South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • http://www.aqmd.gov

SUBJECT: **NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT**

PROJECT TITLE: **TESORO RELIABILITY IMPROVEMENT AND REGULATORY COMPLIANCE PROJECT**

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and will prepare a Draft Environmental Impact Report (EIR) for the project identified above. The purpose of this Notice of Preparation (NOP) is to solicit comments on the environmental analysis to be contained in the EIR.

In conjunction with the development of the proposed project, it is necessary to address the potential adverse effects of the proposed project on the environment. The SCAQMD is preparing the appropriate environmental analysis consistent with CEQA. The NOP serves two purposes: to solicit information on the scope of the environmental analysis for the proposed project and notify the public that the SCAQMD will prepare a Draft EIR to further assess potential adverse environmental impacts that may result from implementing the proposed project. The Draft EIR will discuss all applicable topics required by CEQA.

This NOP, and the attached Initial Study, are not SCAQMD applications or forms requiring a response from you. Their purpose is simply to provide information to you on the above project. If the proposed project has no bearing on you or your organization, no action on your part is necessary. The project's description, location, and potential environmental impacts are described in the NOP and the attached Initial Study.

The SCAQMD will hold a scoping meeting to discuss the proposed project and review the environmental issues to be discussed in the EIR on Thursday, February 28, 2008, at the Wilmington YMCA located at 1121 N. Avalon Boulevard, Wilmington, California at 6:30 p.m.

Comments focusing on your area of expertise, your agency's area of jurisdiction, or issues relative to the environmental analysis should be addressed to Ms. Barbara Radlein at the address shown above, sent by FAX to (909) 396-3324, or e-mailed to bradlein@aqmd.gov. Comments must be received no later than 5:00 p.m. on March 21, 2008. Please include the name and phone number of the contact person for your organization.

Project Applicant: Tesoro Los Angeles Refinery

Date: February 20, 2008 **Signature:** Steve Smith

Steve Smith, Ph.D.
Program Supervisor
Planning, Rules, and Area Sources

Reference: California Code of Regulations, Title 14, Sections 15082, 15103, and 15375

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765-4182

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

Project Title:
Tesoro Reliability Improvement and Regulatory Compliance Project

Project Location:
The Refinery is located at 2101 East Pacific Coast Highway, Wilmington, California 90744.

The Sulfur Recovery Plant is located at 23208 S. Alameda Street, Carson, California 90810.

Description of Nature, Purpose, and Beneficiaries of Project:
The Tesoro Reliability Improvement Project will occur at Tesoro's Refinery and at their separate Sulfur Recovery Plant. The purpose of the proposed project is to increase the reliability of specific existing processing equipment at both Tesoro facilities. The proposed changes to the Refinery include the following: 1) install a new fuel gas treatment unit; 2) replace an existing cogeneration system with a new cogeneration system; 3) replace multiple, existing steam boilers with new equipment; 4) modify the Delayed Coking Unit (DCU), the Hydrocracking Unit (HCU) and the Fluid Catalytic Cracking Unit (FCCU) to increase recovery of liquefied petroleum gas (LPG); 5) modify the existing coke handling, screening, and loading system; 6) modify the existing Hydrotreating Unit (HTU) No. 2 in order to comply with the revised California Air Resources Board's gasoline specifications (revised CARB Phase III); 7) upgrade the existing amine/sour water system to improve hydrocarbon removal efficiency; 8) connect certain existing atmospheric pressure relief devices to the existing flares to prevent direct atmospheric releases; 9) improve sulfur treatment for the sour gas from the spent acid storage tank and the LPG sulfur extraction unit; 10) modify the coke drum blowdown system; 11) modify heater number H-101 at the DCU; and, 12) install a new crude oil storage tank. The proposed project at the Sulfur Recovery Plant will modify an existing Claus Unit to improve sulfur recovery.

Lead Agency:	**Division:**
South Coast Air Quality Management District	Planning, Rule Development and Area Sources

Initial Study and all supporting documentation are available at:	**or by calling**	**The Initial Study is available by accessing the SCAQMD's website at:**
SCAQMD Headquarters 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2039	http://www.aqmd.gov/ceqa/nonaqmd.html

The Notice of Preparation is provided through the following:

☑ Los Angeles Times (February 21, 2008)
☑ SCAQMD Website
☑ SCAQMD Public Information Center
☑ Interested Parties
☑ SCAQMD Mailing List

NOP/IS Review Period:
February 21, 2008 through March 21, 2008

A CEQA scoping meeting will be held on February 28, 2008 at the Wilmington YMCA located at 1121 North Avalon Boulevard, Wilmington, California at 6:30 pm.

Send CEQA Comments to:	**Phone:**	**Email:**	**Fax:**
Ms. Barbara Radlein	(909) 396-2716	Bradlein@aqmd.gov	(909) 396-3324

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

INITIAL STUDY FOR:
TESORO RELIABILITY IMPROVEMENT AND REGULATORY COMPLIANCE PROJECT

SCH No. TBD

February, 2008

Executive Officer
Barry Wallerstein, D. Env.

Deputy Executive Officer,
Planning, Rule Development, 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: Barbara Radlein - Air Quality Specialist
Steve Smith, Ph.D. - Program Supervisor
Jeri Voge – Senior Deputy District Counsel

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CHAPTER 1

PROJECT DESCRIPTION

Introduction
Agency Authority
Project Location
Project Description
Project Construction Schedule

1.0 INTRODUCTION

The Tesoro Refining and Marketing Company (Tesoro) is proposing a project at its Los Angeles Refinery (Refinery) and Sulfur Recovery Plant (SRP) to improve the reliability of refinery operations and to comply with regulatory requirements. The Tesoro Reliability Improvement and Regulatory Compliance Project (proposed project) includes the following changes to the Los Angeles Refinery: 1) install a new fuel gas treatment unit; 2) replace an existing cogeneration system with a new cogeneration system; 3) replace multiple, existing steam boilers with new equipment; 4) modify the Delayed Coking Unit (DCU), the Hydrocracking Unit (HCU) and the Fluid Catalytic Cracking Unit (FCCU) to increase recovery of liquefied petroleum gas (LPG); 5) modify the existing coke handling, screening, and loading system; 6) modify the existing Hydrotreating Unit (HTU) No. 2 in order to comply with the revised California Air Resources Board's gasoline specifications (revised CARB Phase III); 7) upgrade the existing amine/sour water system to improve hydrocarbon removal efficiency; 8) connect certain existing atmospheric pressure relief devices (PRDs) to the existing flares to prevent direct atmospheric releases; 9) improve sulfur treatment for the sour gas from the spent acid storage tank and the LPG sulfur extraction unit; 10) modify the coke drum blowdown system; 11) modify heater number H-101 at the DCU; and, 12) install a new crude oil storage tank. The proposed project at the Sulfur Recovery Plant will modify an existing Claus Unit to improve sulfur recovery. The proposed project will not increase or change the crude throughput capacity of the Tesoro Refinery.

1.1 AGENCY AUTHORITY

The California Environmental Quality Act (CEQA), Public Resources Code Section 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 proposed modifications constitute a "project" as defined by CEQA. To fulfill the purpose and intent of CEQA, the South Coast Air Quality Management District (SCAQMD) is the "lead agency" for this project and has prepared a Notice of Preparation and Initial Study (NOP/IS) to address the potential environmental impacts associated with the proposed project at the Tesoro Refinery and SRP.

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). It was determined that the SCAQMD has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency (CEQA Guidelines §15051(b)). The proposed project requires discretionary approval from the SCAQMD for modifications to existing stationary source equipment and installation of new stationary source equipment.

1.2 PROJECT LOCATION

The proposed project will occur at Tesoro's Refinery and at their separate Sulfur Recovery Plant. Tesoro is the owner and operator of both facilities which operate at two locations: (1) the main refinery operations are located in Wilmington; and (2) the SRP is located in Carson.

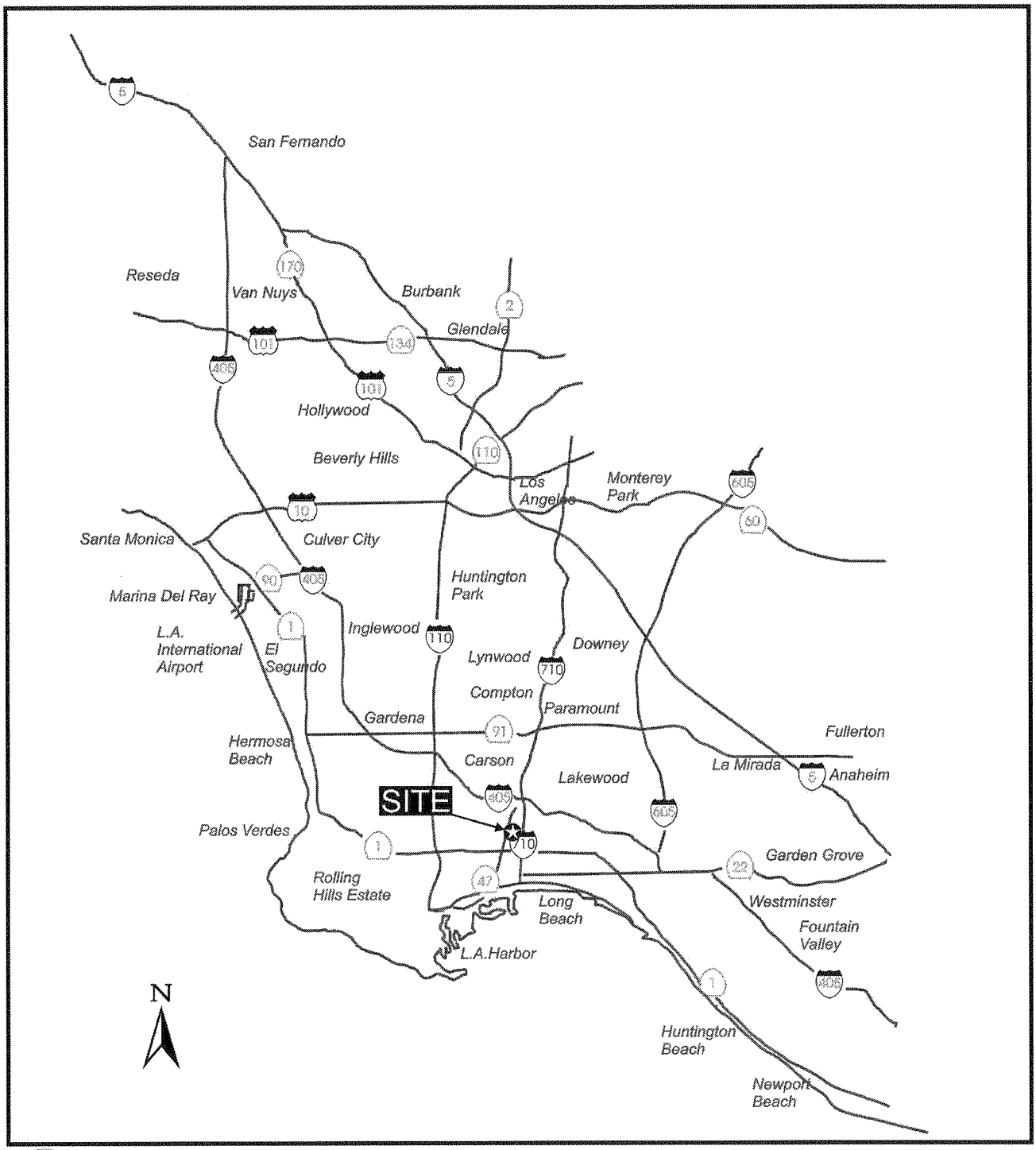
The Tesoro Refinery is located at 2101 East Pacific Coast Highway in the Wilmington district of the City of Los Angeles. Figures 1 and 2 show the regional and site locations of the Refinery, respectively. The Refinery occupies about 300 acres of land, with the larger portion located within the jurisdiction of the City of Los Angeles and the smaller portion located within the City of Carson. The Refinery is bounded to the north by Sepulveda Boulevard, to the west by Alameda Street, to the south by the Southern Pacific Railroad tracks, and to the east by the Dominguez Channel. The Refinery is bisected by Pacific Coast Highway, with the larger portion of the Refinery to the north of Pacific Coast Highway and the smaller portion to the south. The Refinery and all adjacent areas are zoned for heavy industrial use. The closest residential area is about one-half mile east of the Refinery in the City of Long Beach (see Figure 2).

The Refinery is zoned for heavy industrial uses (M3-1). The land uses in the vicinity of the Refinery includes oil production facilities, refineries, hydrogen plants, coke handling facilities, automobile wrecking/dismantling facilities, and other industrial facilities. The main operating portions of the Refinery are located within the Wilmington-Harbor City Planning Area (City of Los Angeles), which permits heavy industrial uses including petroleum refining on the Tesoro property (City of Los Angeles, 1999). A separate conditional use permit from the City of Los Angeles is not required for this proposed project. The Wilmington-Harbor City Plan places no additional restrictions on refineries, and specifically allows for construction without regard to height limitations. A portion of the Refinery is located in the City of Carson and includes the Refinery's tank farm and portions of the coke handling facilities.

The SRP is located at 23208 South Alameda Street in the City of Carson (see Figure 2), north of the Refinery. The SRP is zoned for heavy manufacturing uses (MH) by the City of Carson's Land Use element of its General Plan. Adjacent land uses to the SRP also are heavy industrial and include other refineries, a hydrogen plant, undeveloped lots, and container storage areas.

1.3 PROJECT DESCRIPTION

Tesoro is proposing a project at its Refinery and SRP to improve process safety and reliability and comply with regulatory requirements. Currently, Tesoro operates multiple HTUs, a DCU, a HCU, a FCCU, a coke handling, screening, and loading system, multiple cogeneration units, multiple steam boilers and other process equipment at the Refinery. Some of this equipment is scheduled for replacement due to age, while the balance is proposed for modifications to reduce emissions, improve reliability and comply with regulatory requirements. The following sections provide additional detail on the proposed project. Figure 3 provides the location of the proposed modified units



Environmental Audit, Inc.

REGIONAL MAP
TESORO LOS ANGELES REFINERY / SULFUR RECOVERY PLANT

Project No. 2550 Figure 1

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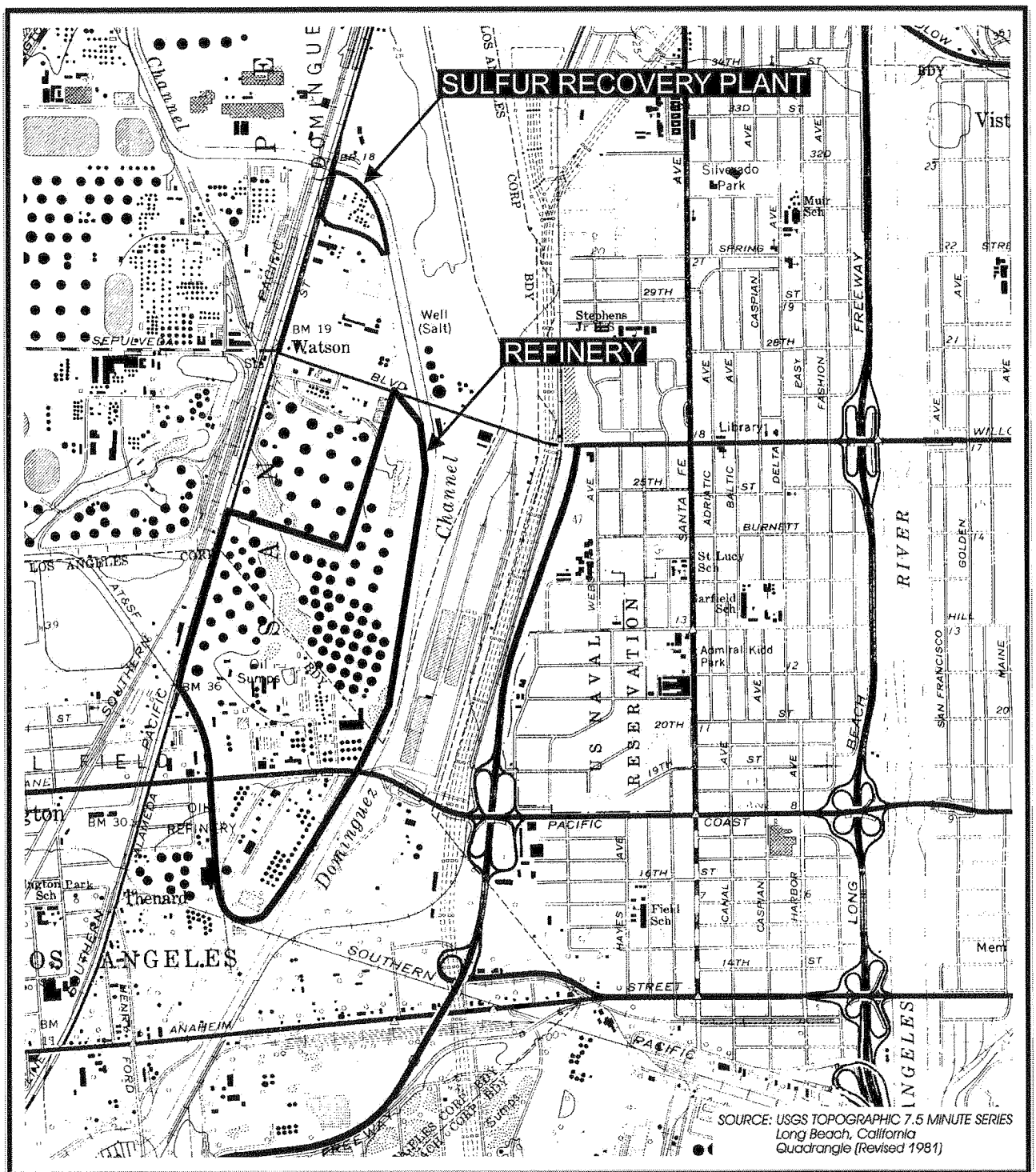

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SITE LOCATION MAP
TESORO LOS ANGELES REFINERY / SULFUR RECOVERY PLANT

