SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

INITIAL STUDY FOR THE EXXONMOBIL TORRANCE REFINERY RULE 1105.1 COMPLIANCE PROJECT

SCH No. TBD

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CHAPTER 1

PROJECT DESCRIPTION

Introduction Agency Authority Project Background Project Location Project Description Construction Schedule Project Alternatives

INTRODUCTION

On November 7, 2003, the South Coast Air Quality Management District (SCAQMD) adopted Rule 1105.1 - Reduction of PM10¹ and Ammonia Emissions from Fluid Catalytic Cracking Units, and certified the Final Environmental Assessment (EA) for the rule. The 2003 Final EA identified six refineries within the South Coast Air Basin (Basin) that operate fluidized catalytic cracking units (FCCUs) that would be subject to the requirements of Rule 1105.1; however, one of the six refineries was currently operating in compliance with the emission standards outlined in the rule. As a result, only five refineries in the Basin would be required to comply with the emission standards in Rule 1105.1. The ExxonMobil Torrance Refinery is one of the five refineries required to meet the emission limits of Rule 1105.1.

The ExxonMobil Oil Corporation proposes to install new pollution control equipment (two new electrostatic precipitators) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs at its Torrance refinery. These proposed modifications are intended to comply with the requirements of SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions.

This Initial Study (IS) has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) (California Public Resources Code §21000 et seq.) to evaluate the potential environmental impacts associated with the ExxonMobil Rule 1105.1 Compliance Project. More specifically, this IS has been prepared in accordance with CEQA Guidelines §15189 - Compliance with Performance Standard or Treatment Requirement Rule or Regulation, which "applies to projects consisting solely of compliance with a performance standard or treatment requirement which was the subject of a previous environmental analysis as described in §15187."

Throughout this document, references to "proposed project" or "ExxonMobil Rule 1105.1 Compliance Project" are one and the same and used interchangeably.

AGENCY AUTHORITY

The ExxonMobil Rule 1105.1 Compliance Project is a "project" as defined by California Public Resources Code §21065 and CEQA Guidelines §15378. CEQA requires that potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented if feasible. An environmental impact is defined as an impact to the physical conditions that exist within the area which would be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic significance.

The lead agency for a proposed project is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant adverse effect upon the environment (Public Resources Code §21067). Since the SCAQMD has the greatest responsibility for supervising or approving the ExxonMobil Rule 1105.1 Compliance Project as a whole, it was determined that the SCAQMD would be the most appropriate public agency to act as lead agency for the proposed project (CEQA Guidelines §15051(b)).

¹ PM10 is particulate matter less than 10 microns in diameter.

To fulfill the purpose and intent of CEQA for the ExxonMobil Rule 1105.1 Compliance Project, the SCAQMD is relying primarily on the Final EA prepared for Rule 1105.1 that was certified in November 2003 by the SCAQMD Governing Board (referred to hereafter as the SCAQMD 2003 Final EA). This IS has been prepared to address potential adverse environmental impacts associated with the compliance of Rule 1105.1 at the ExxonMobil Torrance Refinery that were not addressed in the SCAQMD Final EA.

Subsequent to the adoption of Rule 1105.1 and certification of the Final EA, the Western States Petroleum Association (WSPA) filed a lawsuit against the SCAQMD challenging the certification of the Final EA and approval of Rule 1105.1 (WSPA vs. SCAQMD et al, Superior Court of California, County of Los Angeles, Case No. BS087190). The lawsuit asserted, among other things, that emission reductions to be achieved from implementing Rule 1105.1 were technically not feasible, implementation of Rule 1105.1 would not be cost effective, and that the CEQA document failed to consider all environmental impacts of available emissions control technologies to comply with the emission limits. The judge found that all the contentions made by WSPA were without merit. WSPA appealed this judgment (WSPA vs. SCAQMD et al., Court of Appeal of the State of California, Second Appellate District, Division Seven, Case No. B181303), and the court again concluded that WSPA's arguments were without merit. Further, the court concluded that the SCAQMD met its obligation under CEQA to conduct an environmental assessment of Rule 1105.1. Therefore, in accordance with California Public Resources Code §21167.3(b), the Final EA was determined to meet all relevant requirements of CEQA.

PROJECT BACKGROUND

California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written documentation in lieu of an environmental impact report once the Secretary of the Resources Agency has certified the regulatory program. The SCAQMD's regulatory program was certified by the Secretary of Resources Agency on March 1, 1989 and is SCAQMD Rule 110.

The SCAQMD 2003 Final EA was prepared pursuant to Rule 110, evaluating the potential adverse impacts associated with the adoption of Rule 1105.1. Since Rule 1105.1 required the installation of air pollution control equipment and established performance standards, the SCAQMD 2003 Final EA was also prepared pursuant to CEQA Guidelines §15187. CEQA Guidelines §15189(a) allows the lead agency to use, to the greatest extent feasible, the previous environmental analysis prepared pursuant to CEQA Guidelines §15187 when preparing an environmental document for subsequent [1105.1] Compliance Projects. In this case, the SCAQMD 2003 Final EA contained the previous environmental analysis of potential adverse impacts associated with the implementation of Rule 1105.1.

The SCAQMD Final EA for Rule 1105.1, certified on November 7, 2003, complied with the requirements of CEQA Guidelines §15187 and included an analysis of the potential impacts associated with complying with the proposed rule. The Final EA assumed that all of the existing ESPs at five of the six refineries would either be replaced with new models or rebuilt by December 31, 2006, or by December 31, 2008, if an extension was granted.

Under Rule 1105.1, the PM10 and ammonia emissions are expected to be reduced with the installation of new air pollution control equipment (i.e., two new ESPs), thereby creating a direct operational air quality benefit. ESPs are electric devices that collect particulates emitted from the FCCU exhaust and do not produce operational emissions or require any changes to the current setting that would produce operational emissions.

Therefore, the SCAQMD 2003 Final EA concluded that Rule 1105.1 would not create significant adverse operational air quality impacts because the overall objective of the rule was to reduce emissions, approximately "0.5 ton per day of filterable PM10 and two tons per day of total PM10 (which results in approximately 1.5 tons per day of condensable PM10 or 1.5 tons per day of ammonia) by limiting the amount of ammonia slip to 10 ppmv as corrected for three percent oxygen." (2003 Final EA, page 1-7) The Final EA concluded, however, that Rule 1105.1 was expected to create significant adverse construction-related air quality impacts.

