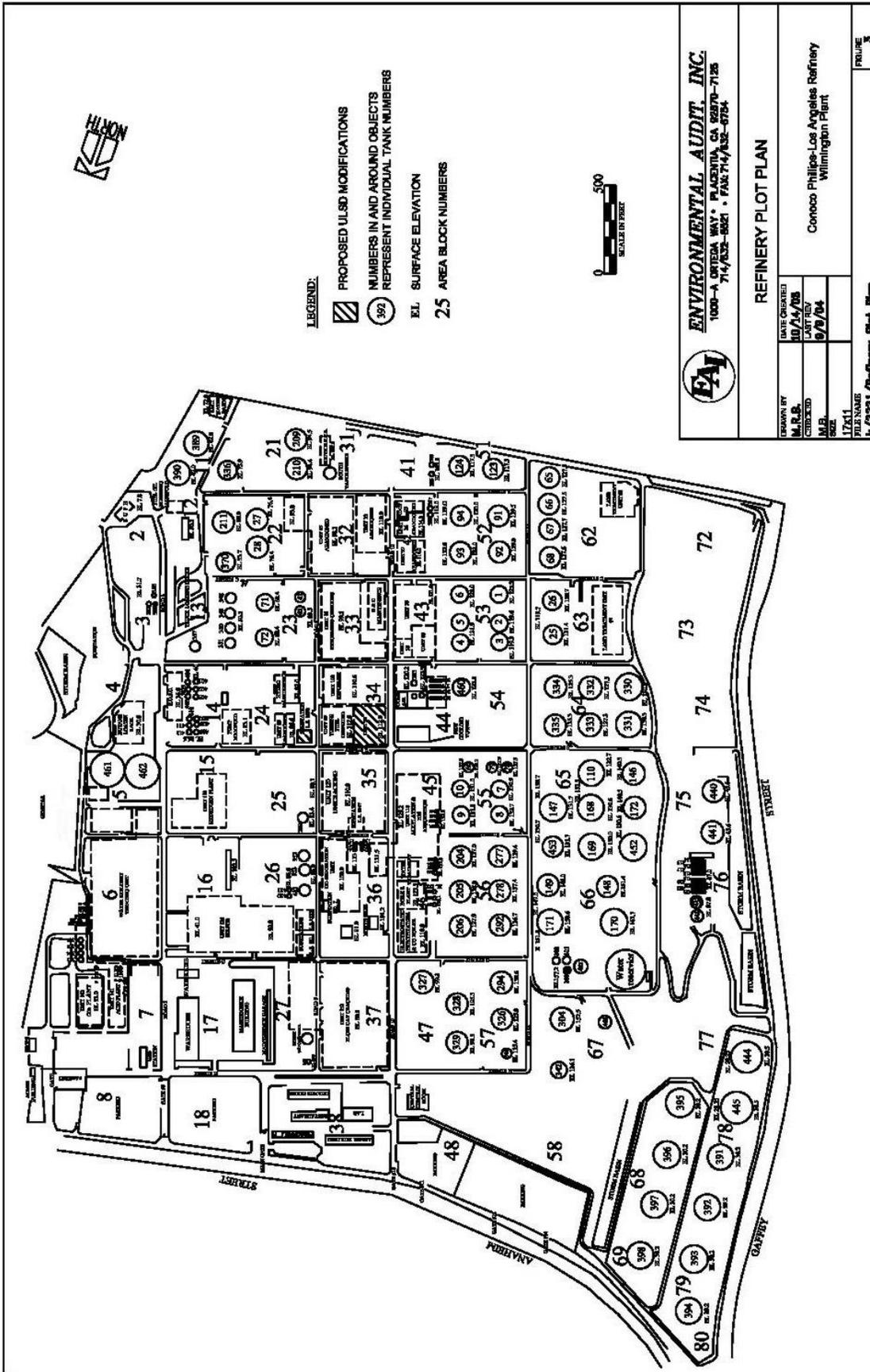
### 1.7.3 Current Proposed Project Changes

As described and evaluated in the 2004 Final Negative Declaration and the 2004 Addendum, the existing reactor charge heater B-201 will be removed from service and replaced with a functionally identical replacement heater referred to as B-401, which will have no greater potential to emit than the replaced source. Consistent with current SCAQMD policy, the air quality permit will be updated to indicate the equipment's maximum design rating. Subsequent to the certification and adoption of those CEQA documents, ConocoPhillips continued with detailed engineering, and submitted an application for a permit to construct the charge heater B-401. In the course of reviewing the permit application, the SCAQMD has determined that BACT for the replacement heater B-401 is SCR and not just low NO<sub>x</sub> burners, as described in the 2004 Final Negative Declaration. Therefore, ConocoPhillips is now proposing to install an SCR Unit, in addition to the low NO<sub>x</sub> burners, on heater B-401. NO<sub>x</sub> emissions from replacement charge heater B-401 will be limited to a concentration of five ppmv. BACT for CO and SO<sub>x</sub> control is 10 ppmv and 40 ppm total reduced sulfur, respectively. Heater B-401 and the SCR Unit will be located adjacent to the new reactors in Unit 90 (see Figure 3, Block 34).

SCR units control NO<sub>x</sub> emissions by injecting aqueous ammonia into the exhaust gas stream upstream of a catalyst. The aqueous ammonia to be used in the SCR Unit will consist of 30 percent ammonia. NO<sub>x</sub>, ammonia, and oxygen react on the surface of the catalyst to form nitrogen and water. The catalyst will be made from a noble metal with NO<sub>x</sub> control efficiencies expected to be approximately 90 percent or more. The NO<sub>x</sub> concentration downstream from the SCR Unit is ~~expected to be less than~~ *limited to* five parts per million.

Aqueous ammonia will be supplied to the SCR's vaporizer system from an existing aqueous ammonia storage tank, so no new storage tank will be required. In addition, no physical modifications are required to the existing storage tank. The annual throughput of the existing aqueous ammonia tank will increase slightly, but there will be no increase in emissions because the tank is pressurized with a vapor balanced system for filling. A back-up supply consisting of two 150-pound cylinders of anhydrous ammonia will also be installed as part of the aqueous ammonia vaporization skid at heater B-401. This back-up ammonia supply will be manually activated only if the normal aqueous ammonia supply fails. The back-up ammonia cylinders require re-inspection under Department of Transportation requirements every ten years; therefore, the ammonia cylinders would be replaced at least every ten years. Anhydrous ammonia cylinders are also used as an emergency backup ammonia supply on other existing SCR Units at the Wilmington Plant. The anhydrous ammonia cylinders are supplied by a local company that supplies a variety of products to the refinery, including ammonia and other products. The company makes weekly deliveries to the Wilmington Plant.

Potential environmental impacts from the proposed project modification are analyzed for each environmental topic in Chapter 2.



## **CHAPTER 2**

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### **ENVIRONMENTAL CHECKLIST FORM**

Introduction  
General Information  
Potentially Significant Impact Areas  
Determination  
Environmental Checklist and Discussion  
    Aesthetics  
    Agriculture Resources  
    Air Quality  
    Biological Resources  
    Cultural Resources  
    Energy  
    Geology and Soils  
    Hazards and Hazardous Materials  
    Hydrology and Water Quality  
    Land Use and Planning  
    Mineral Resources  
    Noise  
    Population and Housing  
    Public Services  
    Recreation  
    Solid and Hazardous Waste  
    Transportation and Traffic  
    Mandatory Findings of Significance  
Conclusion  
References  
Acronyms  
Glossary

## **INTRODUCTION**

The environmental analysis in this Subsequent Negative Declaration identifies and evaluates the potential adverse environmental impacts that may be created by the proposed modifications to the ULSD project.

## **GENERAL INFORMATION**

Project Title:	ConocoPhillips Los Angeles Refinery Ultra Low Sulfur Diesel Project
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
Contact Person:	Michael Krause
Contact Phone Number:	(909) 396-2706
Project Sponsor's Name:	ConocoPhillips Company
Project Sponsor's Address:	1660 West Anaheim Street Wilmington, CA 90744
General Plan Designation:	Heavy Industrial
Zoning:	M-3 Heavy Industrial
Description of Project:	The 2004 Final Negative Declaration and the 2004 Addendum describe in greater detail the overall ConocoPhillips ULSD project. This Subsequent Negative Declaration evaluates the proposed project modifications, including specifically the addition of an SCR Unit to control NOx emissions from replacement heater B-401. The proposed modification will allow ConocoPhillips to further reduce NOx emissions at its Wilmington Plant as part of the ULSD project. The ULSD project will allow ConocoPhillips to produce diesel fuel with lower sulfur content that complies with federal, state and local requirements.
Surrounding Land Uses and Setting:	Anaheim Street and the Ken Malloy Harbor Regional Park border the Plant to the north. The southern area is bordered by a warehouse facility. To the southeast, there is a residential area. Interstate 110 Freeway borders the Plant to the east with a residential area to the northeast. Gaffey Street and a US Navy Fuel Depot border the Plant to the west.
Other Public Agencies Whose Approval is Required:	City of Los Angeles

**POTENTIALLY SIGNIFICANT IMPACT AREAS**

The following environmental impact areas have been assessed to determine the potential environmental effects that may result from the proposed modifications to the ULSD project. As indicated by the environmental analysis on the following pages, environmental topics marked with an "✓" may be adversely affected by the ULSD project as modified to include the SCR Unit. An explanation relative to the determination of impacts can be found on the following pages.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Aesthetics            | <input type="checkbox"/> Agriculture Resources       | <input type="checkbox"/> Air Quality                                       |
| <input type="checkbox"/> Biological Resources  | <input type="checkbox"/> Cultural Resources          | <input type="checkbox"/> Energy  |
| <input type="checkbox"/> Geology/Soils         | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Hydrology/<br>Water Quality                       |
| <input type="checkbox"/> Land Use/Planning     | <input type="checkbox"/> Mineral Resources           | <input type="checkbox"/> Noise   |
| <input type="checkbox"/> Population/Housing    | <input type="checkbox"/> Public Services             | <input type="checkbox"/> Recreation  |
| <input type="checkbox"/> Solid/Hazardous Waste | <input type="checkbox"/> Transportation/<br>Traffic  | <input type="checkbox"/> <b>Mandatory<br/>Findings of<br/>Significance</b> |

In the following pages, the checks in the boxes reflect the potential environmental effects of the ULSD project as modified to include the SCR Unit. The narrative following the checked boxes explains the effects, if any, of the modification as well as the cumulative effects. In this manner, the reader will be informed of both the changes resulting from the inclusion of the SCR Unit, and the conclusions regarding the ULSD project as a whole.

**DETERMINATION**

On the basis of this initial evaluation:

- I find the ULSD project as modified to include the SCR Unit, COULD NOT have a significant effect on the environment, and that a SUBSEQUENT NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: June 21, 2004

Signature: Steve Smith

Steve Smith, Ph.D.  
Program Supervisor

**ENVIRONMENTAL CHECKLIST AND DISCUSSION**

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>I. AESTHETICS.</b> Would the project:			
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**1.1 Significance Criteria**

The proposed project impacts on aesthetics will be considered significant if:

The project will block views from a scenic highway or corridor.

The project will adversely affect the visual continuity of the surrounding area.

The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

**1.2 Environmental Setting and Impacts**

**1. a), b), and c)** Aesthetics were discussed in the 2004 Final Negative Declaration, Chapter 2, Aesthetics (page 2-4) and determined to be less than significant. The proposed project modifications will not change the aesthetic resource analysis from the 2004 Final Negative Declaration. The addition of the new SCR Unit will not adversely impact the existing visual character or quality of the site and its surroundings as part of the project analyzed in the 2004 Final Negative Declaration. The project site is located in an industrial area. The primary aesthetic impacts of the proposed project are related to

the new reactor in Unit 90 (about 100 feet high). The proposed SCR Unit will be about 10 feet high, which is smaller than most surrounding structures. The heater stack is about 185 feet high and there are vessels and stacks within and adjacent to Unit 90 that range in height from 70 feet to 165 feet. The SCR Unit is small in comparison to Unit 90 itself and will not be visible to areas outside of the Refinery. Further, the SCR Unit will be located adjacent to the new reactors in Unit 90 in the central portion of the Refinery (see Figure 1-3). Therefore, the SCR Unit will not be visible to the public and will not result in significant adverse visual impacts to areas outside of the Refinery.

**1. d)** Construction activities are not anticipated to require additional lighting because they are scheduled to take place during daylight hours. However, if the construction schedule requires nighttime activities, temporary lighting may be required. Since the project location is completely located within the boundaries of the existing Wilmington Plant, additional temporary lighting is not expected to be discernible from the existing permanent night lighting.

The project components will be located within existing industrial facilities, which are already lighted for nighttime operations, so that no overall increase in lighting associated with the proposed project at the Wilmington Plant is expected. Therefore, no significant impacts to light and glare are anticipated from the proposed project.