Project No. 2550 Figure 2

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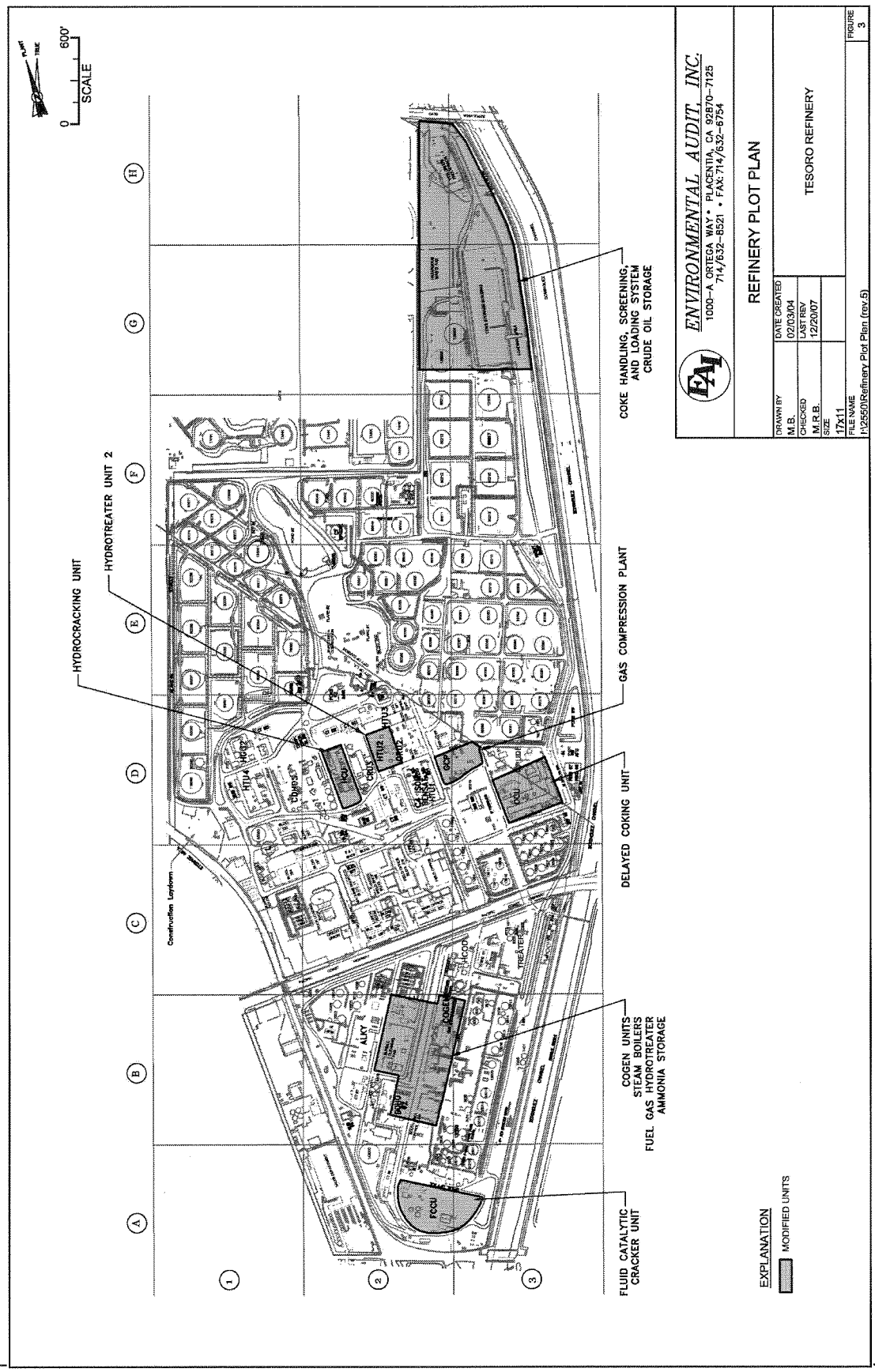
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600'
SCALE
HYDROCRACKING UNIT
HYDROTREATER UNIT 2
COKE HANDLING, SCREENING, AND LOADING SYSTEM CRUDE OIL STORAGE
GAS COMPRESSION PLANT
DELAYED COKING UNIT
COGEN UNITS
STEAM BOILERS
FUEL GAS HYDROTREATER
AMMONIA STORAGE
FLUID CATALYTIC CRACKER UNIT
EXPLANATION
MODIFIED UNITS
ENVIRONMENTAL AUDIT, INC.
1000-A ORTEGA WAY • PLACENTIA, CA 92870-7125
714/632-8521 • FAX: 714/632-8754
REFINERY PLOT PLAN
TESORO REFINERY
DRAWN BY M.B.
DATE CREATED 02/03/04
CHECKED M.R.B.
LAST REV 12/20/07
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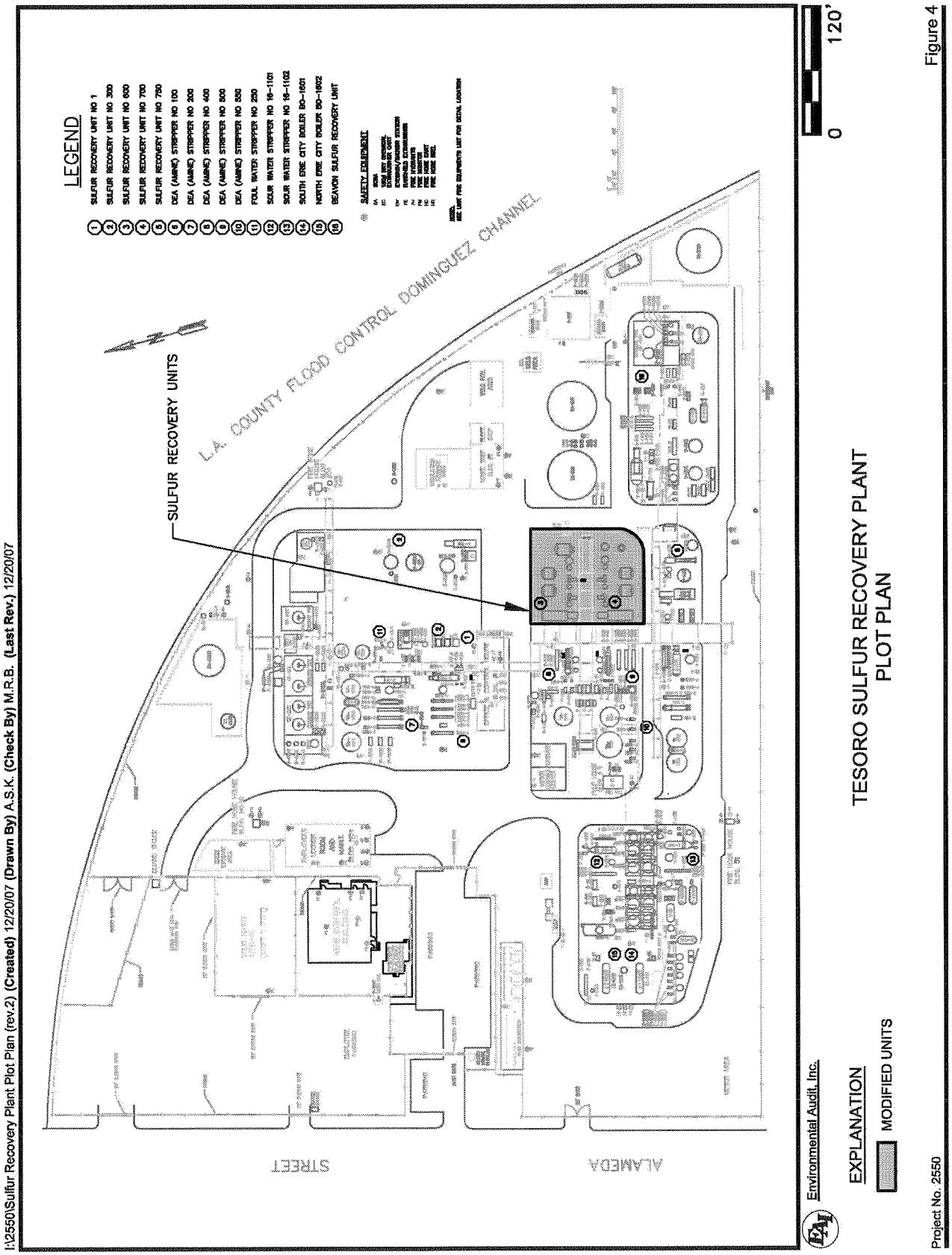
FIGURE 3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LEGEND
SULFUR RECOVERY UNIT NO 1
SULFUR RECOVERY UNIT NO 300
SULFUR RECOVERY UNIT NO 600
SULFUR RECOVERY UNIT NO 700
SULFUR RECOVERY UNIT NO 750
DEA (AMINE) STRIPPER NO 100
DEA (AMINE) STRIPPER NO 200
DEA (AMINE) STRIPPER NO 400
DEA (AMINE) STRIPPER NO 500
DEA (AMINE) STRIPPER NO 550
FOUL WATER STRIPPER NO 250
SOUR WATER STRIPPER NO 16-1101
SOUR WATER STRIPPER NO 16-1102
SOUTH END CITY BOILER BO-1601
NORTH END CITY BOILER BO-1602
BEAVON SULFUR RECOVERY UNIT
SULFUR RECOVERY UNITS
L.A. COUNTY FLOOD CONTROL DOMINGUEZ CHANNEL
ALAMEDA
STREET
0
120'
TESORO SULFUR RECOVERY PLANT
PLOT PLAN
Environmental Audit, Inc.
EXPLANATION
MODIFIED UNITS
Project No. 2550
Figure 4

within the Refinery. Figure 4 provides the location of the proposed modified units at the SRP. Construction of the proposed project is scheduled to begin in July 2008 and to be complete by September 2010.

1.3.1 RECLAIM NOx and SOx Reduction

Emissions of nitrogen oxides (NOx) and sulfur oxides (SOx) at the Refinery and SRP are subject to SCAQMD's Regulation XX - Regional Clean Air Incentive Market (RECLAIM). Unlike the command-and-control regulations for which each NOx and/SOx emitting equipment is subject to a concentration limit or an emission rate, RECLAIM limits total facility NOx and SOx emissions and offers the flexibility of trading emissions with other facilities and/or reducing NOx or SOx emissions within the facility. Currently, the actual annual NOx emissions at the Refinery exceed the annual allocation. In order to comply with RECLAIM, Tesoro has been purchasing NOx RECLAIM Trading Credits (RTCs) from the market to comply with the facility's annual allocation requirement. During fiscal year 2006-2007, the total combined NOx emissions from the existing two cogeneration units and four steam boilers accounted for approximately 48 percent of the total NOx emissions from major combustion equipment at the Refinery. In lieu of continuing to purchase credits, Tesoro plans to reduce NOx emissions at the Refinery by replacing: (1) two existing 30 megawatt (MW) cogeneration units with one new 65 megawatt cogeneration system; and (2) four existing steam boilers with two new steam boilers. The new cogeneration system and boilers will be equipped with Best Available Control Technology (BACT) and are expected to substantially reduce NOx emissions and minimize the need for Tesoro to purchase NOx RTCs.

1.3.1.1 Cogeneration Units

Tesoro currently operates a cogeneration system that supplies a portion of electricity and steam used by the process equipment at the Refinery. Tesoro supplements onsite generation by purchasing electricity from the Los Angeles Department of Water and Power (LADWP) to meet remaining demands for the refining operation. The existing cogeneration system is a major source of NOx emissions at the Refinery. To reduce NOx emissions and remain within Tesoro's annual RECLAIM NOx allocations, Tesoro is proposing to replace the two existing 30 MW cogeneration units and their associated air pollution control equipment with one new cogeneration system, consisting of a gas turbine, a steam turbine, a heat recovery steam generator, and the associated air pollution control equipment (including NOx control technology such as a selective catalytic reduction (SCR) unit). A new emergency internal combustion engine will also be installed to supply power to the instruments and auxiliary equipment in the gas turbine which will allow the boilers to continue to operate and provide sufficient steam as necessary, and maintain a safe shutdown and start up of the Refinery during a power outage.

The proposed new cogeneration system would increase the maximum electrical generating capacity at the Refinery by about five megawatts while reducing NOx emissions. The increased electrical generation capacity will allow the Refinery to rely mainly on onsite power generation under normal operating conditions as part of an effort to reduce the risk of process upset due to interruption of power supplied by any outside provider.

1.3.1.2 Steam Boilers

Currently the existing cogeneration systems and four steam boilers generate steam for multiple processes at the Refinery. The total combined permitted heat input for the four boilers at the Refinery are 734.16 million British Thermal Units per hour (mmBtu/hr). Similar to the existing gas turbines, these existing steam boilers are major sources of NOx emissions at the Refinery. As part of the strategy to reduce existing NOx emissions to comply with the annual reductions to Tesoro's RECLAIM NOx Annual Allocation, Tesoro will replace the four existing boilers with two new boilers, each with total heat input rating of no more than 400 mmBtu/hr. The new boilers will burn refinery fuel gas or natural gas and will be equipped with SCR units to reduce NOx emissions.

1.3.1.3 Fuel Gas Treatment Unit

A new fuel gas treatment unit will be installed to remove sulfur in fuel gas to allow Tesoro to meet future regulatory requirements (BACT requirements for sulfur in fuel gas). The fuel gas treatment unit will be a custom design using hydrotreating technology to treat high sulfur fuel gas streams at the Refinery. Under this process, the fuel gas is compressed, heated and catalytically reacted with hydrogen in a bed of hydrotreater catalyst to convert sulfur compounds into hydrogen sulfide. The carbonyl sulfide (COS) formed during the reaction will be hydrolyzed to hydrogen sulfide in an additional downstream reactor. The gas will be cooled and the hydrogen sulfide removed using amine scrubbing.

1.3.1.4 Ammonia Storage

Ammonia is an integral part of the SCR process for NOx control. New SCRs are included in the proposed project as NOx emission control systems for all new and modified combustion devices. The proposed project includes a total of three new SCR Units, one for the new cogeneration system, and one for each of the two new boilers. The proposed project includes a new 12,000 gallon storage tank to provide an adequate supply of aqueous ammonia for the proposed new SCR units.

1.3.2 Liquefied Petroleum Gas (LPG) Recovery

Tesoro is planning to recover liquid products from light petroleum gases at the DCU, the HCU and the FCCU by: 1) replacing a distillation column, three overhead accumulators, a reflux drum, and heat exchangers; 2) adding a new Fractionator overhead wash water system; and, 3) adding a knock-out drum and associated piping and pumps as needed.

Additionally, a depropanizer column in the DCU will be replaced with an identical column.

1.3.2.1 Delayed Coking Unit (DCU) Modification

The DCU converts atmospheric residuum and heavy crude fraction into gases, light liquids, naphtha, distillate oils and petroleum coke. The feed to the DCU is heated to a high temperature causing the light materials to boil off leaving behind solid materials called petroleum coke. Tesoro is proposing to remove water and recover more liquid products (i.e., LPG) from process gas in the DCU by: 1) replacing the existing deethanizer column with a taller column; 2) replacing three existing fractionator overhead accumulators with larger vessels, 3) adding a new fractionator overhead wash water system; and 4) adding new pumps and piping as necessary. In addition, Tesoro plans to replace the depropanizer column with an identical column.

1.3.2.2 Hydrocracking Unit (HCU) Modification

The HCU converts gas oil in the presence of hydrogen into gases, light liquids, light naphtha, heavy naphtha and diesel streams. The HCU consists of a reaction section and a fractionation section. The proposed modifications will be made to the fractionation section and will include: 1) adding an amine scrubber feed knockout drum; and 2) adding booster pumps and piping. The purpose of the proposed modifications is to increase the amount of liquid recovered, reduce process gas by improving liquid/vapor separation, and reduce the potential for entrained liquids moving into the amine system.

1.3.2.3 Fluid Catalytic Cracking Unit (FCCU) Modification

The FCCU converts heavy oil into lighter hydrocarbon compounds. The FCCU produces a large quantity of gasoline blending components and feedstocks for the alkylation process. As part of an effort to recover more liquid fuel and reduce process gas generation, two heat exchangers in the FCCU Recovery section will be replaced to allow better heat transfer and better recovery of liquid fuel from process gas.

1.3.3 Coke Handling, Screening and Loading System

Petroleum coke generated at the DCU is transferred via conveyor belts to the coke storage and loading area for distribution to offsite facilities by either trucks or rail cars. The existing coke barn is scheduled for replacement. The existing coke storage facility will be replaced with a new coke storage facility. In addition to the new coke storage facility, Tesoro is proposing to build new coke loading facilities and make modifications to the associated coke transfer equipment as necessary.

1.3.4 Compliance with Revised CARB Phase III - Hydrotreating Unit (HTU) Modification

The proposed modifications to the HTU-2 are designed to increase throughput to desulfurize more naphtha in order to meet sulfur specifications for blending into revised CARB Phase III compliant gasoline products. The proposed HTU maximum capacity may increase from 23,000 Barrels per Stream Day (BPSD) to 27,000 BPSD. The proposed project may be completed solely by modifying existing heat exchangers or adding new heat exchangers.

1.3.5 Amine/Sour Water Reliability Upgrades

The proposed upgrades include the installation of a new larger amine flash drum to allow for the proper residence time of the amine solution to enhance removal of hydrocarbons and prevent the hydrocarbons from being inadvertently routed to the sulfur plants. Excess hydrocarbons in the sulfur plants can increase the operating temperatures, causing the plant to shutdown and release exhaust gas with high sulfur concentrations to the atmosphere, potentially creating odors and nuisance situations. The existing flash drum will be modified for use primarily as a sour water flash drum and as a back up to the new amine flash drum. The existing vapor recovery heat exchanger and knock out drum will also be replaced with a larger system to increase reliability of the amine system.

1.3.6 New Sour Gas Treatment Units for the Sour Gas from the Spent Acid Storage Tank and the LPG Sulfur Extraction Unit

New sour gas treatment units will be installed to reduce sulfur content in the sour gas from the spent acid storage tank and the LPG Sulfur Extraction Unit at the Alkylation Unit. This proposed modification will reduce the sulfur content from a vent gas stream and help the Refinery comply with the United States Environmental Protection Agency's (USEPA) Maximum Achievable Control Technology (MACT) Standards for Petroleum Refineries (40 Code of Federal Regulations Part 63, Subpart CC).

1.3.7 Connecting Atmospheric Pressure Relief Device to Flare

Tesoro has a company policy to minimize the potential for atmospheric releases from Pressure Relief Valves (PRVs) associated with refinery equipment and will connect PRVs to the flare gas recovery system whenever feasible. Therefore, as part of the proposed project, Tesoro is proposing to connect all of the PRVs in the FCCU to the flare gas recovery system, except for the PRVs on the main fractionator. This modification will also assist Tesoro in complying with SCAQMD Rule 1173 - Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants.

1.3.8 Delayed Coker Unit (DCU) Modifications

1.3.8.1 Coke Drum Blowdown System Modifications

The coke drum blowdown system processes steam and hydrocarbons from coke drum decoking (i.e., removing the built-up coke) and warm-up. This system recovers water, oil, and any non-condensable gas. The proposed modifications to this system include: 1) replacing the blowdown contactor and blowdown accumulator with larger vessels; and 2) adding a new heat exchanger and condensers. These proposed modifications will allow better oil and water separation while reducing the amount of heavy hydrocarbons being carried over to the slop oil storage tank.

1.3.8.2 DCU Heater H-101 Modification

Heater H-101 is proposed to be modified to improve heat transfer efficiency by enlarging the fire box to increase the heat transfer area. Additionally, new low NOx burners will be installed to reduce NOx emissions.

1.3.9 Crude Oil Storage Tank

The proposed project includes the construction of a new 500,000 barrel crude oil storage tank in order to provide additional crude oil storage capacity and to provide operational flexibility.

1.3.10 Sulfur Recovery Plant (SRP) Claus Unit 600/700 Modification

One objective of the proposed project is to increase sulfur removal capacity of the SRP Claus Units 600 and 700 by adding oxygen to the inlet air. Liquid oxygen will be purchased from a local production facility and delivered by truck to the SRP where it will be stored in a new pressurized oxygen tank. The proposed project also includes the replacement of the reaction furnace burners, modification of the existing Safety Instrumented System, and upgrades to the Waste Heat Boilers.

1.4 PROJECT CONSTRUCTION SCHEDULE

Construction activities for the proposed Tesoro Project are expected to begin in the second quarter of 2008 and are expected to be completed by the end of 2010. As shown in Figure 5, the construction schedule for each component of the proposed project varies. The construction activities for most of the components are expected to overlap from about April 2009 to October 2009. Construction work shifts are expected to last about ten hours per day during most portions of the construction schedule. During normal construction periods, one work shift per day is expected. During Refinery turnaround periods (when the refinery is shutdown), two work shifts are expected.

FIGURE 5

Tesoro Reliability Improvement and Regulatory Compliance Project

Construction Schedule

Phase	2008										2009												2010											
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cogen/Boilers Replacement																																		
Fuel Gas Treatment																																		
Ammonia Storage																																		
LPG Recovery																																		
Coke Handling System																																		
Revised CARB III – HTU No. 2																																		
Amine/Sour Water Upgrades																																		
Atmospheric PRD Flare Control																																		
Coke Drum Blowdown System																																		
SRP Claus Unit Mods																																		
DCU Heater H-101 Modifications																																		
Crude Oil Storage Tank																																		

CHAPTER 2

ENVIRONMENTAL CHECKLIST FORM

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Tesoro Reliability Improvement and Regulatory Compliance Project
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive, Diamond Bar, CA 91765
Lead Agency Contact Person and Phone Number:	Barbara Radlein (909) 396-2716
Project Sponsor's Name:	Tesoro Refining and Marketing Company
Project Sponsor's Address:	The Refinery is located at 2101 East Pacific Coast Highway, Wilmington, CA 90744. The Sulfur Recovery Plant is located at 23208 South Alameda Street, Carson, CA 90810.
Project Sponsor's Contact Person and Phone Number:	Pang Mueller (310) 522-4976
General Plan Designation:	Heavy Industrial
Zoning:	M3-1 and MH
Description of Project:	The Tesoro Reliability Improvement Project will occur at Tesoro's Refinery and at their separate Sulfur Recovery Plant. The purpose of the proposed project is to increase the reliability of specific existing processing equipment at both Tesoro facilities. The proposed changes to the Refinery include the following: 1) install a new fuel gas treatment unit; 2) replace an existing cogeneration system with a new cogeneration system; 3) replace multiple, existing steam boilers with new equipment; 4) modify the DCU, the HCU and the FCCU to increase recovery of LPG; 5) modify the existing coke handling, screening, and loading system; 6) modify the existing HTU No. 2 in order to comply with the revised California Air Resources Board's gasoline specifications (revised CARB Phase III); 7) upgrade the existing amine/sour water system to improve hydrocarbon removal efficiency; 8) connect certain existing atmospheric PRDs to the existing flares to prevent direct atmospheric releases; 9) improve sulfur treatment for the sour gas from the spent acid storage tank and the LPG sulfur extraction unit; 10) modify the coke drum blowdown system; 11) modify heater number H-101 at the DCU; and, 12) install a new crude oil storage tank. The proposed project at the Sulfur

	Recovery Plant will modify an existing Claus Unit to improve sulfur recovery.
Surrounding Land Uses and Setting:	Industrial and commercial uses including petroleum refining, hydrogen production facilities, storage tank facilities, distribution terminals, and scrap yards.
Other Public Agencies Whose Approval is Required:	City of Los Angeles City of Carson

POTENTIALLY SIGNIFICANT IMPACT AREAS

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Agriculture Resources	☑ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☑ Hazards & Hazardous Materials	☐ Hydrology/ Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Solid/Hazardous Waste	☑ Transportation/ Traffic	☑ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ I find the proposed project COULD NOT have a significant effect on the environment, and that a 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: February 20, 2008 Signature: Steve Smith

Steve Smith, Ph.D.
Program Supervisor

ENVIRONMENTAL CHECKLIST AND DISCUSSION

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

Checklist Response Explanation

1. a), b) and c) Construction activities at the Tesoro Refinery/SRP are not expected to adversely impact views and aesthetics since most of the construction activities, which include the operation of heavy equipment, are expected to occur within the existing facility boundaries and are not expected to be visible to areas outside the facility. At the Tesoro Refinery/SRP, the construction activities associated with the proposed project will occur within the operating portion of the Refinery/SRP. Construction activities may be visible to the adjacent industrial areas, e.g., truck terminal, but are consistent with the industrial uses, so no significant adverse aesthetic impacts are expected.