The SCAQMD was the lead agency responsible for preparing the Final EA for Rule 1105.1 and, as the lead agency for the ExxonMobil Rule 1105.1 Compliance Project, is the public agency with the primary responsibility for evaluating potential environmental impacts and approving the proposed project. Based on the evaluation presented in this document, the SCAQMD has concluded that an EIR is the appropriate CEQA document for evaluating the proposed modifications at the ExxonMobil Torrance Refinery.

The SCAQMD 2003 Final EA evaluated construction impacts based on the assumption that none of the refineries would begin their modifications prior to 2004. Further, to derive "worst-case" peak construction-related emissions, construction activities were expected to occur over a 48 month period. For a variety of reasons, many of the refineries in the Basin did not begin construction until 2006. Upon adoption of Rule 1105.1 ExxonMobil began a technology assessment and preliminary design to determine which type of ESP would meet not only the requirements of Rule 1105.1, but the needs of the Torrance refinery. In addition, the proposed installation of new ESP equipment on the FCCU was planned to occur at the same time as the already scheduled FCCU turnaround. Due to technology selection and turnaround scheduling, there were delays in initiating both the CEQA and air permitting processes with the SCAQMD. This delayed the expected start date for construction activities related to installing air pollution control equipment as part of the ExxonMobil Rule 1105.1 Compliance Project. As a result of these construction delays, the proposed project is now expected to overlap with Rule 1105.1 compliance projects at other affected refineries in a manner not anticipated when the SCAQMD 2003 Final EA for Rule 1105.1 was prepared.

The analysis in this IS relies upon the environmental analysis in the SCAQMD 2003 Final EA for Rule 1105.1. The analysis of the environmental topics in Chapter 2 of this IS concludes that the ExxonMobil Rule 1105.1 Compliance Project will not create any new significant adverse project-specific effects on the environment that were not already evaluated and presented in the SCAQMD 2003 Final EA. The project-specific construction and operational air quality emissions will still fall within the scope of the adverse impacts disclosed in the SCAQMD Final EA for Rule 1105.1. There is however, a potential for significant regional adverse cumulative air quality impacts due to the extent of concurrent Rule 1105.1 construction activities that are now expected to be greater than originally estimated in the SCAQMD 2003 Final EA. Based on the evaluation in this IS, only cumulative air quality is expected to be significant.

PROJECT LOCATION

The proposed project affects operations at the ExxonMobil Refinery located at 3700 W. 190th Street, in the City of Torrance, County of Los Angeles. The Torrance Refinery was built in 1929, covers approximately 750 acres, and processes an average of 155,000 barrels of crude oil per day. Figure 1-1 illustrates the regional setting, and Figure 1-2 illustrates the site location of the refinery.

The Torrance Refinery occupies an irregularly shaped parcel of land, between 190th Street to the north, Van Ness Avenue to the east, railroad tracks and Del Amo Boulevard to the south, and Prairie Avenue to the west. A small portion of the refinery is located on the west side of Prairie Avenue. All of the activities associated with the proposed project will occur within the boundaries of the existing refinery.

The closest residential area is across 190th Street, to the north. Columbia Regional Park is located immediately across from the refinery in the northwest corner. Other land uses also to the north, east, west, and south include, industrial and commercial facilities, the BNSF railroad line, and a business park. These areas surrounding the refinery can be characterized as a blend of heavy and light industrial, commercial, medium and high-density residential, and industrial/manufacturing. The refinery property is zoned by the City of Torrance as Heavy Manufacturing (M-2). The proposed project will not require any modifications to the refinery's conditional use permit.

PROJECT DESCRIPTION

ExxonMobil Oil Corporation proposes modifications to its Torrance Refinery to comply with new PM10 and ammonia emission limits set by SCAQMD Rule 1105.1. Figure 1-3 shows the location of the existing FCCU and the new ESPs within the refinery. The proposed project includes the installation of new air pollution control equipment (two new ESPs) downstream of the two existing ESPs to control the PM10 emissions generated from the existing FCCU's regenerator, the building of an electrical switch house (20 feet x 10 feet) with associated underground electrical lines, the removal of a small boiler (7 feet x 10 feet) which has been out of service, and the relocation of a sewer line. The proposed project will also include a new pneumatic conveyance system which will automatically collect the particulates from the new ESPs and transfer them to a new common storage silo (7 feet in diameter and 24 feet tangent-totangent). Once the silo is full, the stored material is shipped offsite to California Portland Cement and used [recycled] in their cement kilns as a substitute for alumina and silica in the kiln feed.

The proposed project will also include new anhydrous ammonia injection piping (aboveground) from the existing storage tanks to the new facilities. A new duct bypassing the existing SCR, waste heat boiler and ID fan equipment is also being proposed.







The applications submitted for permits to construct also include a series of ESP maintenance options for consideration. These include:

- Operate one train of the new ESPs during maintenance.
- Operate the existing ESPs as needed to maintain the total power input of the new ESPs.
- Operate the CO boiler in waste heat mode during maintenance of the new ESPs.

The purpose of these maintenance options is to allow for optimal operational flexibility. The new ESP facilities will consist of two parallel ESP trains that are designed to comply with Rule 1105.1 at the maximum flue gas rate. The new ESP facilities will include double-bladed guillotine valves on the inlet and outlet of each of the ESP boxes to allow one ESP train to be isolated in the event that on-line maintenance of the other ESP train is required.

ExxonMobil Oil Corporation proposes to maintain the operation of the existing ESPs as needed during the maintenance of the new ESPs. In addition, it is proposed that the existing ESPs be operated as needed to maintain the total input power levels of the new ESPs. This could occur during normal operating periods (i.e., if the new ESPs were to malfunction) or during maintenance of the new ESPs. Once the proposed project is complete, the existing ESPs will be turned off (i.e., electrically down), with the exception of the mechanical rappers, unless needed as indicated above.

Technology Overview

The following is a brief overview of fluidized catalytic cracking, the formation of particulates and ammonia slip, and electrostatic precipitators. This discussion is an excerpt from the comprehensive Technology Review in the SCAQMD 2003 Final EA (pages 2-4 through 2-6).