**1.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to aesthetics are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to aesthetics nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on aesthetics. Therefore, no mitigation is required or proposed.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>II. AGRICULTURE RESOURCES.</b> Would the project:			
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- |    |  |                          |                          |                                     |
|----|--|--------------------------|--------------------------|-------------------------------------|
| b) | Conflict with existing zoning for agricultural use, or a Williamson Act contract?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**2.1 Significance Criteria**

Project-related impacts on agricultural resources will be considered significant if any of the following conditions are met:

The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.

The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.

The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural uses.

**2.2 Environmental Setting and Impacts**

**2. a), b), and c)** Agricultural resources were discussed in the 2004 Final Negative Declaration, Chapter 2, Agricultural Resources (page 2-6) and determined to be less than significant. The proposed project modifications will not change the agricultural resources analysis from the 2004 Final Negative Declaration. Neither the ULSD project as originally proposed nor as modified through addition of the SCR Unit will adversely impact agricultural resources in any way. The Wilmington Plant is located within, and is surrounded by, industrial land uses. No agricultural resources are located within the proposed project area or within the general surrounding area. Land uses in the Wilmington area are dominated by industrial and port-related land uses. All project modifications will occur within the confines of the existing Refinery. Therefore, the proposed project modifications would not convert or result in the conversion of any farmland to non-agricultural uses, or conflict with existing zoning for agricultural uses or Williamson Act contracts. Therefore, no significant adverse impacts to agricultural resources are expected from the construction and operation of the ULSD project, as originally proposed or as modified to include the SCR Unit.

**2.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to agricultural resources are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to agricultural resources nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on agricultural resources. Therefore, no mitigation is required or proposed.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>III. AIR QUALITY.</b> Would the project:			
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**3.1 Significance Criteria**

Impacts will be evaluated and compared to the significance criteria in Table 2-1. If impacts equal or exceed any of those criteria, they will be considered significant.

TABLE 2-1

## AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds		
Pollutant	Construction	Operation
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
TAC, AHM, and Odor Thresholds		
Toxic Air Contaminants (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Hazard Index $\geq$ 1.0 (project increment) Hazard Index $\geq$ 3.0 (facility-wide)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality for Criteria Pollutants <sup>a</sup>		
NO <sub>2</sub>  1-hour average annual average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedence of the following attainment standards: 0.25 ppm (state) 0.053 ppm (federal)	
PM10 24-hour  annual geometric mean annual arithmetic mean	10.4 ug/m <sup>3</sup> (recommended for construction) <sup>b</sup> 2.5 ug/m <sup>3</sup> (operation) 1.0 ug/m <sup>3</sup> 20 ug/m <sup>3</sup>	
Sulfate 24-hour average	1 ug/m <sup>3</sup>	
CO  1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedence of the following attainment standards: 20 ppm (state) 9.0 ppm (state/federal)	

<sup>a</sup> Ambient air quality threshold for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated

<sup>b</sup> Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day; ppm = parts per million; ug/m<sup>3</sup> = microgram per cubic meter;  $\geq$  greater than or equal to

### 3.2 Environmental Setting and Impacts

3. a) As described in the 2004 Final Negative Declaration, the ULSD project will comply with and carry out one of the measures contained in the Air Quality Management Plan (AQMP) to use ULSD in fuels. The AQMP identifies control measures necessary to attain the state and federal ambient air quality standards. Low sulfur diesel standards are specifically identified in a control measure in the 2003 AQMP (FUEL-2). The 2003 AQMP has been adopted by the SCAQMD and CARB. The ULSD project will allow ConocoPhillips to produce ULSD for use in California that complies with the local, state, and federal ULSD requirements. ~~Therefore,~~ The ULSD project implements control measure FUEL-2 from the 2003 AQMP and, therefore, is considered to be consistent with the 2003 AQMP. The addition of an SCR Unit does not adversely alter this conclusion and will result in additional NOx emission reductions. SCR technology does

not conflict with or obstruct implementation of any aspect of the AQMP. In addition, use of an SCR Unit is needed to meet the NO<sub>x</sub> limit for BACT which is required by the SCAQMD's New Source Review rules as embodied in Regulation XIII and Rule 2005. Compliance with the New Source Review permitting program requirements is consistent with the AQMP, because the AQMP relies upon compliance with these programs to improve air quality in the region (SCAQMD, 2003).

**3. b) and f) Emissions Estimates**

**Construction Emissions:** The air quality impacts associated with the ULSD project construction activities were discussed in 2004 Final Negative Declaration, Chapter 2, (page 2-9) and modified in the 2004 Addendum. The installation of an SCR Unit will occur in conjunction with the ULSD project and is not expected to generate significant new adverse construction air quality impacts or substantially increase peak construction activities. The SCR Unit will be manufactured off-site and delivered to the Wilmington Plant where it will be assembled and installed. Assembly and installation of the unit requires minimal construction activities as the preconstructed unit will be connected to the ~~heater boiler~~. Installation of the SCR Unit is only expected to increase the period of peak construction activities by about two weeks. Construction of the SCR Unit will not increase the peak number of construction workers, peak number *or* ~~of~~ type of construction equipment or peak hours of operation. No additional construction equipment is needed for construction of the SCR Unit beyond what is currently required for the ULSD Project. Construction activities associated with the SCR Unit will require a crane, two welders and one truck. This equipment and necessary work force will already be at the site and no additional equipment will be required. The peak construction emissions associated with the ULSD Project, including the installation of the SCR Unit, will not change from the peak construction emission estimates provided in the 2004 Final Negative Declaration and as modified by the 2004 Addendum. The peak construction emissions are provided in Table 2-2. (Note that this table is identical to Table 3 and Attachment 2 in the 2004 Addendum.)

**TABLE 2-2**

**SUMMARY OF PEAK CONSTRUCTION EMISSIONS**

<b>Construction Emissions</b>	<b>CO</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>
Construction Emissions <sup>(1)</sup>	348.6	25.5	77.8	5.3	61.3
Significance Threshold	550	75	100	150	150
Significant?	NO	NO	NO	NO	NO

(1) Source: 2004 Final Negative Declaration, Appendix A and 2004 Addendum, Table 3 and Attachment 2.

The installation of the SCR Unit will not result in an increase in peak construction emissions (pounds per day). The proposed project modifications will not alter the conclusions of the 2004 Negative Declaration or Addendum. The impacts on air quality resulting from construction of the ULSD project as modified are less than significant as shown in Table 2-2.

**Operation Emissions:** The air quality impacts associated with operation of the ULSD project were discussed in the 2004 Final Negative Declaration, Chapter 2 (page 2-9) and modified in the 2004 Addendum (page 7, Table 1) and determined to be less than significant. The current proposed project modifications will affect air quality not previously analyzed in three ways. First, operational NO<sub>x</sub> emissions from the new charge heater B-401 will be reduced. Second, there will be ammonia emissions from the operation of the SCR Unit. Third, there will be emissions from the truck trips associated with the delivery of ammonia and the changing of the SCR catalyst, but these are so infrequent that they will not change the estimate of delivery truck emissions on the worst case day. These three effects are discussed in more detail in the following subsections.

### **Proposed New Charge Heater B-401 Emissions**

The proposed project modification involves the installation of air pollution control equipment (i.e., SCR) to reduce emissions from the replacement charge heater B-401. The estimated emission reductions have been calculated based on both the average and maximum firing rate for existing heater B-201 and replacement charge heater B-401. Based on the most recent emissions (two-year average), existing heater B-201 emits about 18.7 pounds per day of NO<sub>x</sub> (about 37 ppmv NO<sub>x</sub>, assuming average firing rate). The use of ultra-low NO<sub>x</sub> burners is expected to reduce emissions to about 10.5 pounds per day (18 ppmv NO<sub>x</sub>) or about an 8.2 pounds per day emission reduction. The NO<sub>x</sub> emissions from the replacement heater B-401, following installation of the SCR Unit plus low NO<sub>x</sub> burners, are expected to be about 3.7 pounds per day (five ppmv NO<sub>x</sub>) or about a 6.8 pounds per day emission reduction *over low NO<sub>x</sub> burners*. With the addition of SCR technology plus the use of low NO<sub>x</sub> burners, NO<sub>x</sub> emissions from operation of the replacement charge heater B-401 will be about 15 (18.7 - 3.78) pounds per day less than emissions from operation of the existing charge heater B-201 (see Table 2-3). Assuming an average firing rate, overall ULSD Project NO<sub>x</sub> emission reductions would be 6.1 pounds per day, which takes into account emission increases associated with increased truck deliveries (see Table 2-3).

Assuming a maximum firing rate for existing heater B-201 and replacement heater B-401 would result in larger estimated emission reductions. Existing heater B-201 emits about 36.7 pounds per day of NO<sub>x</sub> (assuming maximum firing rate). The use of ultra-low NO<sub>x</sub> burners is expected to reduce emissions to about 19.8 pounds per day (an estimated emission reduction of 16.9 pounds per day). The NO<sub>x</sub> emissions from the replacement heater B-401, following installation of the SCR Unit plus low NO<sub>x</sub> burners, are expected to be a maximum of seven pounds per day (an estimated 12.8 pounds per day emission reduction). With the addition of SCR technology plus the use of low NO<sub>x</sub> burners, NO<sub>x</sub> emissions from operation of the replacement charge heater B-401 (assuming a maximum firing rate) will be about 29.7 (36.7-7) pounds per day less than emissions from operation of the existing charge heater B-201 (see Table 2-3). Assuming a maximum firing rate, overall ULSD Project NO<sub>x</sub> emission reductions would be 20.8 pounds per day, which takes into account emission increases associated with increased truck deliveries (see Table 2-3).

**TABLE 2-3**  
**OPERATIONAL EMISSIONS INCREASES AND DECREASES**

	EMISSIONS (lbs/day, 24 hr/day)				
	CO	PM10	VOC	NOx	SOx
<b>EMISSIONS FROM 2004 FINAL NEGATIVE DECLARATION AS MODIFIED BY THE 2004 ADDENDUM<sup>(1)</sup></b>					
<b>New Equipment:</b>					
Pumps	-	-	0.6	-	-
Valves	-	-	11.5	-	-
Flanges	-	-	3.2	-	-
Process Drains	-	-	1.3	-	-
Modified Storage Tank	-	-	0.2	-	-
Heater with Low NOx Emissions	-	-	-	-8.2 to -16.9 <sup>(2)(3)</sup>	-
<b>Total Emissions from New Equipment</b>	-	-	<b>16.8</b>	-	-
<b>Removed Equipment:</b>					
Valves	-	-	0.1	-	-
Flanges	-	-	0.4	-	-
<b>Total Emissions from Removed Equipment</b>	-	-	<b>0.5</b>	-	-
Emissions from Delivery Trucks	6.9	0.2	0.9	8.9	0.1
<b>ULSD Project Emissions<sup>(1)</sup></b>	6.9	0.2	17.2	0.7 to -8.0 <sup>(3)</sup>	0.1
<b>EMISSIONS FROM CURRENTLY PROPOSED PROJECT MODIFICATION</b>					
New SCR Unit	-	-	-	-6.8 to -12.8 <sup>(3)</sup>	-
<b>Total Revised Project Emissions</b>	6.9	0.2	17.2	-6.1 to -20.8 <sup>(3)</sup>	0.1
SCAQMD Threshold <sup>(4)</sup>	550	150	55	55	150
Significant?	NO	NO	NO	NO	NO

(1) Source: 2004 Final Negative Declaration as modified in the 2004 Addendum.

(2) A negative number indicates emissions reduction. The actual emissions associated with the low NOx burners were not reported in the 2004 Final Negative Declaration or the 2004 Addendum but are estimated here for clarity.

(3) Estimated emission reductions based on the range from average to maximum firing rate.

(4) SCAQMD CEQA Threshold = threshold criteria for determining environmental significance of construction activities, as provided in the South Coast Air Quality Management District's 1993 Handbook for Air Quality Analysis.

There will be no changes in the emissions of other criteria pollutants from the heater, as shown in Table 1 of the Addendum, because there will be no increase in average firing in the replacement charge heater B-401, compared to the existing charge heater B-201. Furthermore, the maximum rated firing capacity of the new heater will be slightly below existing heater B-201 maximum rated firing.

As shown in Table 2-3, the emissions associated with the ConocoPhillips ULSD project, as modified, will be below the SCAQMD's thresholds. Replacing heater B-201 with

heater B-401 and installing low NOx burners plus the SCR Unit is expected to result in an overall emission decrease of in the range of six to 21 pounds per day of NOx. Therefore, no significant adverse air quality impacts are expected, either individually or cumulatively.

### **Ammonia Emissions**

Operation of the SCR Unit will require injection of aqueous ammonia to control NOx emissions. The Wilmington Plant currently receives, stores and uses ammonia for another SCR Unit at the facility. *Aqueous* ammonia required for the new SCR Unit will be stored in the existing *aqueous* ammonia storage tank. The existing ammonia storage tank is a pressurized tank, so no emissions are expected from the storage tank due to the added throughput. The ammonia impacts associated with ammonia “slip” are discussed herein under 3. d) toxic air contaminants.