The potential for aesthetic impacts relating to the operational activities of the proposed project at the Tesoro Refinery/SRP are expected to be less than significant. Modifications and new equipment associated with the DCU, HCU, FCCU, HTU-2, coke storage facility, cogeneration units, steam boilers, storage tanks sulfur recovery plant, amine/sour water treatment and the fuel gas treatment unit, will be located at, or immediately adjacent to, where the same or similar equipment currently exists. Because the proposed project consists of modified or new equipment that is of the same or similar size and height, and is located in the same or similar location, aesthetic impacts from the Tesoro Reliability Improvement and Regulatory Compliance Project are not expected to have any significant adverse impacts on aesthetics.

All of the modifications and new equipment installations at the Tesoro Refinery/SRP are expected to be about the same size profile as existing equipment within the Refinery/SRP.

Further, installation of new or replacement of existing equipment at the facility, either inside or outside the existing structures, would not appreciably change the visual profile of the entire facility. In light of these considerations, no significant adverse impacts to aesthetics are expected from implementing the Tesoro Reliability Improvement and Regulatory Compliance Project.

1. d) New lighting may be provided as necessary in accordance with applicable safety standards on new structures constructed as a result of the proposed project. If installed, the lighting is expected to be consistent with existing lighting at the Refinery/SRP. However, the new lights are not expected to create new light and glare impacts to areas adjacent to the Refinery due to the industrial nature of the surrounding area and the fact that refineries are typically lighted at night for safety reasons. Specifically, for the proposed project, modifications of existing equipment will use the same lighting and installation of new equipment will require similar in lighting requirements with the equipment being replaced. Therefore, no significant adverse light and glare impacts are expected from implementing of the Tesoro Reliability Improvement and Regulatory Compliance Project.

Conclusion

No significant adverse aesthetics impacts are expected to occur as a result of construction and operational activities that Tesoro would undertake in order to complete the proposed project. Since no potentially significant adverse aesthetic impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
2.	**AGRICULTURE RESOURCES.** 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?	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☑
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?	☐	☐	☑

Checklist Response Explanation

2. a) b) & c) The potential for agricultural resources impacts associated with the activities associated with the proposed project is expected to be less than significant for the following reasons. All construction and operational activities that would occur as a result of the proposed project will occur within the confines of the existing Tesoro Refinery/SRP. The proposed project would be consistent with the heavy industrial zoning for the Tesoro Refinery/SRP and there are no agricultural resources or operations on or near the Tesoro Refinery/SRP. No agricultural resources including Williamson Act contracts are located within the project locations or would be impacted by the proposed project. Based upon the above considerations, significant agricultural resources impacts are not expected from the Tesoro Reliability Improvement and Regulatory Compliance Project.

Conclusion

No significant adverse impacts to agricultural resources are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse agricultural resources impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
3.	**AIR QUALITY.** Would the project:			
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑
b)	Violate any air quality standard or contribute to an existing or projected air quality violation?	☑	☐	☐
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)?	☑	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☑	☐	☐

		Potentially Significant Impact	Less Than Significant Impact	No Impact
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☑
f)	Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑

Checklist Response Explanation

3. a) & f) The 2007 Air Quality Management Plan (AQMP) demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are some of the inputs used to develop the AQMP. As indicated in the Population and Housing and Transportation/Traffic sections of this IS, the proposed project will not require additional Refinery employees or generate additional traffic during operation. Therefore, the proposed project will not cause increases in the growth projections in the Wilmington-Harbor City Community Plan (City of Los Angeles, 1999). Additionally, this project must comply with applicable SCAQMD requirements and promulgation of future AQMP control measures for new or modified sources. For example, new emission sources associated with the proposed project are required to comply with the SCAQMD's Regulation XIII – New Source Review and Rule 2005 - New Source Review for RECLAIM, requirements that include the use of BACT, air quality modeling, and emission reduction credit offsets for any emission increases greater than one pound per day. The proposed project must also comply with prohibitory rules, such as SCAQMD Rule 403 – Fugitive Dust.

By meeting these requirements, the proposed project will be consistent with the goals and objectives of the AQMP to improve air quality in the Basin. In addition, some modifications associated with the proposed project are expected to result in a reduction in criteria and toxic air contaminant emissions. Examples include replacement of the old cogeneration equipment with new gas turbines and steam generators, the installation of SCR equipment in the modification to the Cogen Unit to reduce NOx emissions, installation of a fuel gas treatment system, and connecting PRDs to vapor recovery. As a result, the proposed project is consistent with the 2007 AQMP and is not expected to diminish an existing air quality rule or a future compliance requirement.

3. b) Construction activities associated with the proposed project would result in emissions of carbon monoxide (CO), particulate matter less than 10 and 2.5 microns in diameter (PM10 and PM 2.5, respectively), volatile organic compounds (VOCs), NOx and SOx. Construction activities include standard site preparation activities including grading, pouring new foundations, and all other activities associated with the installation of the new equipment. Construction-related activities will generate emissions from worker vehicles, delivery trucks, and construction equipment. The air quality impacts associated with the construction phase of the proposed

project are potentially significant and will be evaluated in the EIR. Some of the proposed project modifications will increase air pollutants during operation including the HCU and DCU modifications, the HTU modifications, the SRP Claus Unit modifications and the Crude Oil Storage Tank addition. Some portions of the proposed project such as the gas turbine and steam generator replacement in the Cogeneration units, and the new boilers for the Boiler Replacement project, are being completed for air quality compliance purposes to reduce NOx emissions (e.g., SCAQMD Regulation XX – RECLAIM).

Although equipment associated with the proposed project must comply with SCAQMD rules and regulations, the proposed project has the potential to increase emissions of some criteria pollutants. The proposed project would add new emission sources to the Refinery including pumps, valves, and flanges and some of the proposed project modifications may result in an increase in the throughput of the unit (e.g., HTU, Amine/Sour Water upgrades, SRP Claus unit modification, and the Crude Oil Storage Tank). The SCAQMD requires the installation of BACT (e.g., SCR units) for new emission sources within the South Coast Air Basin, which should minimize project-related emissions. Nonetheless, the proposed project impacts on air quality during the operational phase are potentially significant and will be evaluated in the EIR.

The proposed project may also alter the transport of raw materials to the Refinery and the transport of products from the Refinery. The emission impacts related to changes in the amount or type of materials transported will be evaluated in the EIR.

3. c) The proposed project may result in an increase in emissions from the operation of the Refinery and has the potential to result in cumulative impacts. Since the project-specific air quality impacts may be significant, they may contribute to impacts that are cumulatively considerable. The cumulative air quality impacts for criteria pollutants, toxic air contaminants, and greenhouse gases are potentially significant and will be evaluated in the EIR.

3. d) New emission sources associated with the proposed project may emit toxic air contaminants, e.g., fugitive components from the fuel gas treatment unit, DCU, HCU, FCCU, and HTU-2. The impact of the emissions of toxic air contaminants and criteria pollutants on sensitive populations, including individuals at hospitals, nursing facilities, daycare centers, schools, and elderly intensive care facilities, as well as residential and off-site occupational areas, will be evaluated in the EIR.

3. e) The proposed project is not expected to create significant objectionable odors either during construction or operation of the new or modified equipment. Sulfur compounds (e.g., hydrogen sulfide) are the primary sources of odors from existing operations throughout the Refinery. The sulfur-bearing materials are handled and treated in the Sulfur Recovery Units where they are converted to elemental (solid) sulfur, which does not emit an appreciable odor. Though the Refinery will continue to process sulfur-bearing materials in the Sulfur Recovery Units, the proposed project is expected to increase the reliability associated with handling sulfur-bearing material. The proposed amine/sour water reliability upgrades include a new larger amine flash drum to allow for increased residence time to prevent contaminants from being inadvertently routed to the sulfur plants and creating upsets (i.e., releases of sulfur-bearing compounds), thus, reducing the potential for odor impacts from the existing Refinery. Additionally, the SRP Claus

Unit modifications will make the Refinery more efficient in sulfur removal by adding oxygen to the combustion air, thus reducing the potential for odor impacts. Further, the Tesoro Refinery/SRP maintains staff available 24 hours per day for odor investigation, which contributes to minimizing the frequency and magnitude of odor events. In addition, all new and modified components of the proposed project will be required to comply with BACT requirements as well as existing SCAQMD rules and regulations, including Rule 402 – Prohibition of Nuisances. Compliance with BACT and Rule 402 is expected to help minimize the frequency and magnitude of odor events at the Refinery/SRP. Therefore, no significant odor impacts are expected from constructing and implementing the proposed project.

The ammonia from the SCR stack is typically less than 10 parts per million (ppm) or less and substantially less than the Occupational Safety and Health Administration (OSHA) odor threshold for ammonia which is 20 ppm. 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 aqueous ammonia will be stored in an enclosed pressurized tank, which prevents fugitive ammonia emissions. Ammonia emissions from the SCR unit stack (also referred to as ammonia slip) are expected to be limited to less than 10 ppm as emitted from the stack. Since exhaust emissions are buoyant as a result of being heated, ammonia will disperse and ultimate ground level concentrations will be substantially lower than 10 ppm, which 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.

Conclusion

Project-specific and cumulative adverse air quality impacts associated with increased emissions of air contaminants (criteria air pollutants, greenhouse gases, and toxic air contaminants) during the construction and operation phases of the proposed project will be evaluated in the EIR. Impacts to sensitive receptors will also be analyzed in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
4.	**BIOLOGICAL RESOURCES.** 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, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
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?	☐	☐	☑
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?	☐	☐	☑
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?	☐	☐	☑
e)	Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☑
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.?	☐	☐	☑

Checklist Response Explanation

4. a) b) c) d) e) & f) All construction and operational activities that would occur as a result of the proposed project will occur within the confines of the existing Tesoro Refinery/SRP. Previous development and operation of the Tesoro Refinery/SRP has left the proposed sites with no natural habitats within their confines. Currently, no species of rare, threatened, or endangered plants or animals have been reported in the vicinity of the proposed project. Because the area within the Tesoro Refinery/SRP boundary is devoid of native habitat for safety reasons, impacts to other, non-listed species are not expected. The proposed project is not located on or near a wetland habitat, and will not create any barriers to the movements of animals. The proposed project would be consistent with the heavy industrial zoning and there are no biological resources or operations on or near the Tesoro Refinery/SRP. Further, no substantial increase in storm water runoff from the Tesoro Refinery or SRP is expected so no impacts on biological

resources within the Dominguez Channel are expected. Based upon the above considerations, significant adverse impacts on biological resources are not expected from the proposed project.

Conclusion

No significant adverse impacts to biological resources are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to implement the proposed project. Since no potentially significant adverse biological resources impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
5.	**CULTURAL RESOURCES.** Would the project:			
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☑
b)	Cause a substantial adverse change in the significance of a archaeological resource as defined in §15064.5?	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☑
d)	Disturb any human remains, including those interred outside a formal cemeteries?	☐	☐	☑

Checklist Response Explanation

5. a) CEQA Guidelines state that "generally, a resource shall be considered 'historically significant' if the resource meets the criteria for listing in the California Register of Historical Resources including the following:

A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B) Is associated with the lives of persons important in our past;

C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;

D) Has yielded or may be likely to yield information important in prehistory or history" (CEQA Guidelines §15064.5).

Generally, resources (buildings, structures, equipment) that are less than 50 years old are excluded from listing in the National Register of Historic Places[1] unless they can be shown to be exceptionally important). The buildings, structures, and equipment associated with the proposed project are not listed on registers of historic resources, and do not meet the eligibility criteria presented above (e.g., associated with historically important events or people, embodying distinctive characteristics of a type, period, or method of construction), and would not be likely to yield historically important information. The only components of the proposed project that are being removed are old Refinery structures including boilers, columns, fans, towers, coke storage facilities, etc. None of these structures meet the aforementioned historical significance criteria. Therefore, no significant impacts to historic cultural resources are expected as a result of implementing the proposed project.

5 b) c) & d) All construction and operational activities that would occur as a result of the proposed project will occur within the confines of the existing Tesoro Refinery/SRP. The proposed project would be consistent with the heavy industrial zoning.

Based on previous studies, the area near the Dominguez Channel was used by the Tongva/Gabrielino people. Cultural studies found a Tongva/Gabrielino village site and a large cemetery was exposed in 1998 near the BP Refinery, which is adjacent to the Tesoro SRP (east of the Dominguez Channel) (SCAQMD, 2001). Construction activities at the Tesoro Refinery uncovered human remains within the confines of the Refinery near the eastern property line, just north of Pacific Coast Highway and adjacent to the Dominguez Channel. The human remains were determined to be of Native American origin. Construction activities were suspended until all the remains were uncovered and a complete site investigation could be conducted. Additional site investigations did not uncover any additional human remains (Applied Earth Works, 1999).

The entire active portion of the Refinery and SRP have been previously graded and developed. Proposed project activities will occur in areas of the Refinery and SRP where the ground surface has already been disturbed, within or adjacent to existing refining units, and this past disturbance reduces the likelihood that previously unknown cultural resources will be encountered. Further, the Refinery/SRP sites do not contain known paleontological resources and thus the proposed project also is not expected to impact any sites of paleontological value.

While the likelihood of encountering cultural resources is low, there is still a potential that additional buried archaeological resources may exist. Any such impact would be eliminated by using standard construction practices and complying with state law, which require the following, in the event that unexpected sub-surface resources were encountered:

[1] The eligibility criteria of the California Register criteria are modeled on those of the eligibility criteria of the National Register of Historic Places.

- Conduct a cultural resources orientation for construction workers involved in excavation activities. This orientation will show the workers how to identify the kinds of cultural resources that might be encountered, and what steps to take if this occurred;

- Monitoring of subsurface earth disturbance by a professional archaeologist and a Gabrielino/Tongva representative if cultural resources are exposed during construction;

- Provide the archaeological monitor with the authority to temporarily halt or redirect earth disturbance work in the vicinity of cultural resources exposed during construction, so the find can be evaluated and mitigated as appropriate; and,

- As required by State law, prevent further disturbance if human remains are unearthed, until the County Coroner has made the necessary findings with respect to origin and disposition, and the Native American Heritage Commission has been notified if the remains are determined to be of Native American descent.

Based upon the above considerations, no significant cultural resources impacts are expected from the proposed Tesoro Reliability Improvement and Regulatory Compliance Project.

Conclusion

No significant adverse impacts to cultural resources are expected to occur as a result of construction and operational activities that Tesoro would undertake in order to complete the proposed project. Since no potentially significant adverse cultural resources impacts were identified, no further evaluation will be required in the EIR.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
6. ENERGY. Would the project:			
a) Conflict with adopted energy conservation plans?	☐	☐	☑
b) Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☑
c) Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☑

	Potentially Significant Impact	Less Than Significant Impact	No Impact
d) Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☑
e) Comply with existing energy standards?	☐	☐	☑

Checklist Response Explanation

6. a) & e) The potential for energy impacts associated with the activities from the proposed project was determined to be less than significant for the following reasons. The proposed project is not subject to any existing energy conservation plans or standards, so it is not expected to conflict with energy plans or standards. The proposed project includes a new replacement cogeneration system that will allow the Refinery to produce all of its own electricity during normal operations. Cogeneration facilities are more energy efficient than purchasing electricity from off-site providers. Therefore, the proposed project will increase the Refinery's energy efficiency.

6. b), c) & d) It is not expected that natural gas-fired or electrically powered construction equipment (other than electric welders) or vehicles will be used and; thus, there will be no need for new or substantially altered power or natural gas utility systems during construction of the proposed project. Electric welders will be used in areas of the Refinery/SRP were electrical power is already available Although construction equipment uses diesel fuel and some gasoline, use of these fuels is not considered to be a wasteful use of energy resources.

At the Tesoro Refinery the electricity required is typically supplied by the Refinery's cogeneration units and by the local electrical utility when the demand exceeds the capacity of the existing cogeneration facilities. The proposed project will increase the electricity generated by the Refinery so that Tesoro is expected to be able to supply nearly all of the electricity required for normal operations, thus, decreasing the amount of electricity provided to the Refinery by the local utility. The modifications at the SRP are not expected to require any additional electrical requirements. Therefore, the proposed project will have no adverse impact on electricity providers.

The proposed project will use either natural gas, Refinery fuel gas, or a combination to operate the new Cogeneration system and new boilers. The proposed project is not expected to result in an increase in the use of natural gas because the new equipment will replace old existing equipment. The new equipment is much more efficient than the existing equipment. Further, Tesoro generates sufficient quantities of refinery fuel gas that is currently used in its cogeneration system and boilers and will continue to use refinery fuel gas in its new cogeneration system and new boilers. Therefore, the proposed project modifications will not

require the purchase of additional quantities of natural gas. No new or substantially altered power utility systems will need to be built to accommodate the cogeneration system.

Based upon the above considerations, the energy impacts during the construction and operation phases of the proposed project are expected to be less than significant.

Conclusion

No significant adverse impacts to energy resources are expected to occur as a result of construction and operational activities that Tesoro would undertake in order to complete the proposed project. Since no potentially significant adverse energy impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
7.	**GEOLOGY AND SOILS.** Would the project:			
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☑	☐
	• 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?	☐	☑	☐
	• Strong seismic ground shaking?	☐	☑	☐
	• Seismic–related ground failure, including liquefaction?	☐	☑	☐
	• Landslides?	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☑	☐
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?	☐	☐	☑
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?	☐	☐	☑

	Potentially Significant Impact	Less Than Significant Impact	No Impact
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?	☐	☐	☑

Checklist Response Explanation

7. a and c) The potential for geology and soils impacts associated with the activities of the proposed project at the Tesoro Refinery/SRP was determined to be less than significant for the following reasons. The proposed project is located in a seismically active region. There is the potential for damage to the new structures in the event of an earthquake. New structures must be designed to comply with the Uniform Building Code Zone 4 requirements since the project is located in a seismically active area. The local cities are responsible for assuring that the proposed project complies with the Uniform Building Code as part of the issuance of the building permits (City of Los Angeles for the Refinery and City of Carson for the SRP) and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage.

The Uniform Building Code determines seismic design based on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site.

Tesoro must obtain building permits, as applicable, for all new proposed project structures. Tesoro shall submit building plans to the local cities for review. Tesoro must receive approval of all building plans and building permits to assure compliance with the latest Building Code adopted by the local cities prior to commencing construction activities.

Portions of the Refinery and SRP are located within an area where there has been historic occurrence of liquefaction or existing conditions indicate a potential for liquefaction (California Division of Mines and Geology, 1999). Therefore, there is the potential for liquefaction induced impacts at the Refinery since the appropriate parameters for liquefaction exist at the site, including unconsolidated granular soils and a high water table. The Uniform Building Code requirements consider liquefaction potential and establish more stringent requirements for building foundations in areas potentially subject to liquefaction. Therefore, compliance with the Uniform Building Code requirements is expected to minimize the potential impacts associated

with liquefaction. The issuance of building permits from the City will assure compliance with the Uniform Building Code requirements. Therefore, no significant impacts from liquefaction are expected.

Accordingly, the installation of new equipment at the Tesoro Refinery/SRP is required to conform with the Uniform Building Code and all other applicable state and local building codes. Thus, modifications and installations of new equipment would not alter the exposure of people or property to geological hazards such as earthquakes, liquefaction, subsidence, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structures to the risk of loss, injury, or death is not anticipated.

7. b) The proposed project is located within the confines of the existing Tesoro Refinery/SRP. Concrete foundations presently support Refinery structures and equipment. Most of the Tesoro Refinery/SRP roads, including all high traffic roads have been paved. The operating portions of the Tesoro Refinery/SRP are relatively flat. No unstable earth conditions, loss of topsoil, changes in topography or changes in geologic substructures are anticipated to occur with the proposed project because of the limited grading and excavation involved. No significant adverse impacts on topography and soils are expected.

The proposed project involves adding new equipment to existing facilities so construction activities are limited to foundation work and trenching for piping. At most, ground disturbance will be limited to installing foundations for new units and trenching for piping and utilities. Since the proposed project will occur within already developed facilities, no significant adverse impacts related to soil erosion are expected. No significant change in topography is expected because little grading/trenching is required that could substantially increase wind erosion or runoff from affected sites.