Fluidized Catalytic Cracking

Fluidized catalytic cracking is a refinery process used for the purpose of converting heavy oils into more valuable, marketable petroleum-based products. A fluidized catalytic cracking unit or FCCU is the equipment that "cracks" the complex molecular structure of various hydrocarbons that exist in heavy oils, with the assistance of a catalyst, into gasoline and lighter petroleum products. Each FCCU consists of three main components: a reaction chamber, a catalyst regenerator and a fractionator.

Formation of Particulates and Ammonia Slip

During the regeneration cycle in the FCCU, large quantities of primary particulate emissions, comprised mostly of catalyst fines, are found in the flue gas. As in the case with catalyst, primary particulate emissions are solid or liquid particles emitted directly from sources. However, primary particulates can also be gaseous precursor compounds that don't change their chemical composition but physically convert to a solid or liquid particulate shortly after the exhaust gas is released into the atmosphere. Primary particulates from FCCU regenerators mostly consist of sulfates (referred to as 'primary sulfates'), nitrates (referred to as 'primary nitrates') and other organic particulates. The gaseous precursor compounds that form primary sulfates are sulfur dioxide, sulfur trioxide, and ammonia while the gaseous precursors that form nitrates are nitrogen oxide and ammonia. Primary sulfates are formed in the flue gas as a combination of sulfuric acid, ammonium bisulfate, and ammonium sulfate. Primary nitrates are formed in the flue gas from the nitrogen dioxide reacting with water vapor to form nitric acid, which eventually is neutralized by ammonia to form ammonium nitrate.

FCCUs are also considered sources of secondary particulate emissions. Secondary particulate emissions are formed in the atmosphere as a result of one or several chemical reactions that cause physical transformations of their gaseous precursors. In contrast to primary condensable particulates, which are formed within a few seconds after the exit gas plume leaves the stack, secondary particulates require several minutes, hours, or days to form in the atmosphere.

Electrostatic Precipitators (ESPs)

An ESP is a device that collects particles from the gas stream by: 1) establishing an electric field by applying a high voltage to the discharge electrodes; 2) ionizing the gas stream as it passes through the device; 3) charging, migrating, and collecting the particles on opposite-charged surfaces; and, 4) removing particles from the collection electrodes. In general, the control efficiency of an ESP is limited by the strength, or magnitude, of the electric field it can generate, which in turn is dependent upon the voltage applied to the discharge electrodes.

CONSTRUCTION SCHEDULE

The construction schedule for the ExxonMobil Rule 1105.1 Compliance Project is currently estimated to be 24 months beginning April 1, 2007 and ending March 31, 2009. There will be four phases: Site Preparation/Excavation; Erection and Installation; QA/QC Punchout; and FCCU Turnaround. The construction workday is planned to be 20 hours a day (two 10-hour shifts) in phases 1, 3 and 4; and 10 hours a day in Phase 2. Construction will take place five days a week in Phases 1, 2 and 3; and 7 days a week in Phase 4. A detailed construction analysis will be included in the Draft EIR.

PROJECT ALTERNATIVES

Pursuant to CEQA Guidelines §15126.6, the Draft EIR will identify and compare the relative merits of a range of reasonable alternatives to the proposed project. The project alternatives will consider other possible means of feasibly attaining the objectives of the proposed project that would avoid or substantially lessen significant effects of the proposed project. The alternatives will be developed by varying basic components of the proposed project. The "No Project" alternative will also be evaluated.

CHAPTER 2

ENVIRONMENTAL CHECKLIST

Introduction General Information Potentially Significant Impact Areas Determination Environmental Checklist and Discussion

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 associated with the implementation of the ExxonMobil Rule 1105.1 Compliance Project.

GENERAL INFORMATION

Project Title:	ExxonMobil Rule 1105.1 Compliance Project
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive, Diamond Bar, CA 91765
CEQA Contact Person and Phone Number:	James Koizumi (909) 396-3234
Project Sponsor's Name:	ExxonMobil Oil Corporation
Project Sponsor's Address:	3700 W. 190 th Street, Torrance, CA 90509
Project Sponsor's Contact Person and Phone Number:	Meena Nainan (310) 212-4673
General Plan Designation:	Heavy Manufacturing
Zoning:	M2
Description of Project:	ExxonMobil Oil Corporation proposes modifications to its Torrance Refinery to comply with new PM10 and ammonia emission limits set by SCAQMD Rule 1105.1. Figure 1-3 shows the location of the existing FCCU and the new ESPs within the refinery. The proposed project includes the installation of new air pollution control equipment (two new ESPs) downstream of the two existing ESPs to control the PM10 emissions generated from the existing FCCU's regenerator, the building of an electrical switch house (20 feet x 10 feet) with associated underground electrical lines, the removal of a small boiler (7 feet x 10 feet) which has been out of service, and the relocation of a sewer line. The proposed project will also include a new pneumatic conveyance system which will automatically collect the particulates from the new ESPs and transfer them to a new common storage silo (7 feet in diameter and 24 feet tangent-to- tangent). Once the silo is full, the stored is shipped offsite to

The proposed project will also include new anhydrous ammonia injection piping (aboveground) from the existing storage tanks to the new facilities. A new duct bypassing the existing SCR, waste heat boiler and ID fan equipment is also being proposed.

California Portland Cement and used [recycled] in their cement kilns

as a substitute for alumina and silica in the kiln feed.

(continued):	series of ESP maintenance options for consideration. These include:		
	 Operate one train of the new ESPs during maintenance. Operate the existing ESPs as needed to maintain the total power input of the new ESPs. Operate the CO boiler in waste heat mode during maintenance of the new ESPs. 		
	The purpose of these maintenance options is to allow for optimal operational flexibility. The new ESP facilities will consist of two parallel ESP trains that are designed to comply with Rule 1105.1 at the maximum flue gas rate. The new ESP facilities will include double-bladed guillotine valves on the inlet and outlet of each of the ESP boxes to allow one ESP train to be isolated in the event that on-line maintenance of the other ESP train is required.		
	ExxonMobil Oil Corporation proposes to maintain the operation of the existing ESPs as needed during the maintenance of the new ESPs. In addition, it is proposed that the existing ESPs be operated as needed to maintain the total input power levels of the new ESPs. This could occur during normal operating periods (i.e., if the new ESPs were to malfunction) or during maintenance of the new ESPs. Once the proposed project is complete, the existing ESPs will be turned off (i.e., electrically down), with the exception of the mechanical rappers, unless needed as indicated above.		
Surrounding Land Uses and Setting:	Industrial, commercial, residential, and manufacturing.		
Other Public Agencies Whose Approval is Required:	City of Torrance		

The applications submitted for permits to construct also include a

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 " \checkmark " 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.