### **Truck Trip Emissions**

The project modifications also will involve the transport of aqueous ammonia to the site. ConocoPhillips estimates that a maximum of 1,525 gallons per year will be required to operate the new additional SCR Unit. Based on the ammonia use, ConocoPhillips estimates that, at most, one aqueous ammonia truck trip per year will be required to transport the aqueous ammonia to the site. *The anhydrous ammonia cylinders would be delivered to the site from a supplier that routinely supplies specialty gases to the Refinery. The supplier delivers gases to the Refinery on a routine basis (about once a week). The anhydrous ammonia cylinders would be transported to the Refinery during one of these routine deliveries, so that no increase in trips would be required. The anhydrous ammonia cylinders will only be used in the event that the aqueous ammonia supply to the SCR Unit is interrupted. If not used, the cylinders would be replaced once every ten years, per U.S. Department of Transportation requirements.* The catalyst in the SCR Unit will require replacement once every five to ten years. Only one truck per day (once every five to ten years) would be expected during the infrequent removal and replacement of SCR Unit catalyst.

The 2004 Final Negative Declaration indicated that the ULSD project will generate an additional two to three trucks per day during catalyst changing of the Unit 90 reactors, which will occur once every two to three years. The 2004 Negative Declaration concluded that on a “worst-case” day (once every two to three years), truck traffic could increase by up to three truck trips on a single day. Therefore, the project emissions were revised in the 2004 Final Negative Declaration to include the emissions from three additional truck trips per day, which were calculated to be seven pounds per day of CO, one pounds per day of VOC, nine pounds per day of NOx, and less than one pound per day of SOx and PM10 each. The inclusion of one aqueous ammonia delivery truck (one per year) and the truck to transport replacement SCR catalyst (one every five to ten years) will not increase the daily “worst-case” estimate for truck deliveries of three per day because the probability of overlapping delivery days over one year is highly unlikely. Thus, the peak daily emissions from delivery truck trips will not change. This is due to the fact that the emission factors for trucks associated with ammonia and SCR catalyst

deliveries are identical to the emission factors associated with trucks delivering catalyst to Unit 90. In addition, the distance that the delivery trucks (either SCR catalyst, ammonia or Unit 90 catalyst) would travel is also similar (about 50 miles). No incremental increase in emissions associated with truck deliveries due to the proposed project modifications is expected.

In the unlikely event that all truck trips associated with the ULSD project occurred on the same day (three truck trips per year from the 2004 Final Negative Declaration and the two truck trips per year for the current project), the emissions would still be below the SCAQMD significance thresholds. The total truck emissions assuming all five trucks travel on the same day is 11.6 pounds per day of CO, 1.6 pounds per day of VOC, 14.8 pounds per day of NOx, 0.12 pound per day of SOx, and 0.26 pound per day of PM10. These emission increases would still be less than the SCAQMD significance thresholds and, therefore, less than significant.

The incremental effect of the proposed project modifications (i.e., the installation of the SCR Unit) will be a decrease in NOx emissions. When compared to the overall emission increases and decreases associated with the entire ULSD project, the proposed project will result in a NOx emission reduction in the range of about six to 21 pounds per day (see Table 2-3, Total Revised Project Emissions). The emissions of CO, PM10, VOCs, and SOx will be less than the SCAQMD significance thresholds; therefore, no significant adverse air quality impacts are expected. The proposed project modifications are required to comply with SCAQMD's BACT requirements. Thus, the proposed project will not diminish an existing air quality rule or future compliance requirement. See the discussion under 3.d) Toxic Air Contaminants for a discussion of the impacts associated with ammonia slip.

**3. c) Cumulative Impacts:** CEQA Guidelines indicate that cumulative impacts of a project shall be discussed when the project's incremental effect is cumulatively considerable, as defined in CEQA Guidelines §15065(c). SCAQMD policy defines cumulatively considerable air quality impacts as impacts that exceed project-specific significance thresholds. Indeed, it is for this reason the SCAQMD's air quality significance thresholds apply to both project-specific and cumulative impacts. Since criteria and toxic air contaminant emissions from the proposed project do not exceed the applicable significance threshold, they are not considered to be cumulatively considerable. As a result, the proposed ULSD project is not expected to create significant adverse air quality impacts for criteria or toxic air contaminants (see Section 3d).

**3. d) Toxic Air Contaminants:** The 2004 Final Negative Declaration (pages 2-11 through 2-13 and Appendix A) and the 2004 Addendum (p. 6-8) evaluated the chronic and acute health risks related to exposure to toxic air contaminants. The proposed project modifications will increase the use of ammonia at the Wilmington Plant and potentially generate ammonia emissions through ammonia slip in heater B-401 from the operation of the SCR Unit. Ammonia is regulated as a toxic air contaminant under SCAQMD Rule 1401, New Source Review for Toxic Air Contaminants for its chronic and acute health effects. The highest acute hazard index for the ULSD project evaluated in the 2004 Final

Negative Declaration was 0.0002. The highest chronic hazard index for the ULSD project evaluated in the 2004 Final Negative Declaration was 0.0002 (see 2004 Final Negative Declaration, Appendix A). The hazard index for both the acute and chronic health impacts were considered to be less than significant because they are both well below the SCAQMD CEQA significance threshold of 1.0.

Ammonia emissions associated with the proposed SCR Unit were estimated using the SCAQMD limit for ammonia slip of five ppm (see Appendix A). BACT for ammonia emissions is considered to be five ppm and this limit will be included in the SCAQMD permit to construct/operate. The estimated ammonia emissions from the current proposed project are 0.107 pound per hour, and 938 pounds per year.

A Tier 1 screening health risk assessment was prepared for the proposed ammonia emissions increase associated with the SCR Unit, using the SCAQMD Rule 1401 Risk Assessment Procedures (Version 6.0). The Risk Assessment Procedures establish a chronic screening level of 23,900 pounds per year, which is the highest level of ammonia emissions that can be emitted before triggering a chronic hazard index of 1.0, the SCAQMD CEQA significance threshold. The estimated ammonia emissions of 938 pounds per year are well below the yearly chronic screening level for ammonia. The chronic hazard index associated with ammonia emissions is estimated by dividing the ammonia emissions by the screening level ( $938/23,900 = 0.039$ ); therefore, the chronic hazard index for the proposed project modification is less than 1.0, the SCAQMD CEQA significance threshold. Further, the overall hazard index associated with the emissions evaluated in the 2004 Final Negative Declaration (as modified by the 2004 Addendum) plus the ammonia emissions associated with the proposed project modification are also less than significant ( $0.039 + 0.0002 = 0.0392$ ). No significant adverse chronic health impacts are expected due to exposure to ammonia emitted by the ULSD project, as modified.

A screening health risk assessment was also prepared to evaluate the potential for acute health impacts. The one-hour ammonia emission estimates (0.107 pound per hour) were compared to the acute screening level for ammonia (8.57 pounds per hour). The acute screening level of 8.57 pounds per hour is the highest level of ammonia emissions that can be emitted before triggering an acute hazard index of 1.0, the SCAQMD CEQA significance threshold. The estimated hourly ammonia emission rate of 0.107 lbs/hr is well below the hourly screening threshold of 8.57 lbs/hr for ammonia. The acute hazard index associated with ammonia emissions is estimated by dividing the ammonia emissions by the screening level ( $0.107/8.57 = 0.0123$ ); therefore, the acute hazard index for the proposed project modification is less than 1.0, the SCAQMD CEQA significance threshold. Further, the overall hazard index associated with the emissions evaluated in the 2004 Final Negative Declaration (as modified by the 2004 Addendum) plus the ammonia emissions associated with SCR Unit the are also less than significant ( $0.0123 + 0.0002 = 0.0125$ ). Therefore, the acute hazard index for the ULSD project as modified remains less than 1.0, the SCAQMD CEQA significance threshold and, thus, no significant adverse acute health impacts are expected due to exposure to ammonia.

**3. e)** As discussed in the 2004 Final Negative Declaration (see page 2-14), fugitive emissions or leaks from ULSD project equipment could result in potential odor impacts, but these odors would remain below the significance threshold. Modeling completed as part of the health risk assessment in the 2004 Final Negative Declaration (see page 2-14) indicated that the ground level concentration based on the maximum hourly hydrogen sulfide concentration, is orders of magnitude below the odor threshold (0.00483 ug/m<sup>3</sup> vs 42 ug/m<sup>3</sup>) for hydrogen sulfide.

The proposed project modification is not expected to result in an increase in odors. Ammonia can have a strong odor; however, the proposed project is not expected to generate substantial ammonia emissions, since the project will use aqueous ammonia, and the ammonia will be stored in an enclosed pressurized tank, which eliminates ammonia emissions. Ammonia emissions from the SCR Unit stack (also referred to as ammonia slip) will be limited to 5.0 ppm as emitted from the stack. Since exhaust emissions are bouyant as a result of being heated, ammonia will disperse and ultimate ground level concentrations will be substantially lower than 5.0 ppm. Five ppm is below the odor threshold for ammonia of 20 ppm (OSHA, 2005). The Refinery maintains a 24-hour environmental surveillance effort, which helps to minimize the frequency and magnitude of odor events. No odors are expected from the new equipment. Potential odor impacts from the proposed project are not expected to be significant. Therefore, no significantly adverse incremental odor impacts are expected due to the proposed project modification, and the ULSD project, as modified, will remain insignificant for odors impacts.

**3.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that the impacts of the ULSD project on air quality are less than significant. The inclusion of an SCR Unit will further reduce operational emissions of NOx over the project analyzed in the 2004 Final Negative Declaration and 2004 Addendum. The analysis of the health impacts from air toxics emissions from the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification, including ammonia slip emissions, were also concluded to be less than significant. Therefore, no mitigation measures are required for the ULSD project, as modified.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>IV. BIOLOGICAL RESOURCES.</b> Would the project:			
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

- |    |  |                          |                          |                                     |
|----|--|--------------------------|--------------------------|-------------------------------------|
| b) | Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?        | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) | Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?                            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) | Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**4.1 Significance Criteria**

The impacts on biological resources will be considered significant if any of the following criteria apply:

The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.

The project interferes substantially with the movement of any resident or migratory wildlife species.

The project adversely affects aquatic communities through construction or operation of the project.

**4.2 Environmental Setting and Impacts**

4. a), b), c), d), e), and f) Biological resources were discussed in the 2004 Final Negative Declaration, Chapter 2, Biological Resources (page 2-15) and were determined to be less than significant. The proposed project modification will not change the biological resources analysis from the 2004 Final Negative Declaration. The SCR Unit will be fabricated off-site at an out-of-state manufacturing facility and transported to the Wilmington Plant for installation. All construction activities on-site at the Wilmington Plant will occur within the confines of an existing, developed industrial area where native vegetation has already been removed. For these reasons, the current proposed project will not conflict with local, regional or state Conservation Plans. The area contains industrial activities and does not support riparian habitat, federally protected wetlands, or migratory corridors. Based on a review of California Natural Diversity Database maps for the project areas, there are no sensitive, threatened, or endangered plant or animal species in the immediate vicinity of the Wilmington Plant. The ULSD project impacts on biological resources were considered less than significant in the 2004 Final Negative Declaration and will remain less than significant with the proposed project modification.

**4.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to biological resources are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to biological resources nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on biological resources. Therefore, no mitigation is required or proposed.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>V. CULTURAL RESOURCES.</b> Would the project:			
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of a archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

geologic feature?

- d) Disturb any human remains, including those interred outside a formal cemeteries?

### 5.1 Significance Criteria

Impacts to cultural resources will be considered significant if:

The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.

Unique paleontological resources are present that could be disturbed by construction of the proposed project.

The project would disturb human remains.

### 5.2 Environmental Setting and Impacts

**5. a), b), c), and d)** Cultural resources were discussed in the 2004 Final Negative Declaration, Chapter 2, Cultural Resources (page 2-17) and were determined to be less than significant. The proposed project modifications do not change in the cultural resources analysis from the 2004 Final Negative Declaration in any way. There are no prehistoric or historic structures or objects within the Wilmington Plant or adjacent areas. The SCR Unit will be fabricated off-site at an out-of-state manufacturing facility. Because the addition of an SCR Unit is not expected to require any new grading/trenching or foundation construction, on-site installation of an SCR Unit does not impact the cultural resources analysis in any way. No existing structures at the Wilmington Plant are considered architecturally or historically significant. The entire Wilmington Plant site has been previously graded and developed. No known human remains or burial sites have been identified at the Wilmington Plant during previous construction activities so the proposed project is not expected to disturb any human remains. No significant adverse impacts on cultural resources are expected.

### 5.3 Mitigation Measures

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to cultural resources are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to cultural resources nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on cultural resources. Therefore, no mitigation is required or proposed.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>VI. ENERGY.</b> Would the project:			
a) Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the need for new or substantially altered power or natural gas utility systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Create any significant effects on local or regional energy supplies and on requirements for additional energy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create any significant effects on peak and base period demands for electricity and other forms of energy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with existing energy standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**6.1 Significance Criteria**

The impacts to energy resources will be considered significant if any of the following criteria are met:

The proposed project conflicts with adopted energy conservation plans or standards.