The proposed project will be required to comply with SCAQMD Rule 403 – Fugitive Dust, which imposes requirements to minimize dust emissions associated with wind erosion. Relative to operation, no change in surface runoff is expected because surface conditions will remain relatively unchanged.

7. d) & e) Since the proposed project is located in a heavy industrial zone, it is expected that people or property will not be exposed to expansive soils or soils incapable of supporting water disposal. Further, the Tesoro Refinery/SRP has existing wastewater treatment systems that will continue to operate and that will be available to handle wastewater produced by refining activities. The Tesoro Refinery does not use septic systems or alternative wastewater disposal systems. Further, no increase in water use or wastewater generated is expected due to the proposed project. Thus, the proposed project will not adversely affect soils associated with a septic system or alternative wastewater disposal system.

Based upon the above considerations, significant geology and soils impacts are not expected from the proposed project.

Conclusion

No significant adverse impacts to geology and soils are expected to occur as a result of construction and operational activities associated with the proposed project. Since no potentially significant adverse geology and soils impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
8.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:			
a)	Create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials?	☑	☐	☐
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?	☑	☐	☐
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑
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?	☐	☐	☑
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?	☐	☐	☑
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?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☑
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?	☐	☐	☑
i)	Significantly increased fire hazard in areas with flammable materials?	☑	☐	☐

Checklist Response Explanation

8. a), b) & i) Though hazard analyses have been previously completed for the existing equipment at the Tesoro Refinery/SRP, the proposed project may alter the existing hazards setting. For example, some of the new units that are proposed to be installed, such as the new Fuel Gas Treatment unit, may increase the potential hazards at the Tesoro Refinery or the SRP in the event of a release from the new unit. The proposed project could also increase the potential for fires and explosions associated with additional storage/use of flammable materials. In addition, the proposed project may increase the quantity of hazardous materials that will need to be transported to the Refinery for use (e.g., ammonia, sulfuric acid, etc.). The proposed project may also alter the transportation modes for feedstock and products delivered to and shipped from the Refinery and related terminals. The potential hazard impacts related to the proposed project are potentially significant and will be addressed in the EIR.

Increases in potential hazards associated with the implementation of the proposed project could potentially alter the probability for upset and accident conditions that could cause a release of hazardous materials into the environment. The potential effects of an accidental release of the additional hazardous materials being stored, used and transported as part of implementing the proposed project will be evaluated in the EIR.

8. c) The Tesoro Refinery and SRP are not located within one-quarter mile of an existing or proposed school. Therefore, no potential for impacts from hazardous emissions or the handling of acutely hazardous materials, substances and wastes on schools are expected.

8. d) The proposed project will be constructed within the confines of the existing Tesoro Refinery. In 1985, the Regional Water Quality Control Board (RWQCB) adopted Order 85-17 requiring Tesoro (Texaco at the time) (and 14 other local refineries) to conduct subsurface investigations of soil and ground water. Areas of soil contamination have been detected at the

site and remediated, as appropriate. Public Resources Code §21092.6 requires the lead agency to consult the lists compiled pursuant to §65962.5 of the Government Code to determine whether the project and any alternatives are located on a site that is included on such list. The Tesoro Refinery is included on a list compiled by CalEPA under Government Code §65962.5, dated May 6, 1999. The Refinery is listed on the May 6, 1999 list because it is on a list of Cleanup and Abatement Orders prepared by the State Water Resources Control Board (Order No. 97-118). For sites that are listed pursuant to Government Code §65962.5, the following information is required. Note that the SRP is not included on an applicable CalEPA List and, thus, not subject to §65962.5 requirements of the Government Code.

Applicant:	Tesoro
Address:	2101 E. Pacific Coast Highway, Wilmington, California 90744
Phone:	(310) 522-6000
Address of Site:	2101 E. Pacific Coast Highway, Wilmington, California 90744
Local Agency:	Wilmington, City of Los Angeles
Assessor's Book:	Parcel numbers 7315-014-008, 7315-017-005, 7428-007-003
List:	See above.
Regulatory ID No:	19290032, 4B192121001
Date of List:	See above.

Hazardous wastes from the existing Tesoro Refinery/SRP are managed in accordance with applicable federal, state, and local rules and regulations. The proposed project is not expected to alter the types of waste generated by the Refinery. Accordingly, significant adverse hazards and hazardous materials impacts from the disposal/recycling of hazardous materials are not expected from the proposed project.

8. e) & f) The proposed project will be constructed within the confines of the existing Refinery/SRP. The Tesoro Refinery/SRP is not located within two miles of an airport (either public or private), and is not located within an airport land use plan.

8. g) The proposed project is not expected to interfere with an emergency response plan or emergency evacuation plan. The Tesoro Refinery/SRP has an emergency response plan in effect. However, no modifications to the emergency response plan or the emergency evacuation plan are expected to be required as a result of the proposed project because it generally involves replacing end-of-life equipment with new, modern equipment.

8. h) The proposed project will not increase the existing risk of fire hazards in areas with flammable brush, grass, or trees. Although, additional natural gas may be used, and flammable materials may be stored, no substantial or native vegetation exists on or near the processing units so the proposed project is not expected to expose people or structures to wild fires. Therefore, no significant increase in wildland fire hazards is expected at the Tesoro Refinery/SRP.

Conclusion

Based on the above considerations, the potential hazards and hazardous materials impacts related to the operations at the Tesoro Refinery/SRP, and the transport of hazardous materials associated

with the Tesoro Reliability Improvement and Regulatory Compliance Project are potentially significant. Therefore, hazards and hazardous material impacts will be further evaluated in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
9.	**HYDROLOGY AND WATER QUALITY.** Would the project:			
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☑
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)?	☐	☐	☑
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?	☐	☐	☑
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?	☐	☑	☐
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☑	☐
f)	Otherwise substantially degrade water quality?	☐	☑	☐

		Potentially Significant Impact	Less Than Significant Impact	No Impact
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?	☐	☐	☑
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☑
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?	☐	☐	☑
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☑
k)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☑
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?	☐	☐	☑
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?	☐	☐	☑
n)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑
o)	Require 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?	☐	☐	☑

Checklist Response Explanation

9. a), f), k), l) & o) Wastewater Generation

The potential for hydrology and water quality impacts associated with construction and operational activities at the Tesoro Refinery/SRP was determined to be less than significant for the following reasons. Construction activities are not expected to create additional wastewater.

Wastewater streams from the Refinery/SRP include process wastewater, boiler blowdown, sanitary wastewater, and surface runoff. Process wastewater and surface water streams are treated by the Refinery's existing wastewater treatment facilities prior to discharge to the Los Angeles County Sanitation District (LACSD) sewer system; the sanitary wastewater stream is discharged directly to the sewer without prior treatment. Wastewater is treated and sampled in compliance with the LACSD Industrial Wastewater Discharge Permit. The LACSD places limitations on wastewater parameters such as oil and grease contents, pH levels, temperature, heavy metals, organic compounds and so forth. Wastewater that complies with the LACSD permit requirements is discharged to the sewer. Wastewater that does not comply is returned to the wastewater treatment system for further treatment.

Operational activities are not expected to require additional water use, thus, are not expected to generate any additional wastewater at the Refinery/SRP. The proposed project primarily consists of modifying and replacing existing equipment with new equipment. For example, an old cogeneration system will be replaced with a new cogeneration system and old boilers will be replaced with new boilers. The water use associated with the new cogeneration system and the new boilers is expected to be the same or less than the existing equipment. Most of the proposed project modifications will not require water use or generate wastewater including the fuel gas treatment unit, ammonia storage, DCU modifications, HCU modifications, FCCU modifications, coke handling system modifications, HTU-2 modifications, amine/sour water reliability upgrades, connecting PRDs to the flare, modifications to Heater H-101, and SRP Claus Unit modifications.

Wastewater will continue to be discharged in compliance with the LACSD Industrial Wastewater Discharge permit so no significant impacts on wastewater are expected from the proposed project. Based on the above considerations, the potential hydrology and water quality impacts, especially those associated with wastewater discharge, are expected to be less than significant for the proposed project.

9. b) & n) Water Demand

The proposed project is not expected to significantly adversely affect the quantity or quality of groundwater in the area of the Refinery/SRP. There is no beneficial use of ground water in the area of the Tesoro facilities since most of the aquifers are unusable for fresh water supply because of salt-water intrusion. Water will be used for dust suppression during grading activities, but the amount needed is not expected to exceed the SCAQMD's water demand significance threshold of five million gallons per day or more. The new or modified equipment is not expected to increase water use during operations at the Refinery/SRP because the proposed

project primarily consists of modifying and replacing existing equipment with new equipment. For example, an old cogeneration system will be replaced with a new cogeneration system and old boilers will be replaced with new boilers. The water use associated with the new cogeneration system and the new boilers is expected to be the same or less than the existing equipment. Most of the proposed project modifications will not require water use or generate wastewater including the fuel gas treatment unit, ammonia storage, DCU modifications, HCU modifications, FCCU modifications, coke handling system modifications, HTU-2 modifications, amine/sour water reliability upgrades, connecting PRDs to the flare, modifications to Heater H-101, and SRP Claus Unit modifications. Therefore, no significant adverse impacts are expected to ground water supplies or water demand from implementing the Tesoro Reliability Improvement and Regulatory Compliance Project.

9. c), d), e) & m) Surface Water Runoff

The Refinery and SRP are located adjacent to the Dominguez Channel and approximately 1.5 miles west of the Los Angeles River. The Los Angeles River and the Dominguez Channel are the major drainages that flow into the Los Angeles-Long Beach Harbor complex. Sediments and contaminants are transported into the harbor with the flows from the Los Angeles River and, to a lesser degree, the Dominguez Channel. The Los Angeles River drains an 832-square mile watershed basin, into the Long Beach Harbor. The Los Angeles River watershed is controlled by a series of dams, and an improved river channel with a design flow capacity of 146,000 cubic feet per second.

The Dominguez Channel originates in the area of the Los Angeles International Airport and flows southward into the East Channel of the Los Angeles Harbor. The Dominguez Channel, an 8.5-mile long structure, drains approximately 80 square miles west of the Los Angeles River drainage basin. Permitted discharges from industrial sources are a substantial percentage of the persistent flows in the Dominguez Channel.

Changes to the existing storm water collection systems are expected to be less than significant since most of the proposed modifications will occur within existing units. The proposed project is expected to increase paved areas at the Refinery by less than 0.1 acre so that no measurable increase in storm water is expected from the proposed project. The proposed project consists of modifications within or adjacent to existing units. At the Tesoro Refinery/SRP, storm water runoff within process unit areas is handled by the existing wastewater system and sent to an on-site wastewater treatment system prior to discharge to the Los Angeles County Sanitation Districts' system. Storm water runoff from outside the process unit areas will be collected, treated as necessary, and discharged pursuant to the Refinery/SRP's existing NPDES permit. The proposed project is not expected to result in a significant increase in storm water runoff, therefore, no significant adverse impacts on storm water runoff are expected.

9. g), h), & i) Flood Hazards

The proposed project is expected to involve construction and modification activities located within existing industrial facilities and does not include the construction of any new housing or construction of new housing within a 100-year flood hazard area. The Tesoro Refinery and SRP

are not located within a 100-year flood zone and would not expose people or property to any known water-related flood hazards. No significant adverse impacts associated with flood hazards are expected due to the proposed project.

9. j) Other Hydrological Hazards

The proposed project is located near the Ports of Long Beach and Los Angeles, but at a sufficient distance from the shore to avoid potential tsunami impacts. The Tesoro Refinery/SRP is located north of the Port of Long Beach. The construction of breakwaters offshore, combined with the distance of the Refinery/SRP from the water, is expected to minimize the potential impacts of a tsunami or seiche so that no significant impacts are expected. Further, the Tesoro Refinery/SRP is located in a relatively flat area, therefore, the proposed project is not susceptible to mudflows (e.g., hillside or slope areas) so that no significant impacts from mudflows would be expected.

Conclusion

No significant adverse impacts to hydrology and water quality are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse hydrology and water quality impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
10.	**LAND USE AND PLANNING.** Would the project:			
a)	Physically divide an established community?	☐	☐	☑
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?	☐	☐	☑
c)	Conflict with any applicable habitat conservation or natural community conservation plan?	☐	☐	☑

Checklist Response Explanation

10. a) The proposed project will occur within the confines of the existing Tesoro Refinery/SRP, thus, it will not result in physically dividing any established communities, but will continue the use of the site as a Refinery/SRP.

10. b) & c) Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by adoption of the proposed project. The proposed project will occur within the confines of the existing Tesoro Refinery/SRP, which is zoned for heavy industrial use. The proposed project is consistent with the heavy industrial land use of the site. Therefore, present or planned land uses in the region will not be affected as a result of the proposed project. Further, there are no habitat conservation or natural community conservation plans located within or adjacent to the existing Refinery/SRP.

Based upon the above considerations, significant adverse land use planning impacts are not expected from the implementation of the proposed project.

Conclusion

No significant adverse impacts to land use and planning are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse land use and planning impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
11.	**MINERAL RESOURCES.** 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?	☐	☐	☑
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?	☐	☐	☑

Checklist Response Explanation

11. a) & b) All construction and operational activities that would occur as a result of the proposed Tesoro project will occur within the confines of the Refinery/SRP. The proposed project would be consistent with the heavy industrial zoning for the Refinery/SRP and there are no mineral resources or operations on or near the Tesoro Refinery/SRP.

There are no provisions of the proposed project that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as aggregate, coal, clay, shale, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Based upon the above considerations, significant mineral resources impacts are not expected from the proposed project.

Conclusion

No significant adverse impacts to mineral resources are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse mineral resources impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
12.	**NOISE.** 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?	☐	☑	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☑	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☑	☐
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?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
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?	☐	☐	☑

Checklist Response Explanation

12. a), b), c), & d) The existing noise environment at the Tesoro Refinery/SRP is dominated by refinery equipment, other heavy industrial activities, and traffic. Construction activities for the proposed project are expected to generate noise associated with the use of heavy construction equipment and construction-related traffic. However, noise from the proposed project is not expected to produce noise in excess of current operations. The location of the construction activities will be adjacent to existing equipment and located adjacent to other industrial areas. The closest residents are located approximately one-quarter mile east of the Refinery/SRP and will be located about one-quarter mile to one-half mile from construction activities. These residents are located immediately east of the Terminal Island Freeway, which is the dominant noise source in adjacent areas. Because of the attenuation of noise over distance, the noise impacts associated with construction activities are expected to be less than significant since sufficient distance exists between the construction noise sources and sensitive receptors for the noise to be completely attenuated.

Operational noise from the proposed project is not expected to exceed that of current operations at the existing Refinery and SRP. The proposed project primarily consists of modifying and replacing existing equipment. For example, an old cogeneration system will be replaced with a new cogeneration system, old boilers will be replaced with new boilers, and the existing coke handling system will be replaced with a new coke handling system. The noise levels of the new equipment are expected to be about the same or less than the old, so no change in noise levels is expected during the operation of the proposed project. A number of the refinery modifications include replacing columns, accumulators, drums, heat exchangers, and condensers, e.g., DCU, HCU, FCCU, and HTU modifications, and the amine/sour water reliability upgrades. These modifications do not involve equipment that generates noise so no change in noise levels is expected. The proposed new equipment at the Refinery includes a new fuel gas treatment unit, ammonia storage tank, and crude oil storage tank. Of these, only the new fuel gas treatment unit will have pumps and other equipment that is a new noise source at the Refinery. Finally the modifications to the SRP (oxygen injection, burner replacement) are not expected to generate additional noise. Any new equipment installed at the Refinery or SRP is required to be limited to 85 decibels to minimize potential impacts to workers and the surrounding community. The new fuel gas treatment unit will be limited to 85 dBA and the closest residential areas to this unit are over on-half mile away. Therefore, because of the distance, the noise from this unit will be less than background noise levels at the residential areas. The overall noise levels at the Refinery/SRP equipment are expected to be about the same, so no change in noise levels is expected during the operation of the proposed project. Further, Occupational Safety and Health

Administration (OSHA) and California-OSHA have established noise standards to protect worker health. Noise impacts are expected to be less than significant.

12. e) & f) The Tesoro Refinery and SRP are not located within an airport land use plan, and the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airplanes.

Based upon the above considerations, significant noise impacts are not expected from the proposed project.

Conclusion

No significant adverse impacts to noise are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse noise impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
13.	**POPULATION AND HOUSING.** Would the project:			
a)	Induce substantial growth in an area either 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?	☐	☐	☑
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☑

Checklist Response Explanation

13. a) Construction and operational activities associated with the proposed project are not expected to involve the relocation of individuals, impact housing or commercial facilities, or change the distribution of the population because the proposed project will occur completely within existing industrial facilities. Up to about 500 construction workers are expected during peak construction activities and most of the workers are expected to come from the large labor

pool in southern California. No increase in the permanent number of workers at the Tesoro Refinery/SRP is expected following the construction phase because the primary effect of the proposed project is to modify and replace existing equipment.

13. b) & c) Since the proposed project includes modifications and/or changes at an existing Refinery and SRP which are located in an industrial setting, the proposed project is not expected to result in the creation of any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people or housing elsewhere in the district.

Based upon these considerations, significant population and housing impacts are not expected from the implementation of the proposed project.

Conclusion

No significant adverse impacts to population and housing are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse population and housing impacts were identified, no further evaluation will be required in the EIR.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
14. PUBLIC SERVICES. 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?	☐	☐	☑
b) Police protection?	☐	☐	☑
c) Schools?	☐	☐	☑
d) Parks?	☐	☐	☑
e) Other public facilities?	☐	☐	☑

Checklist Response Explanation

14.2 Environmental Setting and Impacts

14. a) & b) The Tesoro Refinery/SRP receives fire protection services from the City and County of Los Angeles and the City of Carson. The Tesoro Refinery/SRP is surrounded by fences and entry is restricted to several gates. A 24-hour security force operates at the Refinery/SRP. Fire protection services are supplemented by an on-site fire department. The proposed project will be constructed within the confines of the existing Refinery/SRP and involves the modification or replacement of existing equipment. The proposed project is not expected to increase the need or demand for additional public services (e.g., fire departments and police departments) above current levels because the proposed project will maintain existing operational capacity.

14. c), d) & e) The local labor pool (e.g., workforce) from the southern California area is expected to be adequate to fill the short-term construction positions for the proposed project. The proposed project will require a maximum of about 500 construction workers during peak construction periods. These workers are expected to come primarily from the labor pool in southern California. The proposed project will not result any additional permanent workers at the facility or increase the local population. Thus, no impacts are expected to local schools, parks, other public facilities or government services.

Based upon these considerations, significant public services impacts that could adversely affect service ratios, response times, etc., are not expected from the implementation of the proposed project.

Conclusion

No significant adverse impacts to public services are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse public services impacts were identified, no further evaluation will be required in the EIR.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
15. RECREATION.			
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.?	☐	☐	☑

		Potentially Significant Impact	Less Than Significant Impact	No Impact
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?	☐	☐	☑

Checklist Response Explanation

15. a) & b) The potential for recreation impacts associated with the proposed project at the Tesoro Refinery/SRP were determined to be less than significant for the following reasons. The proposed project will require a maximum of about 500 construction workers during the peak construction phase. These workers are expected to come from the large labor pool in southern California. The proposed project will not result in additional permanent workers at the facility or increase the local population. Thus, no impacts are expected to recreational facilities and the proposed project would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Conclusion

No significant adverse impacts to recreation are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse recreation impacts were identified, no further evaluation will be required in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
16.	**SOLID/HAZARDOUS WASTE.** Would the project:			
a)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☑	☐
b)	Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☑

Checklist Response Explanation

16. a) Solid Waste: The potential for solid/hazardous waste impacts associated with proposed project at the Tesoro Refinery/SRP were determined to be less than significant for the following reasons. Construction activities associated with the proposed project will increase the amount of solid waste generated and disposed. Demolition activities are expected to generate waste from the removal of the existing equipment that is proposed to be replaced. However, this equipment is expected to be either reused at another site outside of the district or recycled for metal content so that demolition activities are not expected to generate significant volumes of solid waste requiring disposal.

It is expected that a maximum of one cubic yard of asbestos containing material (ACM) will be present with the demolition of end-of-life equipment so that small volumes of ACM may require disposal. ACM may be disposed at a Class III disposal facility, e.g., the Waste Management's Azusa Land Reclamation Co. Landfill. The remaining capacity of the facility is about 34 million cubic yards of waste (CIWMB, 2006). Therefore, sufficient disposal capacity exists to handle the one time disposal of ACM associated with the demolition of the existing equipment.

Following completion of construction activities, no increase in solid waste is expected from the operation of the proposed project.