- \Box Aesthetics
- Biological Resources
- □ Geology/Soils

Description of Project

- □ Land Use/Planning
- □ Population/Housing
- □ Solid/Hazardous Waste
- Agricultural Resources
- Cultural Resources
 Hazards & Hazardou
- Hazards & Hazardous
 Materials
- □ Mineral Resources
- Public Services
 Transportation/
 - Transportation/ Traffic

- \square Air Quality
- □ Energy
 - Hydrology/Water Quality
- □ Noise

- □ Recreation
- ☑ 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: September 18, 2006

Steve Smith Signature:

Steve Smith, Ph.D. Program Supervisor, CEQA Planning, Rule Development and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

		Potentially Significant Impact	Less Than Significant Impact	No Impact
I.	AESTHETICS. Would the project:			
a)	Have a substantial adverse effect on a scenic vista?			V
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?			V
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			

AESTHETICS DISCUSSION:

Significance Criteria

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

- The project will block views from a scenic highway or corridor;
- The project will adversely affect the visual continuity of the surrounding area; or
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

I. a) - d) The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (two new ESPs) downstream of the two existing ESPs to control the PM10 emissions generated from the existing FCCU's regenerator, within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions. The proposed project will not require any modifications to the existing refinery which would obstruct scenic resources or degrade the existing visual character of the site including, but not limited to, trees, rock outcroppings, or historic buildings. The refinery itself is devoid of scenic vistas and is located within an area designated as Heavy Manufacturing. All proposed site modifications will be conducted within the boundary of the existing refinery. The visual character of the area is expected to remain the same and would not be degraded due to any project activities. Any new lighting that may be attached to the new ESPs for safety and security purposes will be consistent with the existing lighting on other refinery structures (e.g., in intensity and type) and would not be expected to create a new source of light that would affect day or nighttime views. The ESP equipment does not include any surface material that would create a new source of glare. The visual character of the area surrounding the refinery is expected to remain the same and would not be degraded due to any project activities.

As mentioned in Chapter 1, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative aesthetic impacts during construction, as any effects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in cumulative aesthetic impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant aesthetics impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD 2003 Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to aesthetics are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse aesthetic impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

II.	AGRICULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less Than Significant Impact	No Impact
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?			V
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?			Ø

AGRICULTURAL RESOURCES DISCUSSION:

Significance Criteria

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

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts;
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use; or
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural uses.

II. a) - c) The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (two new ESPs) downstream of the two existing ESPs to control the PM10 emissions generated from the existing FCCU's regenerator, within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions. The Torrance refinery is located within an urbanized setting devoid of agricultural resources. The proposed project will not require any modifications to the refinery that would convert any classification of farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract. All proposed site modifications take place within the boundary of the existing refinery, which is designated by the city of Torrance General Plan as Heavy Manufacturing and zoned M-2.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative agricultural resource impacts during construction, as any effects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in agricultural resource impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant agricultural resource impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD 2003 Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to agricultural resources are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant agricultural resource impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

ш	AID OUALITY Would the project	Potentially Significant Impact	Less Than Significant Impact	No Impact
111.	AIR QUALITY. Would the project:			
a)	Conflict with or obstruct implementation of the applicable air quality plan?			Ø
b)	Violate any air quality standard or contribute to an existing or projected air quality violation?		V	
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)?	V		
d)	Expose sensitive receptors to substantial pollutant concentrations?			
e)	Create objectionable odors affecting a substantial number of people?			Ø
f)	Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?			

AIR QUALITY DISCUSSION

It is the responsibility of the SCAQMD to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and by the federal government for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), PM10, sulfur dioxide (SO₂) and lead. New standards for fine particulates, PM_{2.5}, have also been adopted recently. Further, California has additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility. Attainment of the state and federal ambient air quality standards protect sensitive receptors and the public in general from the adverse effects of criteria pollutants that are known to have adverse human health effects. These standards are established to protect sensitive receptors within a margin of safety from adverse health impacts due to exposure to air pollution.

Significance Criteria

To determine whether or not air quality impacts from implementing the proposed project are significant, potential impacts will be evaluated and compared to the criteria listed in Table 2-1. If impacts equal or exceed any of the criteria, they will be considered significant.

Mass Daily Thresholds					
Pollutant	Construction	Operation			
NO _x	100 lbs/day	55 lbs/day			
VOC	75 lbs/day	55 lbs/day			
PM10	150 lbs/day	150 lbs/day			
SOx	150 lbs/day	150 lbs/day			
СО	550 lbs/day	550 lbs/day			
Lead	3 lbs/day	3 lbs/day			
Toxic	Air Contaminants (TACs) and O	dor Thresholds			
TACs (including carcinogens	Maximum Incrementa	1 Cancer Risk \geq 10 in 1 million			
and non-carcinogens)	Hazard Index >	1.0 (project increment)			
	Hazard Index	$x \ge 3.0$ (facility-wide)			
Odor	Project crea	tes an odor nuisance			
	pursuant to SCAQMD Rule 402				
Α	mbient Air Quality for Criteria H	Pollutants ^(a)			
NO ₂	In attainment; significant if proje	ect causes or contributes to an exceedance			
	of either of the following standards:				
1-hour average	0.25 parts per million (state)				
annual average	0.053 parts	per million (federal)			
PM10					
24-hour average	24-hour average $10.4 \mu \text{g/m}^3$ (recommended for construction) ^(b)				
	2.5 μg	/m ³ (operation)			
annual geometric average	-	$1.0 \ \mu g/m^{3}$			
annual arithmetic mean		20 μg/m ³			
Sulfate					
24-hour average		$25 \ \mu g/m^3$			
СО	In attainment; significant if proje	ect causes or contributes to an exceedance			
	of either of th	e following standards:			
1-hour average	20 parts	per million (state)			
8-hour average	9.0 parts per	million (state/federal)			
(a) Ambient air quality threshol	ds for criteria pollutants based on S	CAQMD Rule 1303, Table A-2 unless			
otherwise stated.	*				
(b) Ambient air quality threshol	d based on SCAQMD Rule 403.				
$\mu g/m^3 = microgram per cubic mo$	$\mu g/m^3 = microgram per cubic meter: lbs/day = pounds per day: > = greater than or equal to$				