The proposed project results in substantial depletion of existing energy resource supplies.

An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.

The proposed project uses non-renewable resources in a wasteful and/or inefficient manner.

**6.2 Environmental Setting and Impacts**

**6. a)** The 2004 Final Negative Declaration explained that the ULSD project is not expected to conflict with an adopted energy conservation plan because there is no known energy conservation plan that would apply to this proposed project. Because there is no applicable energy conservation plan, the SCR Unit likewise cannot conflict with such a plan.

**6. b), c), d), and e)** Potential energy impacts associated with the construction and operation of the ULSD project were discussed in the 2004 Final Negative Declaration, Chapter 2, Energy (page 2-19), and were determined to be less than significant.

The Wilmington Plant operates a Cogeneration Unit that on average generates about 48 megawatts (MW) of electricity. The refinery electrical consumption is typically slightly more than the capacity of the Cogeneration Unit, so the Cogeneration Units supplies most of the electricity required by the Wilmington Plant on an average basis. Small quantities of electricity are generally imported from the Los Angeles Department of Water and Power (LADWP) (one to five MW).

Only a minimal amount of incremental energy will be required to operate the SCR Unit. The only equipment requiring additional energy will be a vaporization unit to supply ammonia vapor to the SCR Unit. The estimated increased in electricity associated with the vaporization unit is about ten kilowatts for the air heater and air blower. The increase in electricity is so small that the installation of the SCR Unit is not expected to increase the electrical requirements from the proposed project by a noticeable amount. Other portions of the ULSD project were expected to result in an average increase of about 1.1 megawatts of electrical use at the Wilmington Plant (see 2004 Negative Declaration, page 2-19). The total increase in electricity from the modified ULSD project (project identified in the 2004 Final Negative Declaration plus SCR Unit) is 1.11 MW. The electrical requirement of the ULSD project as modified can be met with existing electrical supply facilities and infrastructure. The Los Angeles Department of Water and Power (LADWP) supplies electricity as needed to handle routine electricity fluctuations. The increase in electricity can be supplied by LADWP. LADWP supplies more than 22 million megawatt hours of electricity a year. LADWP has approved an Integrated Resource Plan (IRP) that includes financing for an additional 2,400 megawatts of power generation through re-powering, development of new renewable energy resources, and energy efficiency programs (LADWP, 2003). Sufficient electrical supplies are available from LADWP to handle the estimated electricity increase from the proposed project. Therefore, no significant adverse electricity demand impacts are anticipated from the proposed project.

The SCR Unit will not increase the use of natural gas or any other forms of energy (other than electricity discussed above) at the Wilmington Plant. Therefore, no incremental effects on natural gas usage or other forms of energy are expected due to the operation of the proposed modification to the ULSD project.

### **6.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to energy are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any significant incremental impacts to energy nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on energy. Therefore, no mitigation is required or proposed.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>VII. GEOLOGY AND SOILS.</b> Would the project:			
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**7.1 Significance Criteria**

The impacts on the geological environment will be considered significant if any of the following criteria apply:

Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.

Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.

Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.

Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.

Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

## **7.2 Environmental Setting and Impacts**

**7. a) and b)** Geology and soils resources at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Geology and Soils (pages 2-20), and were determined to be less than significant. There is no change in the geology and soils analysis from the 2004 Final Negative Declaration associated with the proposed project modifications. The location of the SCR Unit will not change from the geology described in the 2004 Negative Declaration. The ULSD project impacts on geology and soils were considered to be less than significant in the 2004 Final Negative Declaration because all new structures would need to comply with the Uniform Building Code Zone 4 earthquake requirements. The addition of an SCR Unit is not expected to require any new grading/trenching or foundation construction. The SCR Unit also will need to comply with the Uniform Building Code Zone 4 earthquake requirements. As such, the conclusions in the 2004 Final Negative Declaration regarding seismic related ground shaking and soil erosion have not changed.

**7. c) and d)** As explained in the 2004 Final Negative Declaration, liquefaction would most likely occur in unconsolidated granular sediments that are water saturated less than 30 feet below ground surface. Based on the latest seismic hazards maps developed under the Seismic Hazards Mapping Act, the Wilmington Plant, is not located in an area of historic liquefaction (California Division of Mines and Geology, Map of Seismic Hazard Zones). Liquefaction is considered unlikely in relationship to the proposed project since the parameters required for liquefaction to occur are not evident at the site, e.g., unconsolidated granular soils and a high water table. At the Wilmington, ground water occurs greater than 40 feet below the surface grade and the soils below the Plant are not conducive to liquefaction. Therefore, no significant impacts from liquefaction are expected for the ULSD project. The SCR Unit would be placed on the same soils as were analyzed in the 2004 Final Negative Declaration, therefore the conclusion with respect to liquifaction remains unchanged.

**7. e) Wastewater Discharge**

The Wilmington Plant and the ULSD project will not use septic tanks or alternative wastewater disposal systems, therefore, no significant impacts on soils from alternative wastewater disposal systems are expected for the ULSD project. This remains true with the addition of the SCR Unit.

**7.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to geology and soils are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to geology and soil nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on geology and soils. Therefore, no mitigation is required or proposed.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>VIII. HAZARDS AND HAZARDOUS MATERIALS.</b> Would the project:			
a) Create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- |  |                          |                          |                                     |
|--|--------------------------|--------------------------|-------------------------------------|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Significantly increased fire hazard in areas with flammable materials?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

### **8.1 Significance Criteria**

The impacts associated with hazards will be considered significant if any of the following occur:

Non-compliance with any applicable design code or regulation.

Non-conformance to National Fire Protection Association standards.

Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.

Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG-2) levels.

### **8.2 Environmental Setting and Impacts**

As described in the 2004 Final Negative Declaration, the ConocoPhillips Wilmington Plant uses a number of hazardous materials at the site to manufacture petroleum products. The major types of public safety risks consist of impacts from toxic substance releases, fires and explosions. Toxic substances handled by the Wilmington Plant include

hydrogen sulfide, ammonia, regulated flammables like propane and butane, and petroleum products like gasoline, fuel oils, and diesel. The types of hazards associated with Refinery operations are identified below.

**Toxic gas clouds:** Toxic gas clouds are releases of volatile chemicals (e.g., anhydrous ammonia, and hydrogen sulfide) that could form a cloud and migrate off-site, thus, creating adverse health impacts to any exposed individuals. “Worst-case” conditions tend to arise when very low wind speeds coincide with accidental release, which can allow the chemicals to accumulate rather than disperse.

**Torch fires (gas and liquefied gas releases), flash fires (liquefied gas releases), pool fires, and vapor cloud explosions (gas and liquefied gas releases):** The rupture of a storage tank or vessels containing a flammable gaseous material (like propane), without immediate ignition, can result in a vapor cloud explosion. The “worst-case” upset assumes that a release occurs and produces a large aerosol cloud with flammable properties. If the flammable cloud does not ignite after dispersion, the cloud would simply dissipate. If the flammable cloud were to ignite during the release, a flash fire or vapor cloud explosion could occur. If the flammable cloud were to ignite immediately upon release, a torch fire would ensue.

**Thermal Radiation:** Thermal radiation is the heat generated by a fire and the potential impacts associated with exposure. Exposure to thermal radiation would result in burns, the severity of which would depend on the intensity of the fire, the duration of exposure, and the distance of an individual to the fire.

**Explosion/Overpressure:** Process vessels containing flammable explosive vapors and potential ignition sources are present at the Wilmington Plant. Explosions may occur if the flammable/explosive vapors came into contact with an ignition source. An explosion could cause impacts to individuals and structures in the area due to overpressure.

### **8 a) and b) Potential Hazards**

**On-Site Hazards from Unit 90 Reactors:** The ULSD project will increase the size of the reactors in the Mid-Barrel Hydrotreater Unit 90. The hazards associated with the increased reactor size were evaluated in the 2004 Final Negative Declaration (see pages 2-28 through 2-30 and Appendix B) and were determined to be less than significant. The hazard evaluation was prepared to determine the potential consequences that could result from accidental release scenarios that could occur with the existing Unit 90 Hydrotreater reactors as well as the ULSD modifications to the reactors. The releases were modeled to determine the maximum downwind distance to the lower flammable limit (LFL) for the flammable material and the ERPG-2 limit for toxic material. The 2004 Final Negative Declaration concluded that the ULSD project would result in a small increase in the distance to the LFL (from 260 to 275 feet) and an increase in the distance to the ERPG-2 level (from 655 to 940 feet). The modified reactors are located about 1,000 feet from the nearest property boundary so that the identified hazards are expected to remain on-site; therefore, significant hazard impacts were not expected from the ULSD project as

originally proposed. The operation of the SCR Unit will not affect the operation of Unit 90. Installation of the SCR Unit will not alter the potential hazards associated with the Unit 90 reactors, i.e, distance to the lower flammable limit or emergency response planning guideline level or ERPG-2 for hydrogen sulfide. The SCR Unit does not handle or produce hydrogen sulfide and does not use or require flammable materials. Therefore, the hazard impacts associated with the new Unit 90 reactors will be unchanged from those identified in the 2004 Final Negative Declaration as a result of the new SCR Unit.

**Soil Contamination:** Conclusions regarding the soil contamination at the site discussed in the 2004 Final Negative Declaration and the 2004 Addendum were that the impact would be less than significant as the excavation and handling of contaminated soil was heavily regulated and ConocoPhillips has developed detailed procedures to manage these activities. The proposed project modifications will not change the analysis of soil contamination impacts. The SCR Unit will be installed in Block 34, adjacent to the B-401 charge heater evaluated previously in the 2004 Negative Declaration. This is an area that was previously identified and evaluated for the ULSD project. Moreover, the installation of the new SCR Unit is not expected to require additional grading or increase the potential to uncover contaminated soils. Accordingly, there will be no incremental hazards relating to excavation of contaminated soils associated with the addition of SCR Unit.

**SCR Unit:** The modifications to the ULSD project require the installation of a new SCR Unit, which requires the use of aqueous ammonia. The proposed SCR system requires ammonia to react with NO<sub>x</sub> emissions in the exhaust gases to reduce the NO<sub>x</sub> emissions. Therefore, the proposed project will require the additional transport, storage and handling of aqueous ammonia (30 percent ammonia). There are hazards associated with the handling and use of aqueous ammonia. The hazards associated with the use of aqueous ammonia are reduced through design, operations, maintenance, regulatory, and administrative controls. Design standards are developed through industry groups, various independent institutes, and government agencies. Operational controls include automatic devices to control and monitor process variables, as well as documented procedures for manual operations. Routine preventative maintenance and inspections of critical equipment help to prevent unscheduled process shutdowns and potential equipment failures. Administrative controls include operator training, documentation of equipment inspection and maintenance history, and procurement prequalification controls over contractors and vendors.

ConocoPhillips is subject to and will continue to be subject to the following existing safety design and process standards in the operations of the equipment for the facility:

- The California Code of Regulations, Title 8 – contains minimum requirements for equipment design.
- Industry Standards and Practices – codes for design of various equipment, including the American National Standards Institute (ANSI), American Society of Mechanical Engineers (ASME), and National Fire Protection Association (NFPA).

The standards noted above and other applicable design standards will govern the design of mechanical equipment such as pressure vessels, tanks, pumps, piping, and compressors. No further analysis of these standards is needed in this project hazard analysis. Adherence to codes will be verified by the City's building inspector before the SCR equipment becomes operational.

The proposed project modifications would use an existing aqueous ammonia tank at the Wilmington Plant to store the ammonia for the new SCR Unit. No new storage tanks are required at the site as a result of the proposed project. Therefore, no increase in on-site hazards would be expected at the Wilmington Plant. The consequences related to an accidental release of aqueous ammonia would remain unchanged because the same amount of ammonia would be stored on-site regardless of the new SCR Unit.

A back-up supply consisting of two 150-pound cylinders of anhydrous ammonia will also be installed as part of the aqueous ammonia vaporization skid at the new heater. This back-up ammonia supply will be manually activated only if the normal aqueous supply fails. It should be noted that the ConocoPhillips Wilmington Plant already stores, transports and uses anhydrous ammonia. The Wilmington Plant has two existing anhydrous ammonia storage tanks. In addition, anhydrous ammonia cylinders are already used as a back-up ammonia supply at another SCR Unit. Therefore, the proposed project modifications will not add new chemicals to the facility.

The potential impacts of a release from the anhydrous ammonia cylinders were evaluated to determine if anyone outside of the Refinery boundaries could be exposed to ammonia concentrations in excess of the U.S. EPA's ERPG-2 levels, the SCAQMD CEQA significance thresholds. Refinery workers are trained on refinery hazards and have access to personal protective equipment. The proposed project modifications will require compliance with various regulations, including OSHA regulations (29 CFR Part 1910) that require the preparation of a fire prevention plan, and 20 CFR Part 1910 and Title 8 of California Code of Regulations that require prevention programs to protect workers that handle toxic, flammable, reactive, or explosive materials. The Refinery currently handles ammonia and has implemented the appropriate training, notification, and protective measures to protect workers that handle or use ammonia.