Hazardous Wastes: There are two hazardous waste (Class I) facilities in California, the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Safety-Kleen facility in Buttonwillow (Kern County). Kettleman Hills receives an average of 2,700 tons per day and has an estimated two million cubic yard capacity. The facility is expected to continue receiving wastes for approximately three years without an expansion or 25 years with an expansion. The facility operators are in the process of obtaining permits for expansion which would increase the landfill's life by another five years. The facility operators would then seek a permit for development of a new landfill with a 15-year life (email Communication, Fred Paap, Chemical Waste Management Inc., September 2007). Buttonwillow receives approximately 960 tons of hazardous waste per day and has an approximate remaining capacity of 8.8 million cubic yards. The expectant life of the Buttonwillow Landfill is approximately 40 years (Personal Communication, Marianna Buoni, Clean Harbors Buttonwillow, Inc., September 2007).

Hazardous waste also can be transported to permitted facilities outside of California. The nearest out-of-state landfills are U.S. Ecology, Inc., located in Beatty, Nevada; USPCI, Inc., in Murray, Utah; and Envirosafe Services of Idaho, Inc., in Mountain Home, Idaho. Incineration is provided at the following out-of-state facilities: Aptus, located in Aragonite, Utah and Coffeyville, Kansas; Rollins Environmental Services, Inc., located in Deer Park, Texas and Baton Rouge, Louisiana; Chemical Waste Management, Inc., in Port Arthur, Texas; and Waste Research & Reclamation Co., Eau Claire, Wisconsin.

Excavation activities associated with the proposed project could potentially generate up to about 30,000 cubic feet of soil, of which about 60 percent could be contaminated and require off-site disposal. The soil will be disposed at a hazardous waste facility, if it meets the definition of hazardous waste, or at another landfill if not. As demonstrated above, sufficient capacity exists

to handle the one-time generation of hazardous waste from contaminated soil during the construction phase.

The existing SCR units at the Refinery generate waste associated with removing NOx from the flue gas. The proposed project will add more equipment to the Refinery that requires the use of catalysts, including SCRs, gas turbines with carbon monoxide catalyst, and the hydrotreater catalysts associated with the fuel gas treatment system. The spent catalyst material generated by the new equipment is expected to be of the same or similar composition as spent catalyst currently generated by the Refinery/SRP (e.g., existing SCR catalyst). Spent catalysts are recycled for their heavy metal content so that additional quantities of hazardous wastes are not expected to be sent to a landfill. Therefore, the amount of additional wastes generated as part of the proposed project is not expected to exceed the capacity of any landfills used by Tesoro because they are expected to be recycled.

16. b) The Refinery/SRP currently complies with, and upon completion of the proposed project, is expected to continue to comply with federal, state, and local regulations related to solid and hazardous wastes. The Tesoro Reliability Improvement and Regulatory Compliance Project is not expected to adversely affect the Tesoro's ability to comply with federal, state, and local solid/hazardous waste regulations.

Conclusion

No significant adverse impacts to solid/hazardous waste are expected to occur as a result of construction and operational activities that the Tesoro Refinery/SRP would undertake in order to complete the proposed project. Since no potentially significant adverse solid/hazardous waste impacts were identified, no further evaluation will be required in the EIR.

	Potentially Significant Impact	Less Than Significant Impact	No Impact
17. TRANSPORTATION/TRAFFIC. 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)?	☑	☐	☐

		Potentially Significant Impact	Less Than Significant Impact	No Impact
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☑	☐	☐
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?	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☑
e)	Result in inadequate emergency access or access to nearby uses?	☐	☐	☑
f)	Result in inadequate parking capacity?	☑	☐	☐
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	☐	☐	☑

Checklist Response Explanation

17. a) & b) The proposed project will increase the traffic in the area associated with construction workers, construction equipment, and the delivery of construction materials. The proposed project is expected to require up to about 500 construction workers during the peak construction phase. Therefore, the traffic impacts associated with the proposed project during the construction phase are potentially significant and will be analyzed in the EIR.

Once construction of the proposed project is completed, the existing work force at the Refinery/SRP is not expected to increase or substantially change the volume of traffic. The proposed project will require additional delivery of aqueous ammonia for use in the SCRs and oxygen for use at the SRP (about once per month). In addition, catalyst in various units (SCRs and hydrotreater catalyst) will need to be changed once every three to 10 years. As a result, the proposed project may result in a maximum increase in trucks of one per day since the delivery of all project-related materials is infrequent. Therefore, the operation-related traffic is not expected to change so no significant impacts on traffic during operation of the proposed project is expected. Traffic impacts during operation, therefore, will not be further evaluated in the EIR.

17. c) The proposed project includes modifications to existing equipment and installation of new equipment within the existing Tesoro Refinery/SRP. The proposed modifications and new structures will be similar in height and appearance to the existing industrial structures. Since the proposed modifications and new structures will not be greater than 250 feet in height and are not expected to result in a change to air traffic patterns, notification to the Federal Aviation Administration pursuant to Advisory Circular AC 70/7460-2K is not required. Further, since the Refinery/SRP is located about four miles west of the nearest airport, Long Beach Airport (LGB), the Refinery/SRP is located outside of the normal flight pattern of LGB. In addition, the proposed project will not involve the delivery of materials via air cargo so no increase in air traffic is expected.

17. d) & e) The proposed project is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the Refinery/SRP. The proposed project does not include construction of roadways that could include design hazards. Emergency access at the Refinery will not be impacted by the proposed project and Tesoro will continue to maintain the existing emergency access gates to the Refinery/SRP.

17. f) Parking for the construction workers is usually provided within the confines of the existing Tesoro facilities. Portions of the proposed project at the Refinery are expected to impact onsite parking that is used for contractor parking. The construction of the proposed new crude storage tank is proposed to be located at a site used for contractor parking. Therefore, additional parking will be required during the construction phase and Tesoro is currently investigating the feasibility for off-site parking and transporting workers to the site. Once construction is complete, no increase in permanent workers is expected. As a result, operational parking impacts will not be further evaluated in the EIR. Therefore, the proposed project may result in significant parking impacts during the construction phase, which will be evaluated in the EIR.

17. g) The proposed project will be constructed within the confines of the existing Refinery/SRP and is not expected to conflict with adopted policies, plans, or programs supporting alternative transportation modes (e.g., bus turnouts, bicycle racks).

Conclusion

No significant adverse impacts to transportation/traffic are expected to occur as a result of operational activities at the Refinery/SRP due to implementation of the proposed project. Since no potentially significant adverse operational transportation/traffic impacts were identified, no further evaluation will be required in the EIR. The traffic and parking impacts associated with construction activities for the proposed project are potentially significant; therefore, these impacts will be further evaluated in the EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
18.	**MANDATORY FINDINGS OF SIGNIFICANCE.**			
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?	☐	☐	☑
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)	☑	☐	☐
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☑	☐	☐

18.1 Checklist Response Explanation

18. a) As shown in Section 4 – Biological Resources and Section 5 – Cultural Resources of this environmental checklist evaluation, the proposed project is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past. The affected site is part of an existing Refinery/SRP facility, which has been previously graded, such that the proposed project is not expected to extend into biologically or culturally sensitive areas, so that no significant adverse impacts are expected.

18. b) and c) The proposed project has the potential to result in an increase in emissions (including criteria pollutants, toxic air contaminants, and greenhouse gas emissions), hazard impacts, and traffic from the construction of the proposed project and has the potential to result in cumulative impacts in these areas. The potential cumulative impacts will be analyzed, as necessary, in the EIR. Potential adverse air quality and hazards and hazardous materials impacts could also aversely affect humans, either directly or indirectly. Potential adverse affects on humans will be included in the air quality and hazards and hazardous materials analyses.

Conclusion

Based on the a review of the environmental impacts associated with the proposed Tesoro Reliability Improvement and Regulatory Compliance Project, the SCAQMD has concluded that the proposed project may result in significant environmental impacts in the areas of air quality, hazards and hazardous materials, and transportation and traffic (including parking). Therefore, the preparation of an Environmental Impact Report is required.

M:\DBS\2550: NOP/IS:2550 Chap 2.doc

REFERENCES

Applied Earth Works, 1999. Memorandum from Melinda Horne on the Texaco Burial site to Mr. Harley Martin, Alameda Corridor Transportation Authority, dated September 24, 1999.

California Division of Mines and Geology, 1999. Hazard Zone Map, Long Beach Quadrangle, March 1999.

CIWMB, 2006. Solid Waste Information System, 2006. www.ciwmb.ca.gov/SWIS

Los Angeles, City of 1999. Wilmington-Harbor City Community Plan, A Part of the City of Los Angeles, General Plan, July 1999. http://www.lacity.org/PLN/complan/westla/wlmpage.htm.

OSHA, 2005. Safety and Health Topics, Ammonia Refrigeration. http://www.osha.gov/SLTC/ammoniarefrigeration/.

SCAQMD, 1993. CEQA Air Quality Handbook, SCAQMD, May 1993.

SCAQMD, 2001. Final EIR for ARCO CARB Phase 3 MTBE Phase-Out Project. SCH No. 2000061074 , May 2001.

SCAQMD, 2007. 2007 Air Quality Management Plan. http://www.aqmd.gov/aqmp/07aqmp/index.html

ACRONYMS

ABBREVIATION	DESCRIPTION
ACM	Asbestos Containing Material
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BPSD	Barrels per Stream Day
CARB Phase III	California Air Resources Board's gasoline requirements
CEQA	California Environmental Quality Act
CO	Carbon monoxide
COS	Carbonyl sulfide
DCU	delayed coking unit
FCCU	Fluid Catalytic Cracking Unit
HCU	Hydrocracking Unit
HTU	Hydrotreating Unit
LADWP	Los Angeles Department of Water and Power
LAR	Los Angeles Refinery
LGB	Long Beach Airport
LPG	liquefied petroleum gas
MACT	Maximum achievable control technology
mmBtu/hr	million British Thermal Units per hour
MW	Megawatts
NOP/IS	Notice of Preparation and Initial Study
NOx	nitrogen oxide
OSHA	Occupational Safety and Health Administration
PM10	particulate matter less than 10 microns in diameter
PRV	Pressure Relief Valve
PRD	Pressure Relief Device
RECLAIM	Regional Clean Air Incentive Market
RTCs	RECLAIM Trading Credits
RWQCB	Regional Water Quality Control Board, Los Angeles Region
SCAQMD	South Coast Air Quality Management District
SCR	Selective Catalytic Reduction
SOx	sulfur oxide
SRP	Sulfur Recovery Plant
Tesoro	Tesoro Refining and Marketing Company
USEPA	United States Environmental Protection Agency
VOC	volatile organic compounds

GLOSSARY

TERM	DEFINITION
Ambient Noise	The background sound of an environment in relation to which all additional sounds are heard..
Barrel	42 gallons.
Catalyst	A substance that promotes a chemical reaction to take place but which is not itself chemically changed.
Cogeneration	A cogeneration unit is a unit that produces electricity and useful thermal energy for steam or heating processes.
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.
dBA	The decibel (dDB) is one tenth of a bel 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.
Flue Gas	Gases produced by burning fuels in a furnace, heater or boiler.
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.
L_{50}	Sound level exceeded 50 percent of the time (average or mean level).
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.
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.
Residumm	Bottom portion (solids/residue) from fractionation columns that is unable to be refined further.
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 Catalytic Reduction	An air pollution control technology that uses a catalyst to remove nitrogen oxides from flue gas.

COMMENTS AND RESPONSE TO COMMENTS RECEIVED ON THE NOP/IS

TESORO RELIABILITY IMPROVEMENT AND REGULATORY COMPLIANCE PROJECT

RESPONSE TO COMMENTS RECEIVED ON NOP/IS

INTRODUCTION

The Notice of Preparation/Initial Study (NOP/IS) was circulated for a 30-day public review and comment period, which started on February 21, 2008, and ended March 21, 2008.

The NOP/IS included a detailed project description, the environmental setting for each environmental resource, and an analysis of each environmental resource on the California Environmental Quality Act (CEQA) checklist including all potentially significant environmental impacts. The SCAQMD received six comment letters on the NOP/IS during the public comment period. Responses to the comment letters are presented herein. The comments are bracketed and numbered. The related responses are identified with the corresponding number and are included in the following pages.

Comment Letter	Commentator
#1	Native American Heritage Commission
#2	Dept. of Toxic Substances Control
#3	Long Beach Unified School District
#4	Jo Ann Wysocki (citizen)
#5	Jo Ann Wysocki (citizen)
#6	Jo Ann Wysocki (citizen)

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
www.nahc.ca.gov
ds_nahc@pacbell.net

February 26, 2008

Ms. Barbara Radlein
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive
Diamond Bar, CA 91765-4182

Re: SCH# 2008021099; CEQA Notice of Preparation (NOP) draft Environmental Impact Report (DEIR) for the Tesoro Reliability Improvement and Regulatory Compliance Project; Los Angeles County, California

Dear Ms. Radlein:

Thank you for the opportunity to comment on the above-referenced document. The Native American Heritage Commission is the state agency designated for the protection of California's Native American cultural resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR per the California Code of Regulations § 15064.5(b)(c) (CEQA Guidelines). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE),' and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action: 1-1

√ Contact the appropriate California Historic Resources Information Center (CHRIS). Contact information for the 'Information Center' nearest you is available from the State Office of Historic Preservation in Sacramento (916/653-7278). The record search will determine: 1-2

- If a part or the entire (APE) has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure. 1-3
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ Contact the Native American Heritage Commission (NAHC) for:

* A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity who may have information on cultural resources in or near the APE. Please provide us site identification as follows: USGS 7.5-minute quadrangle citation with name, township, range and section. This will assist us with the SLF. 1-4

- Also, we recommend that you contact the Native American contacts on the attached list to get their input on the effect of potential project (e.g. APE) impact. In many cases a culturally-affiliated Native American tribe or person will be the only source of information about the existence of a cultural resource.

√ Lack of surface evidence of archeological resources does not preclude their subsurface existence.

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f)of the California Code of Regulations (CEQA Guidelines). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities. 1-5
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigations plans.

- CEQA Guidelines §15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the Initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American groups, identified by the NAHE, to ensure the appropriate and dignified treatment of Native American human remains and any associated grave goods. 1-6
- Health and Safety Code §7050.5, Public Resources Code §5097.98 and CEQA Guidelines §15064.5(d) mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. 1-7

√ Lead agencies should consider avoidance, as defined in CEQA Guidelines §15370 when significant cultural resources are discovered during the course of project planning or execution.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List.

Cc: State Clearinghouse

Native American Contacts
Los Angeles County
February 26, 2008

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm. 403
Los Angeles , CA 90020
(213) 351-5324
(213) 386-3995 FAX

Gabrielino/Tongva Council / Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
761 Terminal Street; Bldg 1, 2nd floor Gabrielino Tongva
Los Angeles , CA 90021
office @tongvatribe.net
(213) 489-5001 - Officer
(909) 262-9351 - cell
(213) 489-5002 Fax

Ti'At Society
Cindi Alvitre
6515 E. Seaside Walk, #C Gabrielino
Long Beach , CA 90803
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Tribal Chair/Cultural Resources
5450 Slauson, Ave, Suite 151 PMB Gabrielino Tongva
Culver City , CA 90230
gtongva@verizon.net
562-761-6417 - voice
562-925-7989 - fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
310-570-6567

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
ChiefRBwife@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed SCH#2008021099; CEQA Notice of Preparation (NOP) for the Tesoro Improvement and Regulatory Compiance Project; South Coast Air Quality Management District; located on Pacific Coast Highway/Alameda Street/Sepulveda Boulevrd; Los Angeles County, Calffironia.

COMMENT LETTER NO. 1
NATIVE AMERICAN HERITAGE COMMISSION
FEBRUARY 26, 2008

Response 1-1

The SCAQMD is aware of the requirements of CEQA Guidelines §15064.5 and has complied with this section as well as all other relevant CEQA requirements. As stated on pages 2-12 and 2-13 of the NOP/IS for the Tesoro Reliability Improvement and Regulatory Compliance Project, potential significant adverse impacts on cultural resources were not anticipated.

Based on previous studies, the area near the Dominguez Channel was used by the Tongva/Gabrielino people. Cultural studies found a Tongva/Gabrielino village site and a large cemetery was exposed in 1998 near the BP Refinery, which is adjacent to the Tesoro SRP (east of the Dominguez Channel) (SCAQMD, 2001). Construction activities at the Tesoro Refinery uncovered human remains within the confines of the Refinery near the eastern property line, just north of Pacific Coast Highway and adjacent to the Dominguez Channel. The human remains were determined to be of Native American origin, which were relocated and buried appropriately. Construction activities were suspended until all the remains were uncovered and a complete site investigation could be conducted. Additional site investigations did not uncover any additional human remains (Applied Earth Works, 1999).

The entire active portion of the Refinery and SRP have been previously graded and developed. Proposed project activities will occur in areas of the Refinery and SRP where the ground surface has already been disturbed, within or adjacent to existing refining units, and this past disturbance reduces the likelihood that previously unknown cultural resources will be encountered. Further, the Refinery and SRP sites do not contain known cultural resources and, thus, the proposed project is not expected to impact any sites of cultural value.

As a result, no impacts to historical, archaeological or paleontological resources (as defined in §15064.5 of the CEQA Guidelines) are expected as a result of the implementation of the proposed project.

Response 1-2

The Tesoro Reliability Improvement and Regulatory Compliance Project is designed to occur within the boundaries of an existing Refinery and SRP. The primary objective of these improvements is to improve the reliability of Refinery the operations and to comply with regulatory requirements. The sites adjacent to the existing equipment have been previously graded to accommodate previous Refinery projects associated with the placement and relocation of infrastructure (i.e., underground utilities and piping).

Therefore, no cultural resources or native American remains are expected to be found in or surrounding the property (i.e., area of potential effect) because these areas have already been graded.

As a result, based on historical activities at the sites, the proposed project was determined to not cause a potential "substantial adverse change in the significance of any historical resource" which would require a further evaluation of cultural resources in the draft EIR. See also Response 1-1 regarding the site investigation performed at the Tesoro Refinery and SRP.

Response 1-3

An archaeological inventory survey was not required to be performed for the proposed project. See Responses 1-1 and 1-2 for reasons why a second site survey was not required.

Response 1-4

As noted in Responses 1-1 and 1-2, additional archaeological investigations are not required.

Response 1-5

As noted in Response 1-1, previous construction activities have uncovered human remains near the Dominguez Channel, but a further site investigation did not uncover additional human remains or artifacts. The location of the proposed project modifications will occur within areas of the Refinery and SRP that have already been graded and developed with other equipment and foundations. Therefore, no impacts to cultural resources were determined to result from the proposed project because of the location of new equipment. As a result, no further analysis of cultural resources in the draft EIR was required.

Based on the historical use of the site and the numerous construction activities, which included subsurface activities, the likelihood of encountering cultural resources is low. It should be noted, however, that construction activities for the proposed project at the Refinery and SRP include standard procedures for accidentally encountering any archaeological, Native American or cultural resources on-site. Compliance with all local, state and federal regulations (and notifications) will occur in the event of an accidental discovery of any cultural or historic resources.

Response 1-6

With regard to the potential for discovery of Native American remains, refer to Responses 1-1, 1-2 and 1-5.

As stated on pages 2-12 and 2-13, the NOP/IS did not identify the presence or likely presence of Native American human remains. Therefore, agreements with Native Americans to assure appropriate treatment of Native American human remains are not required unless Native American human remains are discovered during site excavation. See also Responses 1-1, 1-2 and 1-5.

Response 1-7

As noted in Responses 1-1 and 1-2, discovery of human remains relative to the proposed project is not anticipated. However, the construction activities associated with the Tesoro Reliability Improvement and Regulatory Compliance Project will cease to prevent further disturbance if human remains are unearthed, until the County Coroner has made the necessary findings with respect to origin and disposition, as required by Public Resources Code 5097.98-99 and Health and Safety Code 7050.5.

CEQA Guidelines §15370(a) defines avoidance as: "Avoiding the impact altogether by not taking a certain action or parts of an action." As stated on pages 2-12 and 2-13 of the NOP/IS, the presence or likely presence of Native American human remains is not expected. However, in the event significant cultural resources in the form of Native American human remains are discovered, construction activities will cease and Tesoro will comply with proper federal, state and local regulations as described in Response 1-5.