TABLE 2-1SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

II. a) and f) The ExxonMobil Rule 1105.1 Compliance Project will not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMP) because the proposed project is being initiated in accordance with the district's 2003 AQMP, as Control Measure CMB-09. Further, the ExxonMobil Rule 1105.1 Compliance Project will not diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutants because the purpose of the proposed project is to comply with an air quality rule to reduce PM10 and ammonia emissions. As a result, there are no AQMP or compliance-related project-specific or cumulative impacts, and this issue will not be evaluated further in the Draft EIR.

II. b) and c) A preliminary analysis of air quality impacts has revealed that potential operational and construction related project specific impacts are within the limits outlined in the SCAQMD 2003 Final EA for Rule 1105.1, which analyzed impacts from all affected refineries in the Basin. There is however, a potential for significant adverse regional cumulative air quality impacts due to the extent of concurrent Rule 1105.1 construction activities with other affected refineries. As a result, the air quality impacts from the proposed project will be quantified and presented in the Draft EIR. The Draft EIR will include a focused analysis of project-specific air quality emissions and regional cumulative air quality impacts. To the greatest extent feasible, the environmental analysis and results in the SCAQMD Final EA will be used for the analysis in the EIR pursuant to CEQA Guidelines §§15189(a) and 15187. Additional analysis will be provided in the Draft EIR as needed, using elements of the proposed project specific to the Torrance refinery.

II. d) The overall intent of the proposed project is to comply with Rule 1105.1 to reduce PM10 and ammonia emissions from the FCCU at the ExxonMobil Torrance refinery. The installation of two new ESPs will accomplish this intention and meet the emission limits in the rule. There are no aspects of the proposed project that increase pollutant concentrations over existing conditions, or expose sensitive receptors to substantial pollutant concentrations. As a result, there are no project-specific or cumulative impacts associated with exposure of sensitive receptors to substantial pollutant concentrations further in the Draft EIR.

II. e) The proposed project will not create objectionable odors affecting a substantial number of people. The ExxonMobil Rule 1105.1 Compliance Project involves the installation of two new ESPs, as air pollution control equipment, to reduce PM10 and ammonia emissions from the FCCU at the Torrance refinery. In order to comply with Rule 1105.1 and the new 10 ppmv ammonia slip standard, the use of anhydrous ammonia will be reduced as part of the modifications at the FCCU. While the anhydrous ammonia is contained within a pressurized aboveground storage tank which would not emit odors, reducing the volume of material used will further lessen the potential of any objectionable odor affecting a substantial number of people. As a result, there are no project-specific or cumulative odor impacts, and this issue will not be evaluated further in the Draft EIR.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
IV.	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?			J

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?		Ø
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?		Ŋ
e)	Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		V
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.?		Ø

BIOLOGICAL RESOURCES DISCUSSION

Significance Criteria

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

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies;
- The project interferes substantially with the movement of any resident or migratory wildlife species; or
- The project adversely affects aquatic communities through construction or operation of the project.

IV. a), b), c) & d) Implementing the proposed project will not have a direct or indirect impact on candidate, sensitive, or special status species, or the habitat on which they rely. The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (two new ESPs) downstream of the two existing ESPs to control the PM10 emissions generated from the existing FCCU's regenerator, within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and

ammonia emissions. The Torrance refinery is located within a designated manufacturing area devoid of biological resources. All project-related modifications of equipment or processes will be conducted within the boundary of this existing facility. Further, these areas do not typically support riparian habitat, federally protected wetlands as defined by §404 of the Clean Water Act, or migratory corridors. Additionally, special status plants, animals, or natural communities 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 are not expected to be found either within the boundaries of the refinery or in close proximity to the refinery because the refinery is designated heavy manufacturing and adjacent land uses are heavy and light industrial, commercial, and residential.

IV. e) & f) The proposed project does not include any components that would conflict with local policies or ordinances protecting biological resources, or conflict with the provisions of any adopted local, regional, or state conservation plans because it will only affect specific equipment within the existing refinery located in a designated manufacturing area. Effects on biological resources outside the boundary of the refinery are not anticipated. Further, the proposed project will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, as the proposed project will not require any land use changes that would conflict with any local policies protecting biological resources or habitat conservation plans because the refinery property has no such plans overlapping or adjacent to the site.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative biological resource impacts during construction, as any effects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in biological resource impacts from all Rule 1105.1 compliance projects. Further, SCAQMD staff believes that other affected refineries are also located in developed areas that do not have significant biological resources onsite or in the vicinity of the refineries.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant biological resource impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to biological resources are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse biological resource impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

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

CULTURAL RESOURCES DISCUSSION:

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group;
- Unique paleontological resources are present that could be disturbed by construction of the proposed project; or
- The project would disturb human remains.

V. a) - d) The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions.

As part of the Final EIR evaluation for the Mobil CARB Phase 3 Reformulated Gasoline Project (SCH No. 2000081105) dated October 2001, a Phase I archaeological investigation of the Torrance refinery was conducted by Conejo Archaeological Consultants and presented in a report dated December 13, 2000. The report concluded that no archaeological sites, no sacred [Native American] lands and no cultural resources are within or adjacent to the refinery (within a one-quarter mile radius). As a result, no impacts to historical, archaeological or paleontological resources (as defined in §15064.5) will occur as a result of the implementation of the proposed project. Further, the refinery is located within a designated heavy manufacturing area and all site modifications associated with the proposed project will occur within the boundary of the

refinery, which has been previously disturbed and predominantly paved or covered with gravel. In addition, no disturbance of any human remains, including those interred outside formal cemeteries, is expected to occur during implementation of the ExxonMobil Rule 1105.1 Compliance Project.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative cultural resource impacts during construction, as any affects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in cultural resource impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant cultural resource impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to cultural resources are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse cultural resource impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

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

ENERGY DISCUSSION:

Significance Criteria

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

- The proposed project conflicts with adopted energy conservation plans or standards;
- The proposed project results in substantial depletion of existing energy resource supplies;
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities; or
- The proposed project uses non-renewable resources in a wasteful and/or inefficient manner.