The release scenario for ammonia cylinders assumed a rupture in the piping leaving the valve on a 150-pound ammonia cylinder (DOT 3A480) (see Appendix B). In order to provide a "worst-case" analysis, it was assumed that the broken cylinder remains upright. The ammonia release will then be from the vapor space in the cylinder, through the dip tube, through the valve and out into the atmosphere. The standard dip tube (inside the cylinder) is 1/4-inch tubing.

Under worst-case meteorological conditions, it was determined that the distance that the release would travel to the ERPG-2 level (200 ppm) would be 60 feet for a release from one cylinder and 80 feet for a simultaneous release from both cylinders, which is well within the boundaries of the Refinery. It should be noted that the cylinders will empty in just a few seconds (12 to 14 seconds), thus any downwind exposure would be short term

(see Appendix B). The storage of the small quantity of anhydrous ammonia is expected to be less than significant as exposure would be limited to within 80 feet of the SCR Unit. Therefore, the general public would not be exposed to ammonia concentrations that exceed the ERPG-2 levels.

**Transportation Hazards:** Aqueous ammonia is a concentration of 30 percent ammonia and 70 percent water formulation that will be delivered to the facility and stored on-site. Thirty percent concentrated ammonia is being used to reduce the inherent risk of handling anhydrous ammonia, which has a concentration of 100 percent ammonia. Use and transport of anhydrous ammonia involves greater risk than aqueous ammonia because it is stored and transported under pressure. In the event of a leak or rupture of a tank, anhydrous ammonia is released and vaporizes into the gaseous form, which is its normal state at standard atmospheric temperatures and pressure, and produces a toxic cloud. Aqueous ammonia, however, is a liquid at ambient temperatures and gas is only produced when a liquid pool from a spill evaporates.

Under current California Office of Emergency Services regulations implementing the CalARP requirements, there is no threshold concentration of aqueous ammonia for exclusion from the program (California Health and Safety Code §2770.1)

Aqueous and anhydrous ammonia are currently routinely delivered to the ConocoPhillips facility for use in other SCR units. ConocoPhillips receives ammonia from a local ammonia supplier located in the City of Los Angeles. Deliveries of aqueous ammonia are made to the facility by tanker truck via public roads. The maximum capacity of a tanker truck is 6,000 gallons and ConocoPhillips estimates a maximum of 1,525 gallons per year will be required to operate the new SCR Unit. Therefore, based on the onsite storage capacity and consumption of ammonia, delivery frequency from the supplier to the facility would increase by at most about one truck per year to supply the new SCR Unit for the B-401 charge heater.

The anhydrous ammonia cylinders would be delivered to the site from a supplier that routinely supplies specialty gases to the Refinery. The supplier delivers gases to the Refinery on a routine basis (about once a week). The anhydrous ammonia cylinders would be transported to the Refinery during one of these routine deliveries, so that no increase in trips would be required. The anhydrous ammonia cylinders will only be used in the event that the aqueous ammonia supply to the SCR Unit is interrupted. If not used, the cylinders would be replaced once every ten years, per U.S. Department of Transportation requirements. The hazards associated with the transport of ammonia are negligible and less than significant because no increase in trips is expected and anhydrous ammonia associated with the proposed project modification is expected to occur once every ten years.

Regulations for the transport of hazardous materials by public highway are described in 49 CFR 173 and 177. Although the trucking of aqueous ammonia and other hazardous materials is regulated for safety by the U.S. Department of Transportation, there is a possibility that a tanker truck could be involved in an accident spilling its contents. The

factors that enter into accident statistics include distance traveled and type of vehicle or transportation system. Factors affecting automobiles and truck transportation accidents include the type of roadway, presence of road hazards, vehicle type, maintenance and physical condition, and driver training. A common reference frequently used in measuring probable risk of an accident is the number of accidents per million miles traveled. Complicating the assessment of probable risk is the fact that some accidents can cause significant damage without injury or fatality.

Every time hazardous materials are moved from the site of generation, opportunities are provided for accidental (unintentional) release. A study conducted by the U.S. EPA indicates that the expected number of hazardous materials spills per mile shipped ranges from one in 100 million to one in one million, depending on the type of road and transport vehicle used. The U.S. EPA analyzed accident and traffic volume data from New Jersey, California, and Texas, using the Resource Conservation and Recovery Act Risk/Cost Analysis Model and calculated the accident involvement rates presented in Table 2-4. The study concluded that the release rate for tank trucks is much lower than for any other container type (Los Angeles County, 1988). The data in Table 2-4 are for all types of trucks.

**TABLE 2-4**

**TRUCK ACCIDENT RATES FOR CARGO ON HIGHWAYS**

<b>Highway Type</b>	<b>Accidents Per 1,000,000 miles</b>
Interstate	0.13
U.S. and State Highways	0.45
Urban Roadways	0.73
Composite*	0.28

\* Average number for transport on interstates, highways, and urban roadways.

The accident rates developed based on transportation in California were used to predict the accident rate associated with trucks transporting aqueous ammonia to the facility. Assuming an average truck accident rate of 0.28 accidents per million miles traveled (Los Angeles County, 1988), the estimated accident rate associated with transporting aqueous ammonia for this project is 0.000014, or about one accident every 71,427 years.

The actual occurrence of an accidental release of a hazardous material cannot be predicted. The location of an accident or whether sensitive populations would be present in the immediate vicinity also cannot be identified. In general, the shortest and most direct route that takes the least amount of time would have the least risk of an accident. Hazardous material transporters do not routinely avoid populated areas along their routes, although they generally use approved truck routes that take population densities and sensitive populations into account.

The hazards associated with the transport of regulated (CCR Title 19, Division 2, Chapter 4.5 or the CalARP requirements) hazardous materials, including aqueous ammonia,

would include the potential exposure of individuals in the event of an accident that would lead to a spill. The major route for aqueous ammonia to reach the facility is from the 110 freeway to Anaheim Street. Factors such as amount transported, wind speed, ambient temperatures, route traveled, distance to sensitive receptors are considered when determining the consequence of a hazardous material spill.

In the unlikely event that the tanker truck would rupture and release the entire 6,000 gallons of aqueous ammonia, the ammonia solution would have to pool and spread out over a flat surface in order to create sufficient evaporation to produce a significant vapor cloud. For a road accident, the roads are usually graded and channeled to prevent water accumulation and a spill would be channeled to a low spot or drainage system, which would limit the surface area of the spill and the subsequent ammonia emissions. Additionally, the roadside surfaces may not be paved and may absorb some of the spill. Without this pooling effect on an impervious surface, the spilled ammonia would not evaporate into a toxic cloud and impact residences or other sensitive receptors in the area of the spill. Aqueous ammonia is currently shipped to the Refinery. Further, the proposed SCR Unit will not increase the number of ammonia truck transport trips per day, beyond the number already occurring. As a result the consequence (exposure) to the local population would not change as a result of the proposed SCR Unit project.

It is very improbable that there will be an ammonia tanker truck accident with a major release due to the existing Refinery operations and existing precautionary safety measures. The incremental risk associated with the addition of an SCR Unit for the ULSD project is negligible since no new storage tank is necessary and the additional annual amount of aqueous ammonia needed is a small amount that constitutes the need for only one truck trip per year. The addition of the SCR Unit for the ULSD project does not result in any incremental change to the potential severity if a release were to occur. Accordingly, the potential incremental impacts associated with an accidental release of ammonia during transportation for the modified ULSD project are less than significant.

**8. c)** As discussed in the 2004 Final Negative Declaration, no existing or proposed schools are located within one-quarter mile of the existing Wilmington Plant. The addition of the SCR Unit does not change this conclusion, as the SCR Unit will be located within the boundaries of the Wilmington Plant, and will be no closer to schools than the equipment previously evaluated. Trucks are required by the City municipal codes to follow designated truck routes that generally avoid sensitive land uses (e.g., schools and residential areas) to the extent feasible. Ammonia trucks will follow these designated truck routes.

### **Other Hazard Issues**

**8. d)** As described in the 2004 Final Negative Declaration, the Wilmington Plant is not included on the recent list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. There will be no change in project location due to the addition of the SCR Unit. Therefore, the SCR modification does not result in any incremental effect related to hazardous materials at the site and would not result in contamination that would cause the Wilmington Plant to be placed on the list.

**8. e) and f)** As described in the 2004 Final Negative Declaration, the ULSD project site is not within an airport land use plan or within two miles of a public or private airport. There will be no change in project location due to the addition of the SCR Unit. Therefore, the SCR Unit modification does not result in any incremental safety hazards relating to airports in the region.

**8. g)** As described in the 2004 Final Negative Declaration, the ULSD project is not expected to interfere with an emergency response plan or emergency evacuation plan. The ULSD project will result in modifications to the existing Wilmington Plant. All construction activities will occur within the confines of the existing Wilmington Plant so that no emergency response plans should be impacted. ConocoPhillips has implemented emergency response plans at its facility, but no modifications to the plans are expected as a result of the current proposed project. The ULSD project is not expected to alter the route employees would take to evacuate the site, as the evacuation routes generally direct employees outside of the main operating portions of the Wilmington Plant. Installation of the SCR Unit will not add new chemical hazards to the facility nor require new employees to operate. The Refinery currently stores, transports and utilizes aqueous ammonia. The ULSD project, including the proposed SCR Unit modification, is not expected to adversely affect any emergency response plans or require modification to any existing plans.

**8. h) and i)** As described in the 2004 Final Negative Declaration, the ULSD project will not increase the existing risk of fire hazards in areas with flammable brush, grass, or trees. The Wilmington Plant will continue to use and produce flammable materials. No substantial or native vegetation exists within the operational portions of the Wilmington Plant. Therefore, no significant increase in fire hazards is expected at the Wilmington Plant associated with the ULSD project. There will be no change in project location due to the addition of the SCR Unit. Further, 30 percent aqueous ammonia is not considered to be a flammable substance. Therefore, there will be no significantly adverse incremental impact related to such fire hazards. The overall risk from the ULSD project, including the SCR Unit, will be less than significant.

### **Regulatory Programs to Reduce Risk**

The Refinery has been subject to a variety of safety laws and regulations in existence for many years which were crafted to reduce the risk of accidental releases of chemicals at industrial facilities. These laws and regulations are discussed in the 2004 Final Negative Declaration and the 2004 Addendum, and will also reduce the risk of accidental release of ammonia. For the convenience of the reader, the description of these programs is repeated below.

The Occupational Safety and Health Agency (OSHA) passed the Process Safety Management of Highly Hazardous Chemicals Code of Federal Regulations (CFR) 29 910.119 rule in 1992. This rule was designed to address the prevention of catastrophic accidents at facilities handling hazardous substances in excess of specific threshold

amounts through implementation of Process Safety Management (PSM) systems. A major PSM requirement is the performance of process hazard analyses to identify potential process deviations and implement or improve safeguards to prevent accidental releases of chemicals at industrial facilities.

A federal EPA Risk Management Program (RMP) and a more stringent RMP, the California Accidental Release Program (CalARP), were developed for the Wilmington Plant and submitted to appropriate agencies in 1999. The RMPs contain hazard assessments of both worst-case and more credible accidental release scenarios, an accident prevention program, and an emergency response program. The Los Angeles City Fire Department administers the RMP for the Wilmington Plant. In addition, the Wilmington Plant has prepared an emergency response manual, which describes the emergency response procedures that would be followed in the event of any of several release scenarios along with the responsibilities of key personnel. No modifications to the manual are expected to be required because the emergency response manual includes hazards related to the existing use of ammonia at the site.

The Wilmington Plant adheres to the following safety design and process standards:

- The California Health and Safety Code Fire Protection specifications.
- The design standards for petroleum refinery equipment established by American Petroleum Institute, American Society of Mechanical Engineers, the American Institute of Chemical Engineers, the American National Standards Institute, and the American Society of Testing and Materials.
- The applicable Cal-OSHA requirements.
- The Wilmington Plant maintains its own emergency response capabilities, including on-site equipment and trained emergency response personnel who are available to respond to emergencies anywhere within the Wilmington Plant.

The above programs will not be affected by the addition of the SCR Unit and will continue to be implemented at the Wilmington Plant. The OSHA, PSM and RMP requirements already apply to the use and storage of aqueous ammonia at the Wilmington Plant. No changes regarding compliance with these programs are required due to the addition of the SCR Unit.