Linda S. Adams
Secretary for
Environmental Protection

Department of Toxic Substances Control

Maureen F. Gorsen, Director
5796 Corporate Avenue
Cypress, California 90630

Arnold Schwarzenegger
Governor

March 26, 2008

Barbara Radlein
Air Quality Specialist
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765-4182
Bradlein@aqmd.gov

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE TESORO RELIABILITY IMPROVEMENT AND REGULATORY COMPLIANCE PROJECT, CARSON, LOS ANGELES COUNTY (SCH#2008021099)

Dear Ms. Radlein:

The Department of Toxic Substances Control (DTSC) has received your submitted Notice of Preparation (NOP) for the above-mentioned project. The following project description is stated in your document: "The Tesoro Reliability Improvement Project will occur at Tesoro's Refinery and at their separate Sulfur Recovery Plant. The purpose of the proposed project is to increase the reliability of specific existing processing equipment at both Tesoro facilities. The proposed changes to the Refinery include the following: 1) install a new fuel gas treatment unit; 2) replace an existing cogeneration system with a new cogeneration system; 3) replace multiple, existing steam boilers with new equipment; 4) modify the Delayed Coking Unit (DCU), the Hydrocracking Unit (HCU) and the Fluid Catalytic Cracking Unit (FCCU) to increase recovery of liquefied petroleum gas (LPG); 5) modify the existing coke handling, screening, and loading system; 6) modify the existing Hydrotreating Unit (HTU) No. 2 in order to comply with the revised California Air Resources Board's gasoline specifications (revised CARB Phase III); 7) upgrade the existing amine/sour water system to improve hydrocarbon removal efficiency; 8) connect certain existing atmospheric pressure relief devices to the existing flares to prevent direct atmospheric releases; 9) improve sulfur treatment for the sour gas from the spent acid storage tank and the LPG sulfur extraction unit; 10) modify the coke drum blowdown system; 11) modify heater number H-101 at the DCU; and 12) install a new crude oil storage tank. The proposed project at the Sulfur Recovery Plant will modify an existing Claus Unit to improve sulfur recovery." DTSC has the following comments; please address if applicable.

1) The EIR should identify the current or historic uses at the project site that may have resulted in a release of hazardous wastes/substances, and any known or potentially contaminated sites within the proposed Project area. For all identified sites, the EIR should evaluate whether conditions at the site may pose a threat to human health or the environment. Following are the databases of some of the pertinent regulatory agencies:

   National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).

   Envirostor: A Database primarily used by the California Department of Toxic Substances Control, accessible through DTSC's website (see below).

   Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.

   Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S.EPA.

   Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.

   Leaking Underground Storage Tanks (LUST) / Spills, Leaks, Investigations and Cleanups (SLIC): A list that is maintained by Regional Water Quality Control Boards.

   Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.

   The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).

2-1

2) The EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC would require an oversight agreement in order to review such documents. Please see comment No. 14 below for more information.

2-2

3) All environmental investigations, sampling and/or remediation for the site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found should be clearly summarized in a table. "The potential hazards and hazardous materials impacts related to the operations at the Tesoro Refinery/SRP, and the transport of hazardous materials associated with the Tesoro Reliability Improvement and Regulatory Compliance Project are potentially significant." Therefore, further evaluation of hazards and hazardous material impacts will be required in the EIR. 2-3

4) Proper investigation, sampling and remedial actions overseen by the respective regulatory agencies, if necessary, should be conducted at the site prior to the new development or any construction. All closure, certification or remediation approval reports by these agencies should be included in the EIR. 2-4

5) If any property adjacent to the project site is contaminated with hazardous chemicals, and if the proposed project is within 2,000 feet from a contaminated site, then the proposed development may fall within the "Border Zone of a Contaminated Property." Appropriate precautions should be taken prior to construction if the proposed project is within a Border Zone Property. 2-5

6) If buildings or other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should be conducted for the presence of other related hazardous chemicals, lead-based paints or products, mercury, and asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies. 2-6

7) Project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination. 2-7

8) Human health and the environment of sensitive receptors should be protected during the construction or demolition activities. If it is found necessary, a study of the site and a health risk assessment overseen and approved by the appropriate 2-8

government agency and a qualified health risk assessor should be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment. 2-8 cont.

9) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. 2-9

Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA. 2-10

If the project plans include discharging wastewater to a storm drain, you may be required to obtain an NPDES permit from the overseeing Regional Water Quality Control Board (RWQCB). 2-11

12) If during construction/demolition of the project, the soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. 2-12

If the site was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency at the site prior to construction of the project. 2-13

14) EnviroStor is a database primarily used by the California Department of Toxic Substances Control, and is accessible through DTSC's website. DTSC can provide guidance for cleanup oversight through an Environmental Oversight Agreement (EOA) for government agencies, or a Voluntary Cleanup Agreement (VCA) for private parties. For additional information on the EOA or VCA, please see www.dtsc.ca.gov/SiteCleanup/Brownfields, or contact Maryam Tasnif-Abbasi, DTSC's Voluntary Cleanup Coordinator, at (714) 484-5489. 2-14

15) In future CEQA documents, if the project title changes, please provide historical project title(s). 2-15

If you have any questions regarding this letter, please contact Tong Qiao, Project Manager, at tqiao@dtsc.ca.gov or by phone at (714) 484-5470.

Sincerely,

Greg Holmes
Unit Chief
Southern California Cleanup Operations Branch - Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
state.clearinghouse@opr.ca.gov.

CEQA Tracking Center
Department of Toxic Substances Control
Office of Environmental Planning and Analysis
1001 I Street, 22nd Floor, M.S. 22-2
Sacramento, California 95814
gmoskat@dtsc.ca.gov

CEQA#2086

COMMENT LETTER NO. 2
DEPARTMENT OF TOXIC SUBSTANCES CONTROL
MARCH 26, 2008

Response 2-1

The SRP is not included on any of the lists identified in this comment or on any list compiled pursuant to §65962.5.

The Tesoro Refinery site has been used as a Refinery since the 1920's and the proposed project will be constructed entirely within the confines of the existing Tesoro Refinery and SRP. As discussed in the NOP/IS (see page 2-19 and 2-20), the Regional Water Quality Control Board (RWQCB) adopted Order 85-17 requiring Tesoro (Texaco at the time) (and 14 other local refineries) to conduct subsurface investigations of soil and ground water and applied to the Refinery as a whole and not individual projects. Areas of soil contamination have been detected at the site and remediated, as appropriate. Groundwater monitoring activities continue to be required to demonstrate no further releases occur from the site. The Refinery (not the SRP) is included on lists compiled by CalEPA and is under a Cleanup and Abatement Order prepared by the State Water Resources Control Board. The proposed project will not impact any existing remediation activities and related groundwater monitoring at the Refinery, alter the types of waste generated by the Refinery, or result in increased site contamination. Any existing site contamination is regulated under existing rules and requirements and not an "impact" associated with the proposed project. Therefore, significant hazard or hazardous materials impacts associated with the proposed project and related to contamination are not expected from the proposed project.

Response 2-2

See Response 2-1 regarding existing site contamination. The proposed project does not currently require any environmental investigations, sampling, and/or remediation activities. As discussed in the NOP/IS (see page 2-33 and 2-34), construction activities associated with the proposed project could result in the discovery of contaminated soils. Tesoro will be required to notify appropriate regulatory agencies, including the RWQCB and DTSC, and comply with all applicable rules and regulations in the event that contaminated soils are encountered. If contaminated soil is encountered, it will be disposed at a hazardous waste facility, if it meets the definition of hazardous waste, or at another landfill, if not.

Response 2-3

See Responses 2-1 and 2-2 regarding existing site contamination. The hazards associated with the proposed project modifications were evaluated in the Draft EIR (see Chapter 4, Subsection 4.3 – Hazards and Hazardous Materials and Appendix D). No environmental

site assessment specific to the proposed project areas has currently been conducted and there is no requirement to do so.

Response 2-4

See Responses 2-1 and 2-2 regarding existing site contamination.

Response 2-5

The Refinery is not located within 2,000 feet from a contaminated site that is defined as a Border Zone of a Contaminated Property as defined under the California Code of Regulations §67390.2 - §67391.1. (http://www.envirostor.dtsc.ca.gov/public)

Response 2-6

Prior to demolishing any structures, Tesoro's standard procedure is to conduct an investigation to determine the presence of hazardous chemicals/materials, e.g., lead-based paints, asbestos, etc. Appropriate control and containment methods will be employed when hazardous materials are found. Such investigations will be completed prior to any demolition activities and compliance with applicable rules and regulations will be required.

Response 2-7

See Response 2-2 regarding the potential discovery of contaminated soils. In addition, the proposed project does not require importing soil for backfilling purposes. However, should soil be needed, Tesoro will take appropriate measures to assure that only clean backfill is used for backfilling purposes, either by purchasing the soil from a credible vendor or testing the soil for contamination.

Response 2-8

As discussed in Response 2-2, contaminated soils may be discovered during construction activities. Tesoro will be required to comply with all applicable rules and regulations in the event that contaminated soils are encountered and remediation is necessary. A hazard analysis was prepared for the proposed project and is summarized in the "Hazards and Hazardous Materials section in Chapter 4. The full hazard analysis is included in Appendix D of this EIR.

Response 2-9

The potential for the generation of hazardous waste as part of the project operations is discussed in the NOP/IS (see pages 2-34). The proposed project will add more equipment to the Refinery that requires the use of catalysts, including SCRs, gas turbines with carbon monoxide catalyst, and the hydrotreater catalysts associated with the fuel treatment system. The spent catalyst materials generated by the new equipment are

expected to be the same or similar composition as spent catalyst currently generated by the Refinery and SRP. Catalyst handling procedures are not expected to change even though there use of catalyst will increase. Spent catalysts are recycled for heavy metals content so that additional quantities of hazardous wastes are not expected to be sent to a landfill.

Response 2-10

See Response 2-9 regarding hazardous waste generated by the proposed project. The proposed project will not add any new waste treatment processes or storage that will require authorization from a CUPA.

Response 2-11

As discussed in the NOP/IS (see page 2-24), the proposed project is expected to increase paved areas at the Refinery by less than 0.1 acre so that no measurable increase in storm water is expected from the proposed project. Storm water runoff within process unit areas is handled by the existing wastewater treatment system and sent to an on-site wastewater treatment system prior to discharge to the Los Angles County Sanitation Districts' system. Storm water runoff from outside the process unit areas is treated and discharged pursuant to the Refinery's existing NPDES permit. The proposed project is not expected to result in a significant increase in storm water runoff or require modifications to the existing NPDES permit.

Response 2-12

See Responses 2-1, 2-2, 2-6, 2-7 and 2-8 regarding the potential discovery of soil contamination at the Refinery/SRP.

Response 2-13

See Response 2-1. The facility has been a Refinery since the 1920's. No agricultural, livestock or related activities have occurred at the facility during recent history.

Response 2-14

EnviroStor was used to provide applicable information associated with the Refinery and the proposed project.

Response 2-15

DTSC will be notified of project title changes should they occur in the future.

long beach unified school district

BUSINESS DEPARTMENT - Business Services
Facilities Development & Planning Branch
Donald K. Allen Building Services Facility
2425 Webster Ave., Long Beach, CA 90810
(562) 997-7550 Fax (562) 595-8644

March 20, 2008

Ms. Barbara Radlein
Air Quality Scientist
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive
Diamond Bar, California 91765-4128

Via Fax: (909) 396-3324 and email: Bradlein@aqmd.gov

Re: LBUSD Comments on the Tesoro Reliability Improvement and Regulatory Compliance Project, Notice of Preparation of a Draft Environmental Impact Report

Dear Ms. Radlein;

The Long Beach Unified School District (LBUSD) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Tesoro Reliability Improvement and Regulatory Compliance Project ("Project"). We trust that the City will prepare a DEIR that includes a comprehensive evaluation of the Project and the potential impacts on the environment. The LBUSD is particularly interested in seeing that the analyses in the DEIR adequately address any potential impacts that the Project may have on school facilities, including the impacts from odors and air emissions.

The South Coast Air Quality Management District (SCAQMD) published the Notice of Preparation and Initial Study (NOP/IS) for the Project on February 20, 2008, and held a public scoping meeting on February 28, 2008 in Wilmington. LBUSD has reviewed the NOP/IS and attended the scoping meeting. 3-1

The NOP/IS describes 13 discrete Project components (operational or structural changes) at two locations: 1) the Tesoro Refinery, located at 2101 East Pacific Coast Highway, Wilmington, California ("Refinery"); and 2) the Tesoro Sulfur Recovery Plant ("Sulfur Plant"), located at 23208 S. Alameda Street, Carson, California. The NOP/IS also solicited comments on the environmental issues to be addressed in the DEIR. Accordingly, the remainder of this letter outlines general and specific comments that we request be addressed in the DEIR.

GENERAL COMMENT

Long Beach Unified School District

LBUSD was originally established in 1885 with fewer than a dozen students meeting in a borrowed tent and is now fully responsible for providing school facilities and public education services to approximately 86,000 students in 95 public schools in the cities of Long Beach, Lakewood, Signal Hill, and Avalon on Catalina Island. It is the third-largest school district in the state of California and employs more than 8,000 teachers and staff, making it the largest employer in the City of Long Beach.

Components of Refinery Project

For reference, the proposed changes to the Refinery, as described in the NOP/IS, include the following 12 Project components: 1) install a new fuel gas treatment unit; 2) replace an existing cogeneration system with a new cogeneration system; 3) replace multiple, existing steam boilers with new equipment; 4) modify the Delayed Coking Unit (DCU), the Hydrocracking Unit (HCU) and the Fluid Catalytic Cracking Unit (FCCU) to increase recovery of liquefied petroleum gas (LPG); 5) modify the existing coke handling, screening, and loading system; 6) modify the existing Hydrotreating Unit (HTU) No.2 in order to comply with the revised California Air Resources Board's gasoline specifications (revised CARB Phase III); 7) upgrade the existing amine/sour water system to improve hydrocarbon removal efficiency; 8) connect certain existing atmospheric pressure relief devices to the existing flares to prevent direct atmospheric releases; 9) improve sulfur treatment for the sour gas from the spent acid storage tank and the LPG sulfur extraction unit; 10) modify the coke drum blowdown system; 11) modify heater number H-lOl at the DCU; and, 12) install a new crude oil storage tank. The thirteenth Project component is proposed modification of an existing Claus Unit to improve sulfur recovery at the Sulfur Plant.

3-1 Cont.

Air Quality and Odor Impacts to Schools from Refinery and Sulfur Plant

Several LBUSD facilities are located in close proximity to and down wind from the Refinery and Sulfur Plant. The District is very concerned with existing air quality impacts from strong petroleum and "sulfur" odors as well as toxic air contaminants (TACs), and impacts that could potentially result during and after construction of the Project. Accordingly, we request that the DEIR quantitatively address odor and air quality impacts to school properties and occupants for all phases of the Project, including: 1) pre-construction (baseline); 2) during construction of each of the 13 discrete Project components; and 3) post-construction, including the individual and cumulative impacts of all 13 Project components. We also request that the DEIR address development and implementation of appropriate mitigation measures to minimize these impacts to school properties and occupants, for each of the time periods (pre-, during and post construction) and each of the 13 Project components (individually and cumulatively).

3-2

Assessment, Mitigation and Monitoring

Each Project component should be assessed and monitored for its potential emissions of odors, soot and TACs, and the associated impacts to LBUSD students, staff and school district properties. Appropriate mitigation measures should be in-place or proposed to minimize any impacts. Examples of the types of issues to be addressed include the following:

- Modification of the coke storage, handling, screening and loading system is proposed. How and to what extent will these modifications effect fugitive dust or soot emissions?
- The Project includes modification of the Sulfur Plant, with the objective of increasing sulfur removal capacity of the Claus Units. How and to what extent will these modifications effect emissions of odors, particulates and TACs?
- A new 500,000 gallon crude oil storage tank is proposed. How and to what extent will additional crude oil storage capacity effect emissions of odors and TACs?
- What are the impacts of each Project component individually, and what are the impacts of all Project components together? What monitoring and assessment measures are in place or proposed to detect emissions and their impacts to off-site receptors? What mitigation measures are in-place or proposed to minimize impacts? What mitigation monitoring programs are in-place or proposed to assess the effectiveness of mitigation measures?

3-3

SPECIFIC COMMENTS

Schools Proximate to the Tesoro Refinery

Hudson K-8 School, at 2335 Webster Avenue, Long Beach, is located 0.37 mile east from the boundary of the Refinery. Just to the south of Hudson K-8 School and less than ½ mile east from the Refinery is Reid Continuation High School, at 2152 W. Hill St., and Cabrillo High School, at 2001 Santa Fe Avenue, Long Beach, located. The LBUSD Maintenance and Facilities Branch complex, at 2425 Webster Ave., Long Beach, is located immediately north of Hudson K-8 School and 0.40 mile east from the Refinery. Other schools in close proximity to the refinery and sulfur Plant include: Stephens Middle School, 1830 W. Columbia St. (0.45 mile E); Webster Elementary School, 1755 W. 32nd Way (0.80 mile ENE); Garfield Elementary School, 2240 Baltic Ave. (0.92 mile E); and Muir Elementary School, 3038 Delta Ave. (1.09 miles E).

3-4

Prevailing Winds

Prevailing winds in the area are from the north-west (NW) and west-north-west (WNW), according to the wind rose plot from the Saints Peter and Paul School meteorological station for the year 2005 – 2006 (see attached wind rose). These prevailing winds place the refinery upwind from the nearby LBUSD properties. Thus, airborne emission from the Refinery predominantly will be transmitted toward the nearby school properties. In particular, the prevailing winds blow directly from the Sulfur Plant and the north end of the Refinery (e.g., coke handling/screening/loading and crude oil storage areas) toward Hudson K-8 School and the LBUSD Maintenance and Facilities Branch property.

3-5

Odors

Odors of sulfur and petroleum have been noticed by LBUSD students and staff. The DEIR should address the impact of odors from the Refinery and the Sulfur Plant on nearby and down wind school properties. The DEIR also should discuss existing and proposed monitoring programs and mitigation measures to detect and minimize impacts from odors, and the chemicals that cause them.

3-6

Soot

The DEIR should address the deposition of particulate matter emissions from the Refinery and/or the Sulfur Plant on nearby and down wind school properties. The DEIR also should discuss existing and proposed monitoring programs and mitigation measures to detect and minimize impacts from soot emissions.

3-7

Toxic Air Contaminants

Numerous studies have shown that school children are among those most vulnerable to toxic air contaminants (TACs). LBUSD believes it is critically important that the DEIR quantify and consider the effects of toxic air contaminants from the Refinery and the Sulfur Plant on the health of staff and students, as well as other sensitive subpopulations. Please consider the following in your health effects assessments -- before, during and after Project construction -- and recommendations for mitigation measures:

- Exposure patterns among students and staff --as a function of Refinery and Sulfur Plant operations -- that result in disproportionately high or episodic exposure;
- Special susceptibility of infants and children;
- Effects of simultaneous exposure to compounds with the same mechanisms of action; and,
- Any interactions of air pollutants known to originate from the Refinery and Sulfur Plant.

3-8

CONCLUSION

In summary, LBUSD reiterates that the DEIR needs to adequately address odors, TACs and soot (particulates) emissions from the Refinery and Sulfur Plant -before, during and after Project construction- and thereby, allow accurate assessment and effective mitigation and monitoring of the corresponding impacts to LBUSD school children, staff and facilities. We encourage you to prioritize your efforts to ensure development of mitigation measures for odors, soot, and TAC emissions, especially those impacting adjacent schools, and that these receive the highest level of consideration from refinery related activities.

3-9

LBUSD appreciates the opportunity to participate in the DEIR development process. We look forward to working with the SCAQMD and Tesoro in the continuing review and assessment of methodologies and measures that ultimately will minimize the health risks and nuisance associated with odors, soot, and TAC emissions. Thank you for the opportunity to comment on the NOP/IS. If you have any questions, please feel free to contact me at (562) 997-7550.

Sincerely,

Carri M. Matsumoto
Executive Director
Facilities Development & Planning Branch
Long Beach Unified School District

CM:khr

cc: Chris Steinhauser – LBUSD Superintendent of Schools
Kim Stallings – LBUSD Chief Business & Financial Officer
Karl Rodenbaugh – The Planning Center

COMMENT LETTER NO. 3
LONG BEACH UNIFIED SCHOOL DISTRICT
MARCH 20, 2008

Response 3-1

The comments regarding the Long Beach Unified School District (LBUSD) are noted. The comment reiterates the components of the proposed project, so no further response is required.

Response 3-2

The air quality impacts associated with the proposed project are addressed in the EIR in Chapter 4, Subsection 4.2 Air Quality, Appendices B and C. In addition, the health risks associated with the proposed project are evaluated in Volume II of the EIR, the Health Risk Assessment.

In summary, peak regional construction emissions (including projects with overlapping construction schedules) for the proposed project for NOx are expected to remain significant following mitigation. The construction emissions associated with CO, VOC, SOx, PM10 and PM2.5 are expected to remain less than significant following mitigation. Construction emissions are expected to be short-term and they will be eliminated following completion of the construction phase.

The mitigation measures identified in the EIR are expected to result in additional emission reductions and reduce the potentially adverse significant regional impacts associated with NOx emissions; however, sufficient emission reductions are not expected to reduce the significant NOx emissions to less than significant. CO, VOC, SOx, PM10, and PM2.5 emissions would remain less than significant as prior to mitigation.

Localized air quality impacts from construction activities were analyzed for NO_2, CO, PM10, and PM2.5. The construction activities associated with the proposed project are not expected to cause a significant adverse impact on local ambient air quality in the vicinity of the Refinery and no mitigation would be required. The analysis concluded that construction emissions of NO_2, CO, PM10 and PM2.5 would not exceed applicable localized significance thresholds.