VI. a) & e) The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (two new ESPs) downstream of the two existing ESPs to control the PM10 emissions generated from the existing FCCU's regenerator, within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions.

The proposed project does not require any action that would conflict with an adopted energy conservation plan or violate any energy conservation standard. Since the proposed project affects an existing refinery, an existing facility would be expected to comply with existing energy conservation plans and standards as a business strategy to minimize operating costs.

VI. b), c) & d) The proposed project is not expected to create any significant adverse effects on peak or base period demands for electricity or other forms of energy and is not expected to affect the refinery's ability to comply with existing energy standards.

The ExxonMobil Rule 1105.1 Compliance Project requires the construction of a small electrical switch house in close proximity to the existing FCCU to support the new ESP units. Two SCE electrical substations are located within the fence line of the ExxonMobil refinery. Several feeder lines extend from these substations throughout the refinery to electrical switch houses. These switch houses are small buildings (approximately 20 feet x 30 feet) which house the switchgears and motor control center to support individual process units within the refinery. The motor control center includes individual breakers that feed electric supplies. Each switch house includes a transformer for power. It is standard practice to build new switch houses to support refinery modifications. In these instances, the project team coordinates with SCE engineering personnel to determine whether the power capacity at the main substation within the refinery fence line will be exceeded with the addition of the new switch house. Discussions with SCE have concluded that the refinery substations have the capacity within the existing transformers to accommodate the additional switch house. As a result, the proposed project will not result in the need for a new or substantially altered power system; create any significant effects on local or regional electricity or on requirements for additional electricity; or create any significant effect on peak and base period demands for electricity.

It is not expected that the power to support the new air pollution control equipment (i.e., two new ESPs) will have a significant adverse impact on statewide, regional, or even local energy resources. ExxonMobil Oil Corporation proposes to maintain the operation of the existing ESPs, as needed during the maintenance of the new ESPs. In addition, it is proposed that the existing ESPs be operated as needed to maintain the total input power levels of the new ESPs. This could

occur during normal operating periods (i.e., if the new ESPs were to malfunction) or during maintenance of the new ESPs. Once the proposed project has been completed, the existing ESPs will be turned off (i.e., electrically down), with the exception of the mechanical rappers, unless needed as indicated above. The existing ESPs currently use .6 megawatts of energy, assuming a power factor of 0.76 (the existing ESPs are permitted for 440 kilovolt amperes). The new ESPs are expected to use 2.2 megawatts of energy. As shown in Table 2-2, even under a "worst-case" scenario (i.e., operating all four ESPs concurrently), it is not expected that the proposed project will exceed the SCAQMD's energy threshold for electricity.

TABLE 2-2PROJECTED OPERATIONAL ENERGY USAGE

Operational	Energy	Electricity	Percent of	Significant?
Activity	Usage	Supply	Energy Supply	(Yes/No)
Two existing ESPs	0.6 megawatt	8,115 megawatts	0.01 %	No
		(instantaneous)		
Two new ESPs	2.2 megawatts	8,115 megawatts	0.03 %	No
		(instantaneous)		
Total both existing and new ESPs	2.8 megawatts	8,115 megawatts	0.04 %	No
		(instantaneous)		

Notes:

(1) Electricity supply based on 2000 California Energy Commission projections.

(2) The energy usage for the two new ESPs is a preliminary value which may be subject to change upon final approval of design.

(3) The SCAQMD significance threshold for electricity is 1% of supply.

The ExxonMobil Rule 1105.1 Compliance Project itself will not use natural gas and construction activities are not expected to involve the use of equipment fueled by natural gas. Therefore, the proposed project is not expected to result in the need for a new or substantially altered natural gas utility system; create any significant effects on local or regional natural gas supplies or on requirements for additional natural gas; or create any significant effect on peak and base period demands for natural gas.

Diesel and gasoline fuel will be consumed in construction equipment, by workers on-site during construction, by workers during commute trips and in trucks used for deliveries of equipment, materials and supplies. According to the California Energy Commission's report entitled *Transportation Fuels, Technologies, and Infrastructure Assessment Report* (dated December 2003), the on-road gasoline demand is expected to increase from 15 billion gallons in 2002 to 17.3 billion gallons in 2010 and to 19.8 billion gallons by 2023. Diesel demand is projected to increase from 2.7 billion gallons in 2002 to 3.3 billion gallons in 2010 and to 4.0 billion gallons by 2023. The ExxonMobil Rule 1105.1 Compliance Project is estimated to use amounts well below the limits of the SCAQMD's energy threshold, which is one percent of the supply for both gasoline and diesel. These results confirm that energy impacts during construction of the proposed project will not be significant.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative energy impacts during construction, as any effects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in energy impacts from all Rule 1105.1 compliance projects. Further, ExxonMobil derives its energy

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needs from a SCE sub-station specifically built to accommodate the electrical demands of the Torrance refinery and does not either contribute to other facilities, or rely upon other facilities in the area.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that potential significant energy impacts were expected from the implementation of Rule 1105.1 and that they would be analyzed further in the EA. The SCAQMD Final EA subsequently concluded that energy impacts were not significant. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to energy are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse energy impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

VII.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less Than Significant Impact	No Impact
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:			V
1	. 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 liguation? 			\mathbf{V}
2	4. Landslides?			V
b)	Result in substantial soil erosion or the loss of topsoil?			V
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?			Ŋ

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?		Ø
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?		Ø

GEOLOGY AND SOILS DISCUSSION

Significance Criteria

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

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil;
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project;
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides;
- Secondary seismic effects could occur that could damage facility structures (e.g., liquefaction); or
- Other geological hazards exist which could adversely affect the facility (e.g., landslides, mudslides).