### **8.3 Mitigation Measures**

The 2004 Final Negative Declaration concluded that the ULSD project would not cause any significant adverse effects relating to hazards and hazardous materials. The incremental increase in the hazards associated with the addition of the SCR Unit will not cause a new significant environmental effect. The SCR Unit will require the transportation, storage and use of ammonia; however ammonia is currently used at the

Refinery for other SCR units. The new SCR Unit for the ULSD project will not increase hazards associated with storage of aqueous ammonia, nor will it significantly increase the impacts in the event of an accidental release from the back-up supply of anhydrous ammonia. The new SCR Unit for the ULSD project will result in a negligible increase in the chance of an accidental release during transportation, but will not result in any incremental increase in the potential effects of an accidental release because ammonia is already transported to the Refinery. The project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification is not expected to cause an overall significant adverse impact on hazards or hazardous materials. Therefore, no mitigation measures are required for the ULSD project as modified.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>IX. HYDROLOGY AND WATER QUALITY.</b>			
Would the project:			
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- substantial additional sources of polluted runoff?
- |  |                          |                          |                                     |
|--|--------------------------|--------------------------|-------------------------------------|
| f) Otherwise substantially degrade water quality?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| k) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| l) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                             | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| m) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| n) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| o) Require in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**9.1 Significance Criteria**

Potential impacts on water resources will be considered significant if any of the following criteria apply:

**Water Quality:**

The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.

The project will cause the degradation of surface water substantially affecting current or future uses.

The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.

The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.

The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.

The project results in alterations to the course or flow of floodwaters.

**Water Demand:**

The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use a substantial amount of potable water.

The project increases demand for water by more than five million gallons per day.

**9.2 Environmental Setting and Impacts**

**9. a), f), k), l) and o) Water Quality and Wastewater Generation**

Hydrology and water quality resources at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Hydrology and Water Quality (page 2-32) and were determined to be not significant. There is no change in the hydrology/water quality analysis from the 2004 Final Negative Declaration associated with the addition of an SCR Unit.

As discussed in the 2004 Final Negative Declaration, the ULSD project will result in an estimated increase in water demand and wastewater discharged of about 72,000 gallons per day or about 50 gallons per minute (gpm) (about three percent of the existing discharge) during maximum operating conditions, primarily from boiler blowdown and steam condensate. The proposed project modifications (i.e., installation of the SCR Unit) will not violate water quality standards, degrade water quality, or generate wastewater

because water is not used in the SCR process. Accordingly, the impacts from the ULSD project as modified will remain less than significant.

The proposed project modifications are not expected to increase the stormwater run-off from the Wilmington Plant. The SCR Unit will be installed within the existing Refinery units that were evaluated in the 2004 Final Negative Declaration, and no increase in paved area is expected. Therefore, the ULSD project impacts on hydrology and water quality are expected to remain less than significant.

### **9. b) and n) Water Demand**

The impacts on water demand at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Hydrology and Water Quality (page 2-35) and were determined to be not significant. There is no change in the impacts on water demand from the 2004 Final Negative Declaration associated with the addition of an SCR Unit, because water is not used as part of the SCR process. For the convenience of the reader, the discussion of water demand from the 2004 Final Negative Declaration is summarized below.

The Wilmington Plant uses about 2,000 to 3,500 gpm of fresh water purchased from the LADWP. Additionally about 1,650 gpm of water comes from on-site water wells. The ULSD project described in the 2004 Final Negative Declaration will increase fresh water usage at the Wilmington Plant by about 50 gpm (72,000 gallons per day). The additional water will be purchased from LADWP. In fiscal year 2004, LADWP supplied to its service area about 690,450 acre-feet of water (about  $2.25 \times 10^{11}$  gallons or about 225 billion gallons of water) and is expected to have adequate supplies in the future (LADWP, 2004). Industrial uses consumed about three percent of the total water consumption. LADWP has prepared a water supply assessment study, which indicates that sufficient water supplies are expected over the next 20 years for the LADWP service area. The LADWP assumed an increase in water use at industrial facilities of about 1.3 percent over the 20 year period. The increase in water demand associated with the ULSD project is less than a one percent increase of the projected industrial demand. Water supply impacts from the ULSD project are not considered significant since sufficient water is available from the LADWP.

A portion of the water used at ConocoPhillips is supplied by on-site water wells; however, the increase in water demand for the ULSD project is expected to be supplied by LADWP because of the restrictions on the amount of water from on-site wells that can be used. Therefore, the ULSD project is not expected to result in significant adverse ground water impacts.

### **9. c), d), e) and m) Surface Water**

The impacts on surface water at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Hydrology and Water Quality (page 2-35) and were determined to be less than significant. The addition of the SCR Unit does not change the

impacts on surface water compared to the analysis in the 2004 Final Negative Declaration. The SCR Unit will not require the use of water and will not produce wastewater. In addition, the SCR Unit will be installed in the areas of the existing refinery previously identified in the 2004 Final Negative Declaration, and will not incrementally increase the amount of paved area resulting from the ULSD project. For the convenience of the reader, the discussion of surface water impacts from the 2004 Final Negative Declaration is summarized below.

The ground surface generally slopes from west to east at the Wilmington Plant. Surface water drains to the oil recovery unit for eventual discharge to the sanitary sewer. During rainstorms, the water flow can exceed the 6,000 gpm design flow rate of the oil recovery unit. Large holding tanks are used to store runoff under these conditions. After the event, the stored runoff is then routed through the treatment system and discharged to the sewer.

The ULSD project is not expected to increase the stormwater runoff from the Wilmington Plant. The Wilmington Plant modifications will occur within the existing Refinery units and no increase in paved area is expected. The Stormwater Pollution Prevention Plan will be updated, as necessary, to reflect operational modifications and include additional Best Management Practices, if required. Since stormwater discharge/runoff is not expected to change, the Stormwater Pollution Prevention Plan is not expected to require changes due to the proposed project. If changes are necessary they will go through the appropriate approval process by the Regional Water Quality Control Board. No new storm drainage facilities or expansion of existing storm facilities are expected to be required. Since stormwater discharge or runoff is not expected to change in either volume or water quality, no significant stormwater quality impacts are expected to result from the operation of the proposed project.

### **9. g), h), i) and j) Flood Hazards**

The impacts on flood hazards at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Hydrology and Water Quality (page 2-36) and were determined to be less than significant. The addition of the new SCR Unit will not incrementally increase flood hazards because the SCR Unit is located with the area previously analyzed in the 2004 Final Negative Declaration which concluded the Wilmington Plant is not located within a 100-year flood hazard area or any other flood hazard area. For the convenience of the reader, the discussion of surface water impacts from the 2004 Final Negative Declaration is summarized below.

Based on the topography and/or site elevations in relation to the ocean, the ULSD project is not expected to result in an increased risk of flood, seiche, tsunami or mud flow hazards. The ULSD project would not locate housing within a 100-year flood hazard area. The Wilmington Plant is not located within a 100-year flood hazard zone so no new equipment would be located within a 100-year flood hazard zone. Therefore, no significant adverse impacts associated with flooding are expected from the ULSD project, including the addition of the SCR Unit.

### **9.3 Mitigation Measures**

The 2004 Final Negative Declaration concluded that the ULSD project would not cause any significant adverse effects relating to hydrology and water quality. The addition of the SCR Unit will not result in an incremental increase in water demand, wastewater discharge, or water runoff compared to the impacts discussed in the 2004 Final Negative Declaration. Overall, no significant adverse impacts to hydrology and water quality will be generated by the ULSD project including the currently propose SCR Unit. Therefore, no mitigation measures are required due to the addition of an SCR Unit.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>X. LAND USE AND PLANNING.</b> Would the project:			
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**10.1 Significance Criteria**

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by the City of Los Angeles.

**10.2 Environmental Setting and Impacts**

**10. a), b), and c)** The land use at the Wilmington Plant was discussed in the 2004 Final Negative Declaration, Chapter 2, Land Use (pages 2-36) and determined to be less the significant. There is no change in the land use analysis from the 2004 Final Negative Declaration due to the proposed project modifications. The addition of an SCR Unit does not impact the land use analysis in any way. The installation of the SCR Unit will occur within the confines of the existing Wilmington facility which was previously evaluated in the 2004 Final Negative Declaration. The SCR Unit will be consistent with the zoning for the site (M3 – Heavy Industrial Zoning) and with the City of Los Angeles General Plan. The SCR Unit is compatible with the land use of the site and the surrounding land uses in accordance with the Wilmington-Harbor City Plan (City of Los Angeles, 1999);

and the existing Refinery already operates several SCR units. The proposed addition of SCR would not disrupt or divide an established community. Therefore, the proposed project modification will not result in any incremental environmental impacts on land use, and the overall impact to land use will be not significant.

**10.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to land use are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to land use nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on land use. Therefore, no mitigation is required or proposed.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XI. MINERAL RESOURCES.</b> Would the project:			
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**11.1 Significance Criteria**

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

**11.2 Environmental Setting and Impacts**

**11. a), b), and c)** Mineral resources were discussed in the 2004 Final Negative Declaration, Chapter 2, Mineral Resources (page 2-37) and were determined to be not significant. There is no change in the mineral resources analysis from the 2004 Final Negative Declaration due to the proposed project modifications. The addition of an SCR Unit does not impact the analysis of mineral resources in any way. The SCR Unit will be installed at the Wilmington Plant in an area that was evaluated in the 2004 Final Negative Declaration. There are no known mineral resources within the Wilmington Plant or adjacent areas. Therefore, the addition of the SCR Unit will not result in any incremental impacts on mineral resources.

**11.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to mineral resources are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to mineral resources nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on mineral resources. Therefore, no mitigation is required or proposed.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XII. NOISE.</b> Would the project result in:			
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- |   |                          |                          |                                     |
|---|--------------------------|--------------------------|-------------------------------------|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airship, would the project expose people residing or working in the project area to excessive noise levels?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

### 12.1 Significance Criteria

Impacts on noise will be considered significant if:

Construction noise levels exceed the City of Los Angeles noise ordinance or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.

The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

### 12.2 Environmental Setting and Impacts

**12. a), b), c), and d)** Noise impacts at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Noise (page 2-38) and were determined to be less than significant. There is no change in the noise analysis from the 2004 Final Negative Declaration due to the proposed project modifications. The addition of an SCR Unit is not expected to create new significant noise impacts or make substantially worse existing noise impacts identified in the 2004 Final Negative Declaration or 2004 Addendum.

**Construction Impacts:** The ULSD project noise impacts analyzed in the 2004 Final Negative Declaration were considered to be less than significant for the construction phase, and the proposed project modifications will not alter the type of construction activities at the site. The installation of the SCR Unit will require the same types of construction equipment (e.g., air compressors, cranes, forklift and welders) and the same number of workers during the peak construction phase. Noise levels at the closest residential area are not expected to significantly increase during construction activities as a result of installation of the SCR Unit. As discussed in the 2004 Final Negative Declaration, the noise levels from the construction equipment for the ULSD project are expected to be within the allowable noise levels established by the local noise ordinance

for industrial areas which are about 70 dBA. No increase in the need for peak construction workers, construction equipment, or change in the hours of construction operations is expected due to the installation of the SCR Unit. Therefore, construction of the SCR likewise is expected to remain within the noise levels identified in the 2004 Final Negative Declaration. Further, construction activities will be restricted to daytime hours and occur within an industrial area which will avoid construction noise during the more sensitive nighttime hours.

**Operation Impacts:** During operations the new equipment being installed as part of the SCR Unit will not generate noise beyond what currently exists at the facility. Only small blowers are included as part of the SCR Unit. No noticeable increase in noise is expected from these sources. As discussed in the 2004 Final Negative Declaration, no noticeable noise increase was expected from other portions of the ULSD project. The new equipment will be located within existing industrial areas where noise is generated by adjacent operational equipment. Further, the SCR Unit will be located near the center of the Wilmington Plant and about 2,000 feet away from the closest off-site receptor. Therefore, no incremental noise impacts are expected as a result of the proposed project modification and the overall noise impact from the operation of the ULSD project including the SCR Unit will be less than significant.

**12. e) and f)** The ULSD project site is not located within an airport land use plan or within the vicinity of a private airstrip. Further, the Wilmington Plant is not located within the normal flight pattern of an airport. The installation of the SCR Unit will occur at the Wilmington Plant at the locations previously described and analyzed in the 2004 Final Negative Declaration. Thus, the proposed project modifications will not result in any incremental increase in exposure of people to excessive noise from airport operations.

### 12.3 Mitigation Measures

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to noise are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to noise nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impacts on noise. Therefore, no mitigation is required or proposed.

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	Potentially Significant Impact	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING.</b> Would the project:			
a) Induce substantial growth in an area either	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?

- |   |                          |                          |                                     |
|---|--------------------------|--------------------------|-------------------------------------|
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?           | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

### **13.1 Significance Criteria**

The impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

The demand for temporary or permanent housing exceeds the existing supply.

The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

### **13.2 Environmental Setting and Impacts**

**13. a), b) and c)** Population and housing impacts at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Population and Housing (pages 2-41) and were determined to be not significant. There is no change in the population and housing impacts from the 2004 Final Negative Declaration due to the proposed project modifications. The installation of an SCR Unit will not significantly adversely affect the analysis of population and housing impacts in any way. The ULSD project requires modifications to the existing Wilmington Plant and will not involve an increase, decrease or relocation of population. Labor for construction of the ULSD project (an estimated 150 employees) is expected to come from the existing labor pool in Southern California. The installation of the SCR Unit is not expected to require any additional construction workers during the peak construction period and the operation of the SCR Unit is not expected to require any new permanent employees at the Wilmington Plant. Therefore, construction and operation of the SCR Unit is not expected to result in an incremental increase in impacts on population, housing, or population growth. The overall impact to population from the ULSD project including the SCR Unit will be not significant.