The operational impacts of the proposed project are expected to result in an increase in VOC emissions. VOC emission impacts will be reduced to less than significant through the use of emission offsets as required by SCAQMD Regulation XIII – New Source Review. The proposed project is not expected to have significant CO, NOx, SOx, PM10, or PM2.5 air quality impacts during operation. The proposed project is expected to result in substantial reductions of criteria pollutant emissions during operation. Therefore, the

operation of the proposed project is not expected to cause a significant adverse impact on ambient air quality.

The proposed project was analyzed for cancer and non-cancer human health impacts and determined to be less than significant. The cancer risk at the most impacted sensitive receptor (Bethune Mary School about 0.43 mile east of the Refinery) was 6.76 per million. The estimated cancer risk due to the operation of the proposed project is expected to be less than the significance criterion of 10 per million. The chronic hazard index and the acute hazard index are both chronic and acute hazard index significance threshold of 1.0. Therefore, the proposed project is not expected to cause a potentially significant adverse impact associated with exposure to toxic air contaminants.

The odor analysis for the proposed project was completed as part of the NOP/IS (see pages 2-8 and 2-9). No increase in odors is expected from the proposed project; therefore, no significant odor impacts are expected.

Response 3-3

See Response 3-2 regarding air quality impacts from the proposed project. The proposed project is expected to replace or modify existing equipment with newer, more efficient equipment, thus providing overall reductions in criteria pollutant, air toxics, and greenhouse gas emissions. The proposed project is expected to result in decreases in CO, NOx, SOx, PM10, and PM2.5 emissions (see Draft EIR, Table 4-5). Note that particulate matter emissions are expected to be reduced by about 170 pounds per day as a result of project operation.

The modification to the coke storage handling facilities is to modernize the existing coke transfer and storage units. No increase in coke throughput is expected and no increase in particulate matter emissions (PM10 and PM2.5) is expected.

As discussed in the NOP/IS (see pages 2-8 and 2-9), the SRP Claus Unit modifications will make the Refinery more efficient in controlling air pollutants by adding oxygen to the combustion air, thus reducing sulfur emissions and the potential for odor impacts. The proposed changes to the SRP are not expected to result in any emission increases but could potentially result in a reduction in sulfur compounds and related particulate matter. Since no significant air quality impacts are expected, no mitigation measures are required.

The crude oil storage tank is expected to result in an increase of about 16 pounds per day of VOC emissions. The VOC emissions will be mitigated through the use of VOC offsets as required by SCAQMD Regulation XIII – New Source Review. The TAC emissions were evaluated as part of the health risk assessment completed for the proposed project in Chapter 4. Based on the air quality modeling and related assumptions consistent with SCAQMD HRA policy, based on 70 year exposure, the cancer risk to the MEIR associated with the proposed project at the Refinery was calculated to be 6.76×10^{-6} or 6.7 in one million. This result does not exceed the cancer

risk CEQA significance threshold of 10 per one million (10×10^{-6}); therefore, the carcinogenic impacts to the MEIR associated with exposure to TACs from the proposed project are less than significant.

As discussed in Chapter 2, Subsection 3 – Air Quality of the NOP/IS, the proposed project is not expected to create significant objectionable odors either during construction or operation of the new or modified equipment. Sulfur compounds (e.g., hydrogen sulfide) are the primary sources of odors from existing operations throughout the Refinery. The sulfur-bearing materials are handled and treated in the Sulfur Recovery Units where they are converted to elemental (solid) sulfur, which does not emit an appreciable odor. Though the Refinery will continue to process sulfur-bearing materials in the Sulfur Recovery Units, the proposed project is expected to increase the reliability associated with handling sulfur-bearing material, thus, reducing the potential for odor impacts from the existing Refinery. Further, the Tesoro Refinery/SRP maintains staff available 24 hours per day for odor investigation, which contributes to minimizing the frequency and magnitude of odor events. In addition, all new and modified components of the proposed project will be required to comply with BACT requirements as well as existing SCAQMD rules and regulations, including Rule 402 – Prohibition of Nuisances. Compliance with BACT and Rule 402 is expected to help minimize the frequency and magnitude of odor events at the Refinery/SRP. Therefore, no significant odor impacts are expected from constructing and implementing the proposed project.

Response 3-4

The potential impacts to schools in the area were evaluated as part of the proposed project impacts and included in the Health Risk Assessment (see Draft EIR, Volume II), Table 6. The cancer risk at the most impacted sensitive receptor (Bethune Mary School about 0.43 mile east of the Refinery) was 6.76 per million. The cancer risk at all other schools (including Hudson School, Cabrillo High School, Stephens Middle School, Webster Elementary School and Garfield Elementary School) and sensitive receptors are less than 6.76 per million and also less than significant. Sensitive receptors more than one mile away were not evaluated because the health risks were below significance levels for schools and sensitive receptors located within one mile of the Refinery and SRP and will be much less for schools more than one mile away from the Tesoro facilities.

Response 3-5

The air quality modeling uses meteorological data from the Long Beach monitoring station, which includes actual wind direction, speed, etc. The air quality analyses, air modeling and health impacts for the schools take into account that the predominant wind direction is from the west and south/west.

Response 3-6

See Response 3-2 regarding odor impacts. The Tesoro Refinery/SRP maintains staff available 24 hours per day for odor investigation, which contributes to minimizing the frequency and magnitude of odor events. In addition, all new and modified components of the proposed project will be required to comply with BACT requirements as well as existing SCAQMD rules and regulations, including Rule 402 – Prohibition of Nuisances. Compliance with BACT and Rule 402 is expected to help minimize the frequency and magnitude of odor events at the Refinery/SRP. Therefore, no significant odor impacts are expected from constructing and implementing the proposed project.

Response 3-7

See Response 3-3 regarding project emissions. The proposed project is expected to result in a decrease in emissions of particulate matter (PM10 and PM2.5) (see EIR Table 4-5) associated with the operation of the proposed project.

Response 3-8

See Response 3-2 regarding air quality impacts associated with the proposed project. See Response 3-4 regarding toxic air contaminant emissions and impacts to sensitive receptors, including local schools.

Response 3-9

As discussed in Responses 3-1 through 3-8, the air quality analysis for the proposed project included construction activities, project operation activities, criteria pollutants, toxic air contaminants and odors. Construction emissions for the proposed project for NOx are expected to remain significant following mitigation. The construction emissions associated with CO, VOC, SOx, PM10 and PM2.5 are expected to remain less than significant following mitigation. Construction emissions are expected to be short-term and they will be eliminated following completion of the construction phase. Following construction activities, the proposed project is expected to result in a decrease in emissions of CO, NOx, SOx and particulate matter (PM10 and PM2.5) (see EIR Table 4-5) providing a beneficial air quality impact.

3-4-08

Draft Env. Impact Report
Tesoro Refinery - Recovery Plant

"The closest residential area is about one-half mile east of the Refinery in the City of Long Beach."
Page 1-2 I.S.

"The Tesoro Refinery and SRP are not located further one-quarter mile of an existing or proposed school."
Page 2-9 I.S.

Apostolic Faith Center School
mailing 1523 East Robidoux St.
location 1510 Wilmington (East Robidoux St. - 4)
Attention Alfred Carrillo

is located 1/10th of a mile from the refinery even when driving on the street. The

4-1

school is location in a Residential zone. This makes the homes in East Wilmington close to the refinery.

4-1 cont.

Other addresses to put on the mailing list.

Holy Family Grammar School
1122 East Robidoux St.
Wilmington 90744
(310) 518-1440

Wilmington Park School
~~Mrs. Tolbert~~
Debra Bina O'Brian
1140 Mahar
Wilmington 90744
310 518-7460

Wilmington Park Childrew's Center
1459 East Young
Wilmington 90744 Mrs. Tolbert 310 518-3207

4-2

Jo Ann Wysocki
1006 King Avenue
Wilmington 90744-3204
(310) 834-5658

I will include this information in my major comments.

COMMENT LETTER NO. 4
JO ANN WYSOCKI
MARCH 4, 2008

Response 4-1

See the EIR, in Chapter 4, Subsection 4.2 Air Quality and the Health Risk Assessment (Volume II of the EIR). The distances to all residential areas and sensitive receptors have been updated and included in the air quality and HRA analysis. See also Responses 3-2 and 3-3.

Response 4-2

The schools recognized in this comment letter were included in the HRA and will be included in the mailing list.

Page 1

March 10, 2008

S.C.A.Q.M.D.
Subject: Comments Public Hearing 2/28/08
Draft E.I.R. Preparation
Tesoro Reliability Improvement
and Regulatory Compliance Project

1. Will the proposed improvements result in any potential future increase in Tesoro's capacity?
a. Replace cogen unit
30 30 mW replace
65 mW new
An increase of 5 mW
b. Aqueous ammonia tank added 5-1
12,000 gallons
c. Replace 4 boilers 734.6 BTU
2 new boilers 800.0 BTU
An increase of 65.4 BTU
1.3.2 d. Replace 3 overhead accumulators
1.3.2.1 add a new fractionator 1.3.2
1.3.2.1
What will the capacity of the 3 larger fractionator vessels be?
1.3.3 e. How large or small will the coke facility be?
- Will the coke facility be enclosed? 5-2
1.3.3 - How will the coke be transported out of the Tesoro facility?
- What arrangements are there

Page 2

to clean the streets if trucks are used to haul the coke?

f. What is the capacity of the sour treatment?

g. Construction of a new 500,000 barrel crude oil storage tank.

h. New larger amine flash drum
- Capacity

i. Hydro treating
23,000 BPSD 27,000 BPSD
- Is this an increase of 4,000 BPSD?

j. New pressurized oxygen storage tanks
- Capacity?

5-2 cont.

5-3

5-4

5-5

5-6

5-7

My concern is that when I read the Description of Nature Project the statistics are:
new - 1
replace - 2
modify - 2
upgrade - 1
improve - 1
install - 1

5-8

When I read pages 1-7 to 1-11 the descriptive adjectives increase:
new - 10 adding - 5
replace - 6 replace - 8
modification - 7
upgrade - 1
increase - 4

Page 3

Since 5 of the proposed projects will take 2 years (FIGURE 5) what are the working hours of the 10 hour shift?

5-9

2. Is Tesoro responsible for cleaning up any current contamination on construction sites.

5-10

Please give a Tesoro phone / or other contact number for any possible odor releases.

5-11

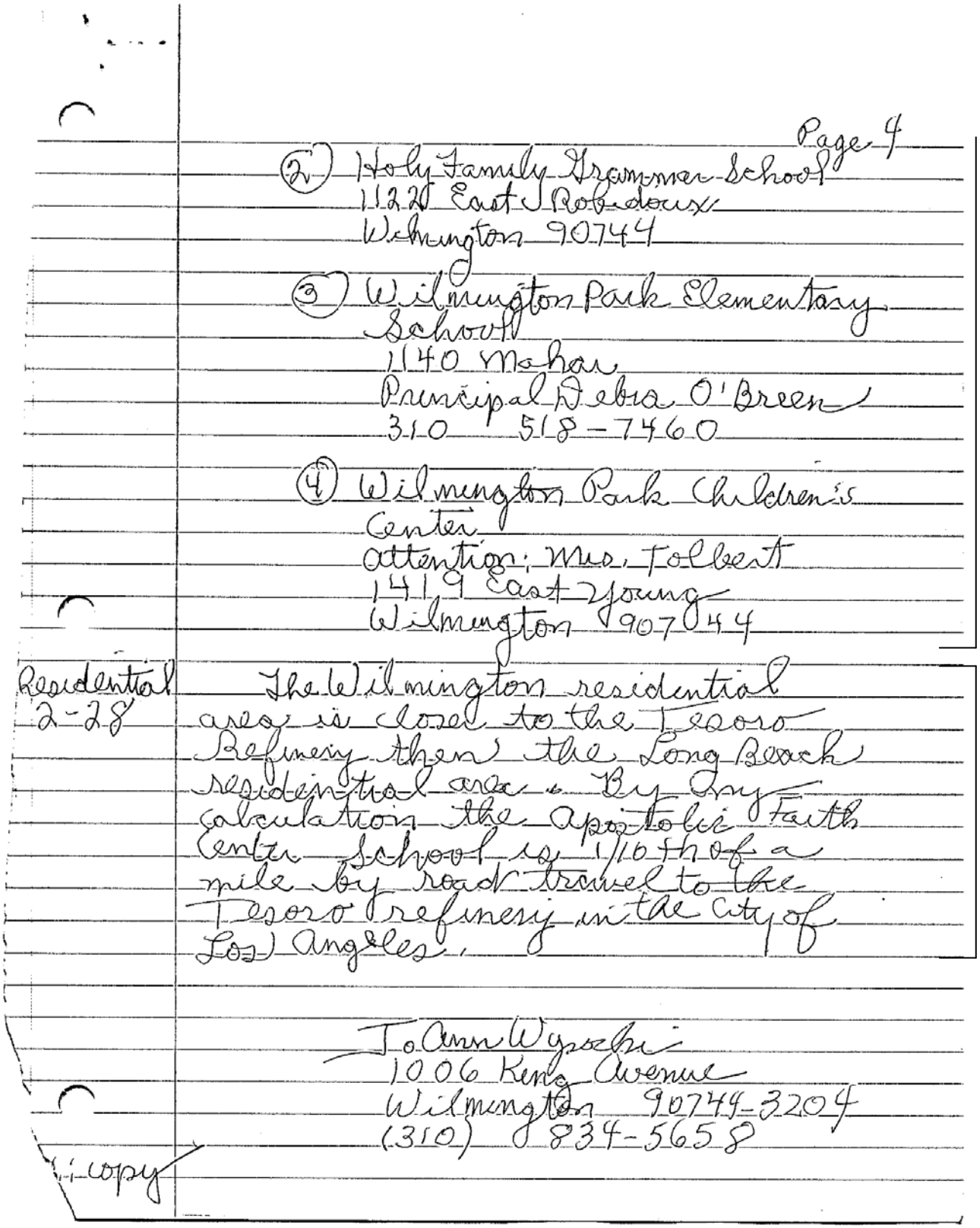
Has a copy of the Draft E.I.R. been delivered to the Wilmington Public Library on "N" Street at Avalon Blvd? Will the library receive all reports? Also the Carson Regional Library on Carson Blvd. at Main Street.

5-12

Have, and/or will copies of the draft E.I.R. been delivered to

1. Apostolic Faith Center School
1510 East Robidoux
Wilmington 90744
attention: Alfred Carrillo

5-13



Page 4

(2) Holy Family Grammer School
1120 East J Rob-deaux
Wilmington 90744

(3) Wilmington Park Elementary School
1140 Mahar
Principal Debra O'Breen
310 518-7460

(4) Wilmington Park Children's Center
attention: Mrs. Tolbert
1419 East Young
Wilmington 90744

5-13 cont.

Residential 2-28

The Wilmington residential area is closer to the Tesoro Refinery then the Long Beach residential area. By any calculation the Apostolic Faith Center School is 1/10th of a mile by road travel to the Tesoro refinery in the City of Los Angeles.

5-14

JoAnn Wysocki
1006 Kenq Avenue
Wilmington 90744-3204
(310) 834-5658

1 copy

COMMENT LETTER NO. 5
JO ANN WYSOCKI
MARCH 10, 2008

Response 5-1

As discussed in the EIR (see page 2-2), the proposed project will not result in an increase or decrease in crude throughput capacity at the Refinery. The proposed new Cogeneration Units and Boilers will replace existing equipment and emissions from these units will be subject to the lowest achievable emissions rate. A new aqueous ammonia tank is required to supply ammonia to the Selective Catalytic Reduction (SCR) equipment, which is air pollution control equipment and required to reduce NOx emissions. The proposed new overhead accumulators in the Delayed Coking Unit will be larger to increase the reaction time of the unit, allowing the recovery of more liquid product (e.g., LPG), but will not increase the crude throughput capacity.

Response 5-2

The proposed project includes the modernization of the existing coke storage and handling facility by replacing the existing coke barn and certain associated coke transfer equipment with a new structure (coke storage facility) and related equipment. Final design for the new coke storage handling facility is not completed, but the coke storage facility is expected to be no larger than the existing coke barn and will be enclosed (as is the existing coke barn). The coke production capacity and transport of coke from the Tesoro facility is expected to remain unchanged. The current requirements that minimize the tracking of coke outside the facilities will remain in place including street cleaning. The operation will continue to comply with SCAQMD Rule 1158 requirements.

Response 5-3

The proposed project includes the Recovery/Treatment of sour gas from the spent acid storage tank and LPG sulfur extraction unit. This portion of the proposed project will allow sour gas from the spent acid storage tank to be recovered and treated, reducing sulfur emissions and the potential for public nuisance. This unit will have no impact on the crude throughput capacity of the Refinery.

Response 5-4

The construction of the new crude oil storage tank will allow for storage flexibility, but will not result in an increase in crude throughput capacity of the Refinery.

Response 5-5

The proposed project includes the installation of a new larger amine flash drum to allow the proper residence time of the amine solution to enhance removal of hydrocarbons and prevent the hydrocarbons from being inadvertently routed to the sulfur plants. Final designs for the amine/sour water reliability upgrades are not completed, but the equipment will enhance removal of hydrocarbons, but will not increase the crude capacity of the Refinery.

Response 5-6

Modifications to HTU-2 will allow more naphtha to be desulfurized to meet sulfur specifications associated with revised CARB Phase III gasoline requirements. These modifications may allow HTU-2 to increase its capacity to treat naphtha from 23,000 to 27,000 barrels per day, allowing the production of more compliant gasoline. These proposed modifications will not result in an increase in crude throughput capacity of the Refinery.

Response 5-7

The modifications to the SRP will allow an increased removal of sulfur at the Claus Units, potentially reducing the overall sulfur emissions from the facility. These proposed modifications will not result in an increase in crude throughput capacity of the Refinery.

Response 5-8

The objectives of the proposed project are to replace existing equipment with new equipment to reduce overall Refinery emissions and improve the operating efficiency of the Refinery. While a number of modifications to the Refinery are proposed, they will largely replace existing equipment with new equipment and increase the operating efficiency of the Refinery. The project description on page 1-1 of the NOP/IS is a summary of the more detailed project description on pages 1-7 to 1-11 of the NOP/IS. Also, see Chapter 2 of the EIR for a more detailed project description.

Response 5-9

As discussed in Section 2.7 – Construction of the Proposed Project in the EIR, construction work shifts are expected to last from about 7 am to 4 pm.

Response 5-10

As discussed in the NOP/IS (see page 2-33 and 2-34), construction activities associated with the proposed project could result in the discovery of contaminated soils. Tesoro will be required to comply with all applicable rules and regulations in the event that contaminated soils are encountered. In the event contaminated soils are encountered, they will be disposed at a hazardous waste facility, if it meets the definition of hazardous

waste, or at another landfill, if not. Also, see Responses 2-7 and 2-8 regarding potential soil contamination.

Response 5-11

Tesoro maintains a 24-hour Community Hot Line and will respond to calls from community members. Tesoro Community Hot Line number is 310-522-ODOR (6367).

Response 5-12

Copies of the Draft EIR will be placed in the Wilmington and Carson Public Libraries, and will be available on-line at the SCAQMD website, available at the SCAQMD Headquarters located at 21865 Copley Drive, Diamond Bar, California 91765, or by calling (909) 396-2039.

Response 5-13

Copies of the Draft EIR will be sent to the schools identified in this comment as well as to the Long Beach Unified School District.

Response 5-14

See the EIR, Chapter 4, Subsection 4.2 Air Quality and the HRA (Volume II of the EIR). The distances to all residential areas and sensitive receptors have been updated and included in the air quality and HRA analysis.

Page 1

March 15, 2008

Subject: Draft Environmental Impact Report Notice of Preparation

Tesoro Reliability Improvement and Regulatory Compliance Project

1. Suggest notice of Preparation be sent to
   a. Torrance Daily Breeze
      Torrance, California
   b. Long Beach Press Telegram
      Long Beach, California
   c. La Opinion
      Los Angeles

6-1

2. Suggest notice of meetings and environmental impact reports be sent to
   a. Wilmington Public Library "N" St. at Avalon
   b. Carson Regional Library Carson St. at Main St
   c. Apostolic Faith Center School
      Alfred Carrillo
      1510 East Robidoux St.
      Wilmington 90744

6-2

Page 2

d. Holy Family Grammar School
1122 East Lobidoux
310 518 1440
Wilmington 90744

e. Wilmington Park Elementary School
1140 M Shar
Debra Bema O'Breen Principal
Wilmington 90744
310 518 7460

f. Wilmington Park Children's Center
Mrs. Tolbert
1419 East Young
Wilmington 90744

6-2 cont.

3. Since the Environmental Impact will be done by a private firm rather than the S.C.A.Q.M.D. please state qualifications of those doing the report.