VII. a), c) & d) Southern California is an area of known seismic activity. Structures must be designed to comply with the Uniform Building Code (UBC) Zone 4 requirements if they are located in a seismically active area. The local city or county is responsible for assuring that a proposed project complies with the UBC as part of the issuance of building permits and can conduct inspections to ensure compliance. The UBC 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 UBC bases seismic design on minimum lateral seismic forces (i.e., "ground shaking"). The UBC 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 UBC seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site.

The UBC requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction. Thus, the construction-related modifications associated with the proposed project would be required to conform to the UBC and all other applicable state and local codes. All new equipment and structures would conform to UBC requirements. As a result, the proposed project will not alter the exposure of

people or property to the risk of loss, injury, or death involving seismic-related activities, including landslides, mudslides, or ground failure.

VII. b) The ExxonMobil Rule 1105.1 Compliance project does not include the demolition of the existing ESP equipment, or the demolition of any other structures. The existing ESPs will remain in place and used as needed during the maintenance of the new ESPs. In addition, it is proposed that the existing ESPs be operated as needed to maintain the total input power levels of the new ESPs. This could occur during normal operating periods (i.e., if the new ESPs were to malfunction) or during maintenance of the new ESPs. Once the proposed project is complete, the existing ESPs will be turned off (i.e., electrically down), with the exception of the mechanical rappers, unless needed as indicated above.

The proposed project will however, include the excavation of approximately 1,752 tons of soil during excavation activities. Emissions have been estimated assuming "worst-case;" that all material will be removed off-site and the peak daily "worst-case" would be 58 tons of material removed off-site (emissions to be presented in the Draft EIR air quality analysis). In reality, it is not expected that all material will be required to be disposed off-site. Some of the material, most likely that removed during trenching for the underground electrical and sewer line relocation, will be replaced. In either case, the topsoil will not be lost due to erosion, but will be either disposed off-site, or removed and replaced. Further, the ESP foundation and surrounding paved area will prevent future soil erosion or loss of topsoil. As a result, it is not expected that the proposed project will result in substantial soil erosion or loss of topsoil. The excavation of these materials is required to ensure a sound foundation for the new ESP equipment and associated utility infrastructure. Table 2-3 presents a summary of the material to be excavated by activity and performed in the initial phase of construction.

Activity	Area Dimensions ⁽²⁾ (Length/Width/Depth)	Cubic Yards	Tons
Underground utilities	1000 x 3 x 5	556	612
Switch house Building	20 x 30 x 4	89	98
Sewer Line Relocation	200 x 42	59	65
Footprint - ESPs	150 x 40 x 4	889	978
Total Material Excavated		1593	$1752^{(3)}$

 TABLE 2-3
 SUMMARY OF MATERIAL TO BE EXCAVATED BY ACTIVITY⁽¹⁾

(1) Assuming all material excavated in initial phase of construction over a period of 30 days.

(2) Area dimensions in feet.

(3) 1,752 tons of material excavated \div 30 days = 58 tons [peak daily] of material removed off-site.

(4) Assuming one dump truck holds 13 tons ($58 \div 13 = 4.46$, rounded to 5 dump trucks).

VII. e) Septic tanks or other similar alternative wastewater disposal systems are typically associated with small residential projects in remote areas. The proposed project does not include any requirements that generate construction of residential projects in remote areas. Further, no increase in water use or wastewater generation is expected due to the proposed project. People or property will not be exposed to expansive soils or soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems. Site modifications implemented to comply with SCAQMD Rule 1105.1 will occur at an existing facility where sewerage systems are already connected to local or regional wastewater systems.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative geology and soils impacts during construction, as any effects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in geology and soils impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant geology and soils impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, ExxonMobil in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to geology and soils are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse geology and soils impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
VIII	. HAZARDS AND HAZARDOUS	-	-	
MAT	FERIALS. 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?			V
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?		Ø
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?		V
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		Ø
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?		Ø
i)	Significantly increased fire hazard in areas with flammable materials?		V

HAZARDS AND HAZARDOUS MATERIALS DISCUSSION:

Significance Criteria

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

- Non-compliance with any applicable design code or regulation;
- Non-conformance to National Fire Protection Association standards;
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection; or
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG-2) levels.

VIII. a) & b) There are no provisions in the proposed project that would increase the hazardous materials currently transported, used, or disposed by the ExxonMobil Torrance Refinery. Implementation of the proposed project will however, reduce the transportation, use and disposal of anhydrous ammonia.

The Torrance Refinery currently uses approximately 3,225 pounds of anhydrous ammonia per day as a flue gas conditioner to improve ESP performance. After passing through the ESP, anhydrous ammonia is used as the reducing agent in the selective catalytic reduction (SCR) control equipment attached to the FCCU exhaust system for NOx control. Ammonia slip (i.e., ammonia emissions that "slip" unreacted through the catalyst) is associated with all SCR systems. In order to comply with Rule 1105.1 and the new 10 ppmv ammonia standard, anhydrous ammonia usage in this process will be reduced to approximately 1,035 pounds per

day. This reduction in the use of anhydrous ammonia is a direct environmental benefit, and will reduce the risks and hazards associated with deliveries and potential on-site/off-site spills of anhydrous ammonia. The refinery currently accepts one truck delivery (trip) of anhydrous ammonia per day. As a result of the proposed project, the truck deliveries (trips) will be reduced to one truck delivery every three days.

All site modifications initiated by the Torrance Refinery to comply with Rule 1105.1 will be implemented without impacting operational safety procedures or practices regarding the transportation, use and disposal of hazardous materials.

Since the proposed project is not expected to increase the transportation, use or disposal of hazardous materials, but will reduce the transportation of anhydrous ammonia, the ExxonMobil Rule 1105.1 Compliance project is not expected to 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.

VIII. c) The ExxonMobil Torrance Refinery is not located within one-quarter mile of an existing or proposed school. In addition, the proposed project is not expected to increase or create any new hazardous emissions that would adversely affect existing or proposed schools. Therefore, no potential for adverse impacts from hazardous emissions or the handling of hazardous or acutely hazardous materials, substances or waste on existing or proposed schools in the area of the Torrance Refinery are expected as a result of the proposed project.