### **13.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to population and housing resources are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will

not result in any incremental impacts to population and housing nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on population and housing. Therefore, no mitigation is required or proposed.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XIV. PUBLIC SERVICES.</b> Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:			
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**14.1 Significance Criteria**

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

**14.2 Environmental Setting and Impacts**

**14. a), b), c), d), and e)** Public service impacts associated with the proposed ULSD project were discussed in the 2004 Final Negative Declaration, Chapter 2, Public Services (pages 2-42) and were determined to be not significant. There is no change in the impacts on public services from the 2004 Final Negative Declaration due to the proposed project modifications. The addition of an SCR Unit does not impact the analysis on public services impacts in any way. The Wilmington Plant currently uses and stores aqueous and anhydrous ammonia. The project modification, including the addition of one ammonia truck trip per year is not expected to increase the requirements for

additional or altered fire protection or police protection. The facility’s RMP already includes ammonia. No increase in the amount of aqueous ammonia stored on-site will occur, and there will be only a very small increase (two 150-pound cylinders) in the amount of anhydrous ammonia stored onsite. The increased storage of anhydrous ammonia is not a significant quantity and will not require substantive modifications to the RMP. Further, the use of anhydrous ammonia cylinders to provide a back up supply of ammonia is used at other SCR Units at the Refinery so no new impacts will be created. The RMP has been approved by the Fire Department and emergency response procedures are already in place. Further, no increase in the number of permanent workers to operate the SCR unit is expected at the Wilmington Plant, therefore, there will be no increase in the local population and thus no impacts are expected to schools, parks, or other public facilities. Therefore, addition of the SCR Unit will not result in any incremental environmental impacts to public services, and the overall impact to public services from the ULSD project including the SCR Unit will be not significant.

**14.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to public services are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to public services nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on public services. Therefore, no mitigation is required or proposed.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XV. RECREATION.</b>			
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**15.1 Significance Criteria**

The impacts to recreation will be considered significant if:

The project results in an increased demand for neighborhood or regional parks or other recreational facilities.

The project adversely effects existing recreational opportunities.

**15.2 Environmental Setting and Impacts**

**15. a) and b)** Recreation impacts associated with the proposed ULSD project were discussed in the 2004 Final Negative Declaration, Chapter 2, Recreation (pages 2-44) and were determined to be not significant. The analysis and conclusions of recreation impacts does not change due to the proposed project modifications to install an SCR Unit. There will be no increase in the number of peak construction workers in order to install the SCR Unit, and the existing labor pool in southern California is sufficient to fulfill the labor requirements for the construction of the ULSD project. In addition, the operation of the SCR Unit will not require additional workers. Therefore, the SCR Unit will not result in any incremental increase in population densities and thus no increase in the use of existing neighborhood and regional parks or other recreational facilities. No significant adverse impacts to recreational facilities are expected from the ULSD project including the installation of the SCR unit.

**15.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to recreation are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to recreation nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on recreation. Therefore, no mitigation is required or proposed.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XVI. SOLID AND HAZARDOUS WASTE.</b> Would the project:			
a) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Comply with federal, state, and local statutes and	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

regulations related to solid and hazardous waste?

### **16.1 Significance Criteria**

The proposed project impacts on solid and hazardous waste will be considered significant if the following occur:

The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

### **16.2 Environmental Setting and Impacts**

Solid and hazardous waste impacts at the Wilmington Plant were discussed in the 2004 Final Negative Declaration, Chapter 2, Solid and Hazardous Waste (pages 2-45) and were determined to be less than significant. Addition of the SCR Unit will not change the conclusions regarding impacts to solid and hazardous waste analyzed in the 2004 Final Negative Declaration. The installation of an SCR Unit will have minor impacts on the generation of solid and hazardous waste.

**16. a) and b)** Sufficient landfill capacity currently exists to handle the anticipated generation of construction waste from the ULSD project. The installation of the SCR Unit is not expected to generate any additional construction waste because the equipment is fabricated off-site and installed on an existing foundation. No additional excavation is required for the SCR Unit, so the potential to uncover contaminated soils will not change from the discussion in the 2004 Final Negative Declaration and the 2004 Addendum.

The operation of an SCR Unit will generate hazardous waste from spent catalyst used in the SCR Unit. The catalysts have a life expectancy ranging from about five to ten years, depending on the type of catalyst and reaction rate. Spent catalysts (about 13,000 pounds every five to ten years) from the SCR Unit are expected to be removed or recycled offsite for their heavy metal content. The spent catalyst in the SCR Unit will be in addition to the increase in spent catalyst from the Unit 90 Hydrotreater of approximately 400,000 pounds per year due to the increased size of the reactors in the Unit 90 Hydrotreater. The Hydrotreater catalysts have a life expectancy ranging from about two to three years, depending on the type of catalyst and reaction rate. Spent catalysts are expected to be removed and regenerated by a catalyst company, or recycled offsite to recover their heavy metal content. Therefore, the incremental increase in solid waste associated with the SCR Unit will not be significant, and the ULSD project as modified will remain less than significant. No significant adverse impacts to solid or hazardous waste disposal facilities are expected due to the operation of the ULSD project as modified. The facility is expected to continue to comply with federal, state, and local statutes and regulations related to solid and hazardous wastes.

### 16.3 Mitigation Measures

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to solid and hazardous wastes are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to solid and hazardous waste nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on solid and hazardous wastes. Therefore, no mitigation is required or proposed.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>XVII. TRANSPORTATION AND TRAFFIC.</b>			
Would the project:			
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access or access to nearby uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

turnouts, bicycle racks)?

### **17.1 Significance Criteria**

The impacts on transportation/traffic will be considered significant if any of the following criteria apply:

Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.

An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.

A major roadway is closed to all through traffic, and no alternate route is available.

There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.

The demand for parking facilities is substantially increased.

Water borne, rail car or air traffic is substantially altered.

Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.

### **17.2 Environmental Setting and Impacts**

**17. a) and b) Traffic and Circulation:** Transportation impacts for the proposed ULSD project were discussed in the 2004 Final Negative Declaration, Chapter 2, Transportation and Traffic (pages 2-47) and were determined to be not significant. Addition of the SCR Unit will not change any of the conclusions in the 2004 Final Negative Declaration related to transportation and traffic impacts. Installation of the SCR Unit will be accomplished with the same workforce as evaluated in the 2004 Final Negative Declaration, so there will be no increase in the peak work force. Accordingly, there will be no change in the expected traffic during the peak construction phase (an estimated 150 workers). As a result, the 2004 Final Negative Declaration determined that the traffic impacts associated with this work force would be less than significant. Operation of the proposed SCR Unit will not result in an increase in permanent workers, therefore, there will be no incremental traffic impacts during operations.

The inclusion of the aqueous ammonia delivery truck (one per year) and the truck to transport SCR catalyst to solid waste facility (one per every five to ten years) will not increase the daily "worst-case" estimate for truck deliveries evaluated in the 2004 Final Negative Declaration (three per day over a two-week period once every two to three years). Based on this analysis, the additional truck trips would not result in significant

traffic impacts. The incremental and overall impacts on traffic during the operational phase would be considered less than significant.

**17. c)** The ULSD project includes modifications to existing facilities. The project, as modified with the addition of the SCR Unit will not involve the delivery of materials via air, so no increase in air traffic is expected.

**17. d) and e)** The 2004 Final Negative Declaration concluded that the ULSD project is not expected to significantly increase traffic hazards or create incompatible uses at or adjacent to the site due to the following reasons: (1) emergency access at the Wilmington Plant will not be adversely affected by the proposed project; (2) ConocoPhillips will continue to maintain the existing emergency access gates to the Wilmington Plant; and (3) the exits and entrances to the Wilmington Plant will remain unchanged. The addition of the SCR Unit will not change this analysis because emergency access will not change and the location of all existing entrances and access gates will remain unchanged. Also, the hazards/risk of upset impacts from the SCR Unit are less than significant and will not create a need for additional emergency accesses.

**17. f)** As described in the 2004 Final Negative Declaration parking for the construction workers will be provided within the confines of the existing site. Since there will be no change in the peak construction work force as a result of adding the SCR Unit, there will be no change to construction worker parking. In addition, there will be no increase in permanent workers as a result of adding the SCR Unit. Therefore, the SCR Unit will not result in any permanent impacts on parking.

**17. g)** The ULSD project will be constructed within the confines of an existing Refinery and is not expected to conflict with adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, bicycle racks). Likewise, the SCR Unit will be installed within the existing Wilmington Plant at a location identified and evaluated in the 2004 Final Negative Declaration. Thus, the SCR Unit will not result in any incremental impacts relating to transportation policies, plans or programs.

### **17.3 Mitigation Measures**

The 2004 Final Negative Declaration and 2004 Addendum concluded that no significant adverse impacts to traffic and transportation are expected to occur as a result of the ULSD project. Modification of the project through the inclusion of an SCR Unit will not result in any incremental impacts to traffic and transportation nor will the project analyzed in the 2004 Final Negative Declaration, the 2004 Addendum and the currently proposed project modification cause an overall significant adverse impact on traffic and transportation. Therefore, no mitigation is required or proposed.

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	<b>Potentially Significant Impact</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>18. MANDATORY FINDINGS OF SIGNIFICANCE.</b>			
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**18. a)** The 2004 Final Negative Declaration concluded that the ULSD project does not have the potential to significantly adversely affect the environment, reduce or eliminate any plant or animal species or destroy prehistoric records of the past. The ULSD project is located at a site that is part of an existing industrial facility, which has been previously disturbed, graded and developed, and this project will not extend into environmentally sensitive areas but will remain within the confines of an existing, operating Refinery. For additional information, see Section 4.0 – Biological Resources (page 2-15) and Section 5.0 – Cultural Resources (page 2-17). The addition of the SCR Unit does not change this analysis. The SCR Unit will be installed within the existing Wilmington Plant at a location identified and evaluated in the 2004 Final Negative Declaration. Thus, the SCR Unit will not result in any incremental impacts relating to this topic, and the overall impact from the ULSD project including the SCR Unit will be not significant.

**18. b) and c)** The 2004 Final Negative Declaration determined there is the potential for cumulative adverse environmental impacts to air quality. The ULSD project will replace an old cooling tower with a new cooling tower, install two new reactors and a caustic

scrubber, replace an existing heater with a new heater and install an SCR Unit that complies with the current BACT requirements. The sole purpose of the proposed project modification is to reduce emissions from equipment related to production of ULSD. As shown in Table 2-3 herein, the operational emissions associated with the ULSD at the ConocoPhillips Wilmington Plant will be below the SCAQMD's thresholds. The overall ULSD project, which includes the installation of the low NOx burners plus the SCR Unit, is expected to result in an emission decrease in the range of six to 21 pounds per day of NOx. Therefore, no significant adverse air quality impacts are expected, either individually or cumulatively.

The ULSD project will comply with the AQMP. The AQMP identifies control measures necessary to lessen the cumulative air quality problem in the South Coast Air Basin and lead the Basin into compliance with the state and federal ambient air quality standards. Low sulfur diesel standards are specifically in a control measure in the 2003 AQMP (FUEL-2). The 2003 AQMP has been adopted by the SCAQMD and CARB. The ULSD project will allow ConocoPhillips to comply with the state and federal ULSD requirements. The diesel sulfur limit of 15 ppmw will help generate significant air quality benefits by enabling the effective performance of advanced diesel exhaust emissions control technologies that reduce emissions of ozone precursors (NOx and VOCs) and diesel particulate matter. CARB estimates that the NOx emissions reductions in California are expected to range from about 100 tons per year in 2005 to about 35 tons per year in 2020. CARB estimates that the particulate matter emissions reductions in California are expected to range from about 16 tons per year in 2005 to about seven tons per year in 2020. Reductions in emissions of diesel particulate matter mean reduced ambient levels of toxic air contaminants found in diesel exhaust and reduced public exposure to those contaminants (CARB, 2003).

The proposed project will allow ConocoPhillips to comply with SCAQMD Rule 431.2. SCAQMD Rule 431.2 directly reduces the emissions of pollutants from diesel combustion, including SOx and particulates. The SCAQMD estimates that amendments to Rule 431.2 will reduce SOx from diesel emissions by 2.7 to 10.1 tons per day, reduce particulates from diesel emissions by 1.1 tons per day, and reduce particulate matter equivalents produced by diesel emissions (assuming SOx becomes particulate ammonium sulfate) by 6.6 tons per day in the South Coast Air Basin. SCAQMD Rule 431.2 will indirectly reduce the emissions of pollutants from diesel engines by enabling the use of vehicle pollution control devices, such as particulate traps and NOx catalysts installed in a vehicle's exhaust system, that remove pollutants from tailpipe emissions. These control devices will result in substantial reductions of fine particulate matter and NOx emissions that result from combustion in all types of diesel fueled combustion sources. The analysis also shows that the emissions reductions expected due to implementation of SCAQMD Rule 431.2 will prevent approximately 696 cancer cases from occurring due to lifetime exposure (SCAQMD, 2000).