6-3

4. Table of Contents - Please state where Tesoro gets its petroleum from.

6-4

5. 1.0 Introduction
"will not increase the crude capacity of The Tesoro Refinery."

new - 1 upgrade - 1
replace - 2 improve - 1
modify - 2 install - 1

} page before title page

6-5

page 3

new - 10
replace - 6
modify - modifications - 7
upgrade - 1
replaced - 8
adding - 5
increase - 4
} pages 1-7/1-11

6-5 cont.

When you read pages 1-7/1-11 the descriptive adjectives for the project increase making the project look bigger. "Project will not increase or change ..." (page 1-1, 1.0 Introduction).

6-6

6. Project location 1.2 Please re-examine the distance of the refinery from the Wilmington residential area and the Apostolic Faith Center School at 1510 East Robidoux Street.

6-7

page 1-9 1.3.3.

7. Initial Study page 1-5 What is the route to be taken when Coke leaves the Coke facility? What control provisions are made for blowing coke dust and street cleaning?

6-8

1.3.1.1 "reduce NOx"

8. 1.3.1 Will these proposed improvements reduce or eliminate Tesoro's need to purchase NOx? Please state current need of the refinery to purchase NOx.

6-9

9. 1.3.1.2 Steam Boilers
4 Boilers 734.16 BTU
An increase of BTU

replace with 3 Boilers 800 BTU

Page 4

Page 1-8 1.3.1.4 Where will the 12,000 gallon storage tank be located?

6-10

page 1-9 1.3.3, Coke Handling
Where will the new coke loading facility be located; how will the coke be transported; will the roads be cleaned if coke is transported by motor vehicle?
See Rev #7

6-11

page 1-10 1.3.4, The modification of the HTU-2 area an increase from 23,000 barrels to 27,000 BPSD - ? 2.) this modification or addition?

6-12

page 1-10 1.3.7, Please state or review A.Q.M.D. violations by the previous oil refinery as well as any since Tesoro's ownership.

6-13

page 1-11 1.3.9 Do the 500,000 barrel crude oil storage tanks a potential for future increased crude production.

6-14

1.3.10 How many trucks on what schedule along what route will the liquid oxygen be delivered?

6-15

page 1-11

Page 5

page 1-12

1.4 4 construction projects (Figure 5 page 1-12) will take 2 years, 8 construction projects will take roughly 1 year. Explain. 6-16

If the workers work 10 hours a day, please give starting and stopping times. Please give a contact person/telephone number for noise complaints. 6-17

Will the work be done 7 days a week? Also holidays?

Page 2-2

Potentially significant impact Areas

(1.) Biological Resources } address potential
Water Quality } on Domenguez Channel 6-18

page 2-24
4-c, d, e, m

(2) Population/Housing Address closeness to eliminating residential areas that are RI land Apostolic Faith Center School, 1510 East Robidoux. 6-19

(3.) Public Service Address police – haz mat – fire contract services 6-20

(4) Noise Address 4 projects of 2 years construction period. Noise from construction. 6-21

Page 6

page 2-6 3. Air Quality - Explore cumulative increase in emissions/impact (page 2-8) because of industrial area 6-22

page 2-8c 4. Give contact person/telephone number on odors (page 2-9 e) 6-23

4. Dominguez Channel - Biological Resources (page 2-9, 2-10, 2-11 (2-10 #4) discuss. 6-24

page 2-15 7. Geology and Soils
Discuss earthquake fault to page 2-15 a. 6-25

Page 2-17 7b How do the construction people plan to minimize dust from construction. 6-26

Please provide contact person/telephone number for dust complaint especially during Santa Ana conditions. 6-27

page 2-18 8. Hazardous Materials
~~How~~ Who will do the construction — private firms or the refinery? 6-28

Will all equipment/materials be stored on the refinery site

page 7

or transported as needed.

Routes of entry to refinery or SRP to eliminate unnecessary movement.

6-28 cont.

page 2-18 8c Please examine the location of the Apostolic Faith School, page 2-19 8d 1590 East Reliance Street, Wilmington.

By road I caculate it to be 1/10th of a mile to the refinery.

6-29

page 2-19 8g What is the refinery's emergency response and evacuation plan?

6-30

What is Tesoro's fire fighting capabilities? What are Tesoro's contacts with County and City fire stations and hazmat facilities?

6-31

page 2-21 9 Hydrology Please show a map of the 100-year flood page 2-22 hazard area.

6-32

page 2-23 page 2-24 9 c, d, e, m, 9 g, h, i Surface Water Runoff What substantial percentage of the persistent flows in the Domenguez Channel?

6-33

Page 8

page 2-27 12. Noise Total noise WITH THE PROJECT. 6-34

Cumulative noise because of the industrial area.

12. a, b, c, d page 2-28 Please look at the closest residential area west of the Refinery. There may be railroad tracks and walls, but the East Wilmington residential area is close to the refinery. 6-35

Tesoro holds meetings with community members. Have EAST WILMINGTON residents been included in those meetings. The manager of the Chamber of Commerce is a West Wilmington resident. 6-36

Page 2-30 a, b, c, g 14. Public Services: What are Tesoro's contracts with the L.A. City Fire Department, the L.A. Police Department, the Los Angeles City Schools and appropriate Carson City and Los Angeles County agencies now? Will such contracts change 6-37

Page 9

with these proposed construction? 6-37 cont.

Page 2-32 Does Tesoro have to clean up/ any hazardous waste on proposed construction sites? 6-38

Page 2-33 16a Other than asbestos are there other solid wastes whose presence should be explored on the construction sites. 6-39

Page 2-34 Transportation - Traffic
How many trips, to and from, for how long - for 4 areas of 2 years construction duration. 6-40

17F Where will construction employees park especially for the longer construction times? 6-41

Will the shafer construct projects be done at the same time? 6-42

What is the estimated number of employees for construction. 6-43

Will the construction be

Page 10

7 days a week, holidays and weekends? 6-43 cont.

page 2-36 17c What is the present height of structures at the refinery? Please detail the height of all the proposed new and modified structures at the refinery. Also the coke barn. 6-44

17f What areas are being investigated for off site worker parking? 6-45

page 2-37 18. Please explore MANDATORY/ FINDINGS OF SIGNIFICANCE on the cumulative impacts of these projects because of the industrial area. 6-46

Please be sure a copy of the Environmental Report is DELIVERED TO the Wilmington Public Library and the Carson Regional Library. 6-47

cc: copy

JoAnn Wysocki
1006 King Avenue
Wilmington 90744-3204
(310) 834-5658,

COMMENT LETTER NO. 6
JO ANN WYSOCKI
MARCH 15, 2008

Response 6-1

Your comment is noted. The Notice of Preparation is legally required to be sent to the newspaper of widest circulation in the area which is the Los Angeles Times. The Notice of Completion of the Draft EIR will be sent to the Los Angeles Times, as well as to the other publications mentioned in this comment.

Response 6-2

Copies of the Draft EIR will be placed in the Wilmington and Carson Public Libraries, and will be available on-line at the SCAQMD website, available at the SCAQMD Headquarters located at 21865 Copley Drive, Diamond Bar, California 91765, or by calling (909) 396-2039. Copies of the Draft EIR will be sent to the schools identified in this comment as well as to the Long Beach Unified School District.

Response 6-3

The EIR was prepared by Environmental Audit, Inc. (EAI). EAI has extensive experience in the preparation of CEQA documents for a variety of industrial facilities, including refineries. EAI has prepared over 100 refinery-related CEQA documents. In April 2006, the SCAQMD sent out a Request for Proposal (#P2006-16) for qualified CEQA consultants to assist in the preparation of CEQA documents, including the EIR for the 2007 Air Quality Management Plan. The SCAQMD reviewed and evaluated the proposals. After review of the proposals, EAI had the highest score and was awarded a contract along with another firm.

Response 6-4

As discussed in Responses 5-1 through 5-8, the proposed project will not increase the crude throughput capacity of the Refinery. Tesoro purchases crude oil from various places throughout the world and the proposed project will not alter the purchasing practice of crude oil.

Response 6-5

See Responses 5-1 through 5-8 regarding the proposed project and the increase in crude throughput capacity of the Refinery.

Response 6-6

See Responses 5-1 through 5-8 regarding the proposed project and the discussion regarding the crude throughput capacity of the Refinery.

Response 6-7

As discussed in Response 5-14, the distances to all residential areas and sensitive receptors have been updated and included in the air quality and HRA analysis. See the EIR, in Chapter 4, Subsection 4.2 Air Quality and the Health Risk Assessment (Volume II of the EIR).

Response 6-8

There will be no change from the existing transportation route, which follows the Alameda Corridor to the coke facilities in the port where they are shipped offshore. In addition, Tesoro will continue work practices, maintenance, and street cleaning consistent with the requirements of SCAQMD Rule 1158. See Response 5-2 regarding the replacement of the existing coke storage and handling facilities.

Response 6-9

The proposed project is expected to reduce the NOx emissions from the Refinery by more than 900 pounds per day (see Draft EIR, Table 4-5) and reduce the need for Tesoro to purchase NOx RECLAIM trading credits.

Response 6-10

See the Draft EIR, Figure 2-3 for the location of the new aqueous ammonia tank.

Response 6-11

The location of the coke storage and handling facilities after modification will remain in the same location as the existing coke handling facilities (see the Draft EIR, Figure 2-3 for the location). Also, see Response 5-2 for additional information regarding the coke storage and handling facilities.

Response 6-12

See Response 5-6 for further discussion regarding modifications to the HTU-2 unit. The changes to HTU-2 are proposed modifications to an existing unit.

Response 6-13

Since Tesoro became the operator of the Los Angeles Refinery on May 11, 2007, the refinery received nine Notices of Violations. Two violations were issued for leaking fugitive components; the leaks were remedied on the same day. Another Notice of Violation was issued because the flare exceeded SCAQMD's Rule 401 limit during a start-up period. The issue with the flare violation has been resolved. Also, Tesoro self-reported a violation because of non-compliance with RECLAIM Protocols.

Another Notice of Violation was issued because there was a temporary failure of the refinery's vapor recovery system. The Refinery came into compliance within minutes and self-reported the violation to SCAQMD personnel. A Notice of Violation was issued for operating two fire water engines with manufacturing name and horsepower rating inconsistent with the SCAQMD permits. Tesoro remedied this inconsistency by applying for Class III permit modifications that were consistent with the permit description for these two engines.

A Notice of Violation was issued for venting refinery gas to the flare when the cogeneration unit B shutdown unexpectedly. The unit is currently operating in full compliance.

The other Notices of Violations were issued for fugitive component leaks. These leaks were immediately fixed and the facility returned to compliance.

Violations at other refineries are outside the scope of the Tesoro proposed project.

Response 6-14

See Response 5-4. The construction of the new crude oil storage tank provides additional crude storage capacity and operational flexibility. The crude oil storage tank will not result in an increase in crude capacity of the refinery.

Response 6-15

A maximum of about one truck per week will be required to transport oxygen to the SRP. The schedule and route have not yet been determined as the specific supplier has not been identified. However, the oxygen is expected to come from the Air Products facility located adjacent to the SRP.

Response 6-16

The time necessary to complete the various construction activities will vary depending on the size, complexity and whether it is a modification, replacement on installation of new equipment. Please see the Chapter 2, Subsection 2.7 and Figure 2-5 for a discussion of the construction activities associated with the proposed project and the expected schedule.

Response 6-17

See Response 5-9. As discussed in Section 2.7 – Construction of the Proposed Project in the EIR, construction work shifts are expected to last from about 7 am to 4 pm, Monday through Friday, except during Refinery turnaround periods when two work shifts are expected. Compliance with the noise ordinance is enforced by the local city and they should be contacted for noise violations.

Response 6-18

The potential impacts of the proposed project on biological resources and water quality were addressed in the NOP/IS (pages 2-10 through 2-11 and 2-23 through 2-25, respectively). Operational activities are not expected to require additional water use or generate additional wastewater from the Refinery or SRP. Therefore, no biological resources or water quality impacts to the Dominguez Channel are expected.

Response 6-19

The potential impacts of the proposed project on population and housing are addressed on pages 2-29 and 2-30 of the NOP/IS. See Responses 3-2, 3-3 and 4-1, for the potential impacts of the proposed project on residential and sensitive receptors in the vicinity of the Refinery/SRP.

Response 6-20

The potential impacts of the proposed project on fire services are addressed on page 2-31 of the NOP/IS. The proposed project is not expected to increase the need or demand for additional fire, police or hazmat services above current levels; therefore, no significant impacts to fire, police or hazmat services are expected.

Response 6-21

The potential noise impacts of the proposed project during construction activities are addressed on page 2-28 of the NOP/IS. Because of the attenuation of noise over distance, the noise impacts associated with construction activities are expected to be less than significant.

Response 6-22

The cumulative air quality impacts of the proposed project and other projects in the area are addressed in Chapter 5, Cumulative Impacts, Subsection 5.3. The cumulative air quality impacts were considered to be significant for NOx emissions during the construction phase. Cumulative air quality impacts during the operational phase of the

proposed project are not expected to be significant because the project will result in emission reductions of CO, NOx, SOx, PM10, PM2.5 and greenhouse gas emissions.

Response 6-23

Odor impacts can be reported to the SCAQMD Hotline at 1-800-CUT-SMOG. In addition, Tesoro maintains a 24-hour Community Hot Line and will respond to calls from community members. The Tesoro Community Hot Line number is 310-522-ODOR (6367).

Response 6-24

See Response 6-18 regarding impacts of the proposed project on biological resources.

Response 6-25

The potential for seismic activity is addressed in the NOP/IS (see page 2-16). The proposed project is not expected to result in impacts to any faults. The impacts of seismic activity on new structures are mitigated through compliance with the Uniform Building Code Zone 4 requirements. The local cities are responsible for assuring that the proposed project complies with the Uniform Building Code as part of the issuance of the building permits (City of Los Angeles for the Refinery and City of Carson for the SRP) and can conduct inspections to ensure compliance.

Response 6-26

The potential for dust emissions associated with construction activities are addressed in the EIR. Please see Subsection 4.2.2.1 – Construction Emission Impacts. Fugitive dust emissions are minimized by applying water as a dust suppressant during grading, trenching and earthmoving activities to comply with the requirements of SCAQMD Rule 403.

Response 6-27

Dust complaints may be reported to the SCAQMD Hotline at 1-800-CUT-SMOG. However, Tesoro maintains a 24-hour Community Hot Line and will respond to calls from community members. The Tesoro Community Hot Line number is 310-522-ODOR (6367).

Response 6-28

Construction activities are expected to be completed by a private company under Tesoro supervision. All equipment and materials will be transported and stored on the Refinery site. The SRP is accessed via Alameda Street. The Refinery is accessed from Pacific Coast Highway for most of the construction activities. The northern Refinery entrance on

Sepulveda is also expected to be used for construction activities in the northern portion of the Refinery (e.g., crude storage tank and coke handling facilities).

Response 6-29

Please see Response 4-1 regarding location of schools and sensitive receptors.

Response 6-30

The Refinery maintains an emergency response and evacuation plan. The proposed project is not expected to interfere with adopted emergency response plans or emergency evacuation plans. The proposed project will result in modifications to the existing Refinery. The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evaluation plan. Procedures for emergency response are provided to employees along with training guidelines and the use of personal protective equipment. All construction and operation personnel will be safety-trained. The proposed project is not expected to alter the route that employees would take to evacuate the site, as the evacuation routes generally direct employees outside of the main operating portions of the Refinery. The proposed project is not expected to impact any emergency response plans.

Response 6-31

As discussed in the NOP/IS (see age 2-31), fire protection services are supplemented by an on-site fire department. The proposed project will be constructed within the confines of the existing Refinery/SRP and involves the modification or replacement of existing equipment. The proposed project is not expected to increase the need or demand for fire services.

To respond to emergency situations, Tesoro maintains an on-site fire department. The Tesoro Refinery fire department adheres to National Fire Protection Association standards and is recognized as a professional functioning fire department by the California State Fire Marshal's office. The department is staffed with trained and certified fire fighters and emergency medical technicians. The Refinery fire department is capable of responding to petroleum and structure fires, hazardous materials releases, and confined-space rescues on average within three minutes. Due to the local proximity of the Refinery fire department, the response in containing and controlling fire situations is much more effective.

The on-site fire department holds regular training sessions and drills in conjunction with local fire departments. Also, the Refinery is active in the Community Awareness and Emergency Response (CAER) organization, where industry and local government agencies coordinate emergency response activities, and is a sponsor of the Community Alert Network (CAN) telephone call-out system.

The Tesoro fire department includes a full-time staff, with a trained staff on duty at the Refinery at all times. The Refinery is also served by the Cities of Carson and Los Angeles Fire Departments and cooperates in emergency response planning with industrial facilities in the community, such as the Tesoro Refinery.

The proposed project during both construction and operation will not substantially change the load on the Refinery's fire fighting and emergency response resources and would not be expected to create the need for additional fire protection services or resources by the Cities of Carson or Los Angeles.

Response 6-32

The proposed project is not expected to locate housing or other structures in a 100-year flood zone as indicated in the Initial Study. The 100-year flood hazard map is available through the Federal Emergency Management Agency and can be viewed at: http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=80949946&IFIT=1.

Response 6-33

Please see the NOP/IS (page 2-24) for a discussion of the surface water runoff. The Refinery only discharges stormwater runoff (which is tested and treated, if necessary) from areas outside of processing areas to the Dominguez Channel, so there are no "persistent discharges" to the Channel from Tesoro. Discharges only occur during periods of rain.

Response 6-34

Cumulative noise impacts are not expected to occur because the proposed project will be constructed within the confines of the existing Refinery/SRP and involves the modification or replacement of existing equipment. Following construction activities, no increase in noise impacts is expected. See Response 6-21 regarding construction noise impacts.

Response 6-35

See Response 4-1 regarding distances to residential areas.

Response 6-36

Tesoro has held meetings with various community groups in all parts of the Cities of Wilmington and Carson, including members of the Wilmington Chamber of Commerce to discuss the proposed project. An EIR scoping meeting was held on February 6, 2008 to obtain comments and questions about the scope of the EIR from the public. Tesoro representatives have met with the following: Tesoro Community Advisory Groups (02/06/08), Wilmington Coordinating Council (03/12/08), Mothers of Wilmington (03/17/08), Citizens for a Better Environment and Wilmington Coalition for a Safe

Environment (04/17/08), Joann Wysocki (05/23/08), representatives from Congresswoman Jane Harman's Office (01/18/08), representatives from Senator Jenny Oropeza's office (01/18/08), representatives from Councilwoman Janice Hahn's office (1/22/08), Wilmington Neighborhood Council (01/28/08), Long Beach Unified School District (01/24/08), and representatives of Supervisor Don Knabe's office (02/01/08).

Response 6-37

The impacts of the proposed project on public services are addressed in the NOP/IS (see pages 2-30 and 2-31). As discussed, the proposed project is not expected to increase the need or demand for additional public services or change the authority of any public agencies. The person that would be contacted at agencies can change because of changes in personnel, but no change in personnel will occur due to the proposed project.

Response 6-38

See Responses 2-7 and 2-8 regarding the potential for contaminated sites.

Response 6-39

See Response 2-6 regarding encountering potentially hazardous materials.

Response 6-40

The transportation and traffic impacts are addressed in the EIR Chapter 4, Subsection 4.4 – Transportation and Traffic. Peak construction activities are expected to require a maximum of 600 workers and generate a maximum of 600 vehicles per day.

Response 6-41

As discussed in the EIR, Section 4.4.2 – Environmental Impacts, all construction workers are expected to park on-site.

Response 6-42

Please see the EIR, Figure 2-5 for the estimated construction schedule for each portion of the proposed project. Construction activities associated with a number of different activities are expected to overlap and are analyzed in the EIR.

Response 6-43

As discussed in Response 6-41 and Chapter 2.7 of the EIR, peak construction activities are expected to require a maximum of 600 workers and last about ten hours per day, Monday through Friday. During Refinery turnaround periods, two work shifts are expected to be required Monday through Friday.

Response 6-44

The aesthetic impacts associated with the proposed project are addressed in the NOP/IS (see pages 2-4 and 2-5). All of the modifications and new equipment installations at the Refinery/SRP are expected to be about the same size profile as existing equipment. Installation of new or replacement of existing equipment at the facility would not appreciably change the visual profile of the facility. Existing columns and structures range from 100 to 200 feet in height. The proposed project will not change the overall height profile of the facility. The new coke barn is expected to be about the same height as the existing coke barn.

Response 6-45

As discussed in the EIR, Section 4.4.2 – Environmental Impacts, all construction workers are expected to park on-site.

Response 6-46

The cumulative impacts of the proposed project and other proposed projects in the Wilmington/Carson areas are discussed and analyzed in Chapter 5 - Cumulative Impacts of the EIR.

Response 6-47

Per this request, a copy of the EIR will be placed in the Wilmington and Carson Public Libraries and sent to the commentator.