In evaluating whether the ULSD project is individually significant, the SCAQMD did not take any emission reduction credit for mobile source emission reductions resulting from the use of ULSD. However, in evaluating cumulative significance, the large decrease in

emissions can be compared to the expected very small increase in emissions from the ULSD project. Therefore, the ULSD project will provide an overall air quality and, thus, public health benefit, consistent with the AQMP. This benefit is increased with the addition of the SCR Unit, which will reduce the direct NO<sub>x</sub> emissions from equipment installed as part of the ULSD project.

A recently completed CEQA document for an independent SCR project at the ConocoPhillips Carson Plant shows that the project is also not expected to contribute to cumulative impacts at the Wilmington Plant because the SCRs are expected to result in a NO<sub>x</sub> emission reduction benefit, the distance between the two facilities is about three miles, and the peak construction impacts will occur at different times for each facility (in May and June 2005 for the Carson SCR project and late-2005 for the ULSD project). In addition, the Carson SCR project and ULSD project do not rely on each other in any way and one project can be constructed without the other. Therefore, the proposed SCR Unit for the ULSD project is not expected to result in any significant project-specific impacts that are considered to be cumulatively considerable pursuant to CEQA Guidelines §15065(a)(3).

CEQA Guidelines indicate that cumulative impacts of a project shall be discussed when the project's incremental effect is cumulatively considerable, as defined in CEQA Guidelines §15065(c). SCAQMD policy defines cumulatively considerable air quality impacts as impacts that exceed project-specific significance thresholds. Indeed, it is for this reason the SCAQMD's air quality significance thresholds apply to both project-specific and cumulative impacts. Since criteria and toxic air contaminant emissions from the proposed project do not exceed the applicable significance threshold, they are not considered to be cumulatively considerable. As a result, the proposed ULSD project is not expected to create significant adverse air quality impacts for criteria or toxic air contaminants (see Section 3 d herein).

## **19.0 CONCLUSION**

In 2004, ConocoPhillips proposed the construction of the ULSD project to produce diesel fuel in order to comply with local, state and federal requirements that limit the sulfur content of diesel fuel. A Final Negative Declaration was prepared in 2004 to analyze the impacts of the proposed ULSD project on the environment. The analysis in the 2004 Final Negative Declaration concluded that the ULSD project would not have any significant adverse environmental impacts.

After the certification of the Final Negative Declaration, ConocoPhillips proceeded with detailed engineering design for the ULSD project. In the course of the detailed engineering, the company updated the fugitive component (e.g., valves, flanges, pumps, etc.) counts for the ULSD project. To account for the changes resulting from the revised number of fugitive components, an Addendum to the Final Negative Declaration was prepared in September 2004. An Addendum was the appropriate document because there were no project changes or changes to the Final Negative Declaration that would trigger any conditions identified in CEQA Guidelines §15162.

Analysis of the currently proposed project modification, the construction of an SCR Unit, indicated that it would not result in significant incremental impacts, and would not cause the ULSD project as modified to create significant adverse impacts in any environmental areas analyzed in the 2004 Final Negative Declaration. In fact, the overall ULSD project would result in reduced NO<sub>x</sub> emissions in the range of six to 21 pounds per day, providing a beneficial air quality impact. Based on the environmental analysis prepared for the currently proposed project modification, the SCAQMD has quantitatively and qualitatively demonstrated that the proposed project modification will not generate any significant adverse impacts and meets the qualifications for the preparation of a Negative Declaration per the requirements of CEQA Guidelines §15070.

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## ACRONYMS

<b>ABBREVIATION</b>	<b>DESCRIPTION</b>
AB2588	Air Toxic "Hot Spots" Information and Assessment Act
AB2595	California Clean Air Act
ACE2588	Assessment of Chemical Exposure for AB2588
API	American Petroleum Institute
AEL	Acute Exposure Limit
AHI	Acute Hazard Index
AHM	Acutely Hazardous Material
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	Air Resources Board
ATIR	Air Toxics Inventory Report
BACT	Best Available Control Technology
Basin	South Coast Air Basin
BLEVE	Boiling Liquid Expanding Vapor Explosion
BTU	British Thermal Units
BTU/hr	British Thermal Units per hour
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHI	Chronic Hazard Index
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
CPUC	California Public Utilities Commission
CUP	Conditional Use Permit
CWMI	Chemical Waste Management Inc.
C4	Butane
dBA	A-weighted noise level measurement in decibels
DOT	Department of Transportation
DTSC	California Environmental Protection Agency, Department of Toxic Substances Control
DWR	California Department of Water Resources
EHS	Extremely Hazardous Substance
EIR	Environmental Impact Report
EIS	Environmental Impact Statement

ERPG	Emergency Response Planning Guideline
°F	Degrees Fahrenheit
FEMA	Federal Emergency Management Agency
FT-BGS	feet below ground surface
FHWA	Federal Highway Administration
FIP	Federal Implementation Plan
G	acceleration of gravity
GWh	Gigawatts per hour
H <sub>2</sub>	Hydrogen
HAZOP	Hazardous operation process analysis
HI	Hazard Index
HMBP	Hazardous Materials Business Plan
HRA	Health Risk Assessment
ID #	Identification number
ISCST3	Industrial Source Complex Model Short Term Version 3
°K	degrees Kelvin
LACFD	Los Angeles County Fire Department
LACSD	Los Angeles County Sanitation Districts
LADPW	Los Angeles Department of Public Works
LADWP	Los Angeles Department of Water and Power
LAER	lowest achievable emission reduction
LARWQCB	Los Angeles Regional Water Quality Control Board
LEL	Lower Explosive Limit
lbs	pounds
lbs/hr	pounds per hour
LFL	Lower Flammable Limit
Lmax	Maximum sound level
Lmin	Minimum sound level
LOS	Level of Service
LPG	liquefied petroleum gas
m/s	meters per second
MATES	Multiple Air Toxic Exposure Study
MEIR	maximum exposed individual resident
MEIW	maximum exposed individual worker
mw	megawatts
MMscf	Million Standard Cubic Feet
MICR	Maximum Incremental Cancer Risk
MWD	Metropolitan Water District of Southern California
N <sub>2</sub>	nitrogen
NH <sub>3</sub>	Ammonia
NAAQS	National Ambient Air Quality Standards
nanograms/m <sup>3</sup>	nanograms per cubic meter
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Agency
NIOSH	National Institute of Occupational Safety and Health
NOP	Notice of Preparation

NO <sub>x</sub>	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NSR	New Source Review
OSHA	Occupational Safety and Health Administration
pH	potential hydrogen ion concentration
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
ppbv	parts per billion by volume
ppm	parts per million
ppmv	parts per million by volume
ppmw	parts per million by weight
PRD	pressure relief devices
PRC	Public Resources Code
PSD	Prevention of Significant Deterioration
psi	pounds per square inch
psia	pounds per square inch absolute
psig	pounds per square inch (gauge)
PSM	Process Safety Management Program
RCRA	Resource Conservation and Recovery Act
RECLAIM	Regional Clean Air Incentives Market
REL	Reference exposure level
RFG	reformulated fuels gasoline
RMP	Risk Management Program
RMPP	Risk Management and Prevention Program
RVP	Reid Vapor Pressure
RWQCB	Regional Water Quality Control Board, Los Angeles Region
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison Company
SCH	State Clearinghouse
SCR	Selective Catalytic Reduction
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxide
SPCC	Spill Prevention, Control and Countermeasure
SRU	Sulfur Recovery Unit
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
T-BACT	Toxics Best Available Control Technology
TACs	toxic air contaminants
TPH	total petroleum hydrocarbons
ULSD	Ultra low sulfur diesel
USDOT	United States Department of Transportation
U.S. EPA	United States Environmental Protection Agency
USC	United States Code
USDA	United States Department of Agriculture

USGS	United States Geological Society
ug/l	micrograms per liter
ug/m <sup>3</sup>	micrograms per cubic meter
UVCE	Unconfined Vapor Cloud Explosion
V/C	volume to capacity ratio
VOC	volatile organic compounds

## **GLOSSARY**

<b>TERM</b>	<b>DEFINITION</b>
Ambient Noise	The background sound of an environment in relation to which all additional sounds are heard
Anhydrous	Free from water.
Aqueous	Formed from water, having a water base.
Aromatics	Hydrocarbons which contain one or more benzene rings.
Barrel	42 gallons.
Blending	One of the final operations in refining, in which two or more different components are mixed together to obtain the desired range of properties in the finished product.
Catalyst	A substance that promotes a chemical reaction to take place but which is not itself chemically changed.
Cooling Tower	A cooling tower is a heat rejection device, which extracts waste heat to the atmosphere through the cooling of a water stream to a lower temperature. Common applications for cooling towers are providing cooled water for manufacturing and electric power generation.
Condensate	Steam that has been condensed back into water by either raising its pressure or lowering its temperature
Cogeneration	A cogeneration unit is a unit that produces electricity.
Cracking	The process of breaking down higher molecular weight hydrocarbons to components with smaller molecular weights by the application of heat; cracking in the presence of a suitable catalyst produces an improvement in product yield and quality over simple thermal cracking.
Crude Oil	Crude oil is "unprocessed" oil, which has been extracted from the subsurface. It is also known as petroleum and varies in color, from clear to tar-black, and in viscosity, from water to almost solid.

dBA	The decibel (dDB) is one tenth of a <i>bel</i> where one bel represents a difference in noise level between two intensities $I_1$ , $I_0$ where one is ten times greater than the other. (A) indicates the measurement is weighted to the human ear.
Distillation	The process of heating a liquid to its boiling point and condensing and collecting the vapor.
Feedstock	Material used as a stream in the refining process.
Flares	Emergency equipment used to incinerate refinery gases during upset, startup, or shutdown conditions
Flue Gas	Gases produced by burning fuels in a furnace, heater or boiler.
Heat exchanger	Process equipment used to transfer heat from one medium to another.
Heater	Process equipment used to raise the temperature of refinery streams processing.
Hydrocarbon	Organic compound containing hydrogen and carbon, commonly occurring in petroleum, natural gas, and coal.
Hydrotreater	A machine that treats hydrocarbons.
Hydrotreating	A process to catalytically stabilize petroleum products of feedstocks by reacting them with hydrogen.
Isomerization	The rearrangement of straight-chain hydrocarbon molecules to form branch chain products; normal butane may be isomerized to provide a portion of the isobutane feed needed for the alkylation process.
L <sub>50</sub>	Sound level exceeded 50 percent of the time (average or mean level)
Liquefied Petroleum Gas (LPG)	Liquefied light end gases often used for home heating and cooking; this gas is usually 95 percent propane, the remainder being split between ethane and butane.
Naphtha naphthas	A crude distillation unit cut in the range of C <sub>7</sub> -420°;

are subdivided – according to the actual crude distillation cuts - into light, intermediate, heavy, and very heavy virgin naphthas; a typical crude distillation operation would be:

C <sub>7</sub> -160°	-	light naphtha
160-280°	-	intermediate naphtha
280-330°	-	heavy naphtha
330-420°	-	very heavy naphtha

Natural Gas	A mixture of hydrocarbon gases that occurs with petroleum deposits, principally methane together with varying quantities of ethane, propane, butane, and other gases.
Octane	Measurement of the burning quality of the gasoline; reflects the suitability of gasoline to perform in internal combustion engines smoothly without letting the engine knock or ping.
Olefins	Hydrocarbons that contain at least two carbons joined by double bonds; olefins do not naturally occur in crude oils but are formed during the processing.
Paleontological	Prehistoric life.
Peak Hour	This typically refers to the hour during the morning (typically 7 AM to 9 AM) or the evening (typically 4 PM to 6 PM) in which the greatest number of vehicles trips are generated by a given land use or are traveling on a given roadway.
Pentane	Colorless, flammable isomeric hydrocarbon, derived from petroleum and used as a solvent.
Reactor	Vessels in which desired reactions take place.
Refinery fuel gas	Gas produced from refinery operations used primarily for fuel gas combustion in refinery heaters and boilers.
Reformate	One of the products from a reformer; a reformed naphtha; the naphtha is then upgraded in octane by means of catalytic or thermal reforming process.

Reformulated Gasoline	New gasoline required under the federal Clean Air Act and California Air Resources Board to reduce emissions.
Reid Vapor Pressure	The vapor pressure of a product determined in a volume of air four times greater than the liquid volume at 100°F; Reid vapor pressure (RVP) is an indication of the vapor-lock tendency of a motor gasoline, as well as explosion and evaporation hazards.
Seiches	A vibration of the surface of a lake or landlocked sea that varies in period from a few minutes to several hours and which may change in intensity.
Selective Catalyst Reduction	An air pollution control technology that uses a catalyst to remove nitrogen oxides from flue gas.
Stripper or Splitter	Refinery equipment used to separate two components in a feed stream; examples include sour water strippers and naphtha splitters.

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