VIII. d) California Government Code §65962.5 states that the Department of Toxic Substances Control (DTSC) shall compile and update (at least annually), a list of the following:

- all hazardous waste facilities subject to corrective action pursuant to California Health and Safety Code (H&SC) §25187.5;
- all land designated as hazardous waste property or border zone property pursuant to California H&SC Division 20, Chapter 6.5, Article 11;
- all information received by the DTSC pursuant to California H&SC §25242 regarding hazardous waste disposal on public land;
- all sites listed pursuant to California H&SC §25356; and
- all sites included in the Abandoned Site Assessment Program;

The purpose of this section on the CEQA checklist is to evaluate if the proposed project will occur on property where hazardous waste corrective action is required, where unauthorized hazardous waste disposal on public land has occurred, if the property meets the criteria for a hazardous substance release site requiring a response action, is a designated hazardous waste property, or is an abandoned [contaminated] site.

The ExxonMobil Torrance Refinery is an operating facility. The site is not an abandoned hazardous waste facility, is not subject to corrective action, is not designated as hazardous waste property, and does not engage in unauthorized hazardous waste disposal on public lands. The proposed project will not alter how the refinery handles, treats, stores or disposes of hazardous materials or waste. Hazardous materials and hazardous waste at the Torrance Refinery will continue to be managed in accordance with all applicable federal, state and local rules and regulations regardless of the ExxonMobil Rule 1105.1 Compliance Project.

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the state, local agencies and developers to comply with CEQA requirements in providing

information about the location of hazardous materials release sites (pursuant to Government Code §65962.5). The ExxonMobil Torrance Refinery is not listed as a hazardous waste or substance site pursuant to a search of DTSC's Hazardous Waste and Substances Site List – Site Cleanup database [www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm].

VIII. e) & f) The closest airport to the Torrance Refinery is the Torrance Municipal Airport, approximately 4.5 miles to the southwest. The refinery is not within the Torrance Municipal Airport influence area or planning boundary. Further, the proposed project is not within the vicinity of any private airstrip. The proposed project is not expected to result in a safety hazard for people residing or working in the project area.

VIII. g) There are no provisions in the proposed project that would increase the hazardous materials currently transported, stored, used, or generated by the refinery that would impair implementation of or physically interfere with an adopted or modified emergency response plan or emergency evacuation plan.

In addition, the ExxonMobil Torrance Refinery has a site-specific emergency response plan in effect. No modifications to the refinery emergency response plan are expected to be required as a result of the proposed project since the project involves primarily the installation of air pollution control equipment. The reduction in the use of anhydrous ammonia as a result of the proposed project, will not affect the existing safety and operational procedures outlined in the emergency response plan as they will continue to be implemented within the refinery.

California Health & Safety Code §25506 specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency plans generally require the following:

- Identification of individuals responsible for various activities, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Notification procedures (e.g., to local administering and emergency rescue personnel, the state Office of Emergency Services, and facility responders);
- Response procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Evacuation plan procedures;
- Description of emergency equipment on-site and local emergency medical assistance; and
- Training programs for employees.

In general, cities, counties and all facilities using a minimum amount of hazardous materials are required to formulate detailed contingency plans to reduce the possibility and effect of fires, explosions, or spills. In conjunction with the state Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for emergency response plans. These requirements, as outlined above, include immediate notification, mitigation of an actual or threatened release of a hazardous materials, and evacuation of the area. The proposed project will not alter the refinery's ability to comply with emergency response regulations or ordinances. The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions.

VIII. h) The ExxonMobil Rule 1105.1 Compliance Project will be implemented at the existing Torrance Refinery located in a designated manufacturing area devoid of wildlands. Further, the proposed project will affect an existing 750-acre facility, which is surrounded by other developed land uses devoid of wildlands (e.g., industrial, commercial and residential). As a result, it is highly unlikely that the Torrance Refinery will contribute a significant risk of loss, injury or death attributed to wildland fires in the course of implementing the proposed project.

VIII. i) The Uniform Fire Code and the UBC set standards intended to minimize risks from flammable or otherwise hazardous materials. Local jurisdictions are required to adopt the uniform codes or comparable regulations. Local fire agencies typically require permits for the use or storage of hazardous materials and permit modifications would be required for any proposed increases in their use. Permit conditions depend on the type and quantity of the hazardous materials at the facility. Permit conditions may include, but are not limited to, specifications for sprinkler systems, electrical systems, ventilation, and containment. The fire departments make periodic business inspections to ensure compliance with permit conditions and other appropriate regulations.

All hazardous materials are expected to be used in compliance with established Occupational Safety and Health Administration (OSHA) or Cal/OSHA regulations and procedures, including providing adequate ventilation, using recommended personal protective equipment and clothing, posting appropriate signs and warnings, and providing adequate worker health and safety training. When taken together, the above regulations provide comprehensive measures to reduce hazards, if any, of explosive or otherwise hazardous materials. Compliance with these and other federal, state and local regulations and proper operation and maintenance of equipment should ensure that the potential for explosions or accidental releases of hazardous materials will remain significant.

The proposed project does not include any components that involve the use of flammable materials, or contribute to an increased fire hazard risk in the immediate area of the project site, or the community outside the refinery.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative hazards/hazardous materials impacts during construction, as any effects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in hazards/hazardous materials impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that potential significant hazards and hazardous materials impacts were expected from the implementation of Rule 1105.1 and that they would be analyzed further in the EA. The Final EA subsequently concluded that hazards and hazardous materials were not significant. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to hazards and hazardous materials are expected to occur as a result of the implementation of Rule 1105.1.

*It is important to note that the fine particulate matter collected by the ESP (e.g. FCC catalyst) at the ExxonMobil Torrance refinery is not classified as a hazardous material or hazardous waste. See Section XVI Solid/Hazardous Waste for the discussion of spent FCC catalyst.

Based upon these considerations, significant adverse hazards and hazardous materials impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
IX.	HYDROLOGY AND WATER QUALITY. Would the project:	Impuct	Impuct	
a)	Violate any water quality standards or waste discharge requirements?			V
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)?			V
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?			Ŋ
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?			J
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?			V
f)	Otherwise substantially degrade water quality?			V
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			

h)	hazard delineation map? Place within a 100-year flood hazard area structures which would impede or redirect flood flows?		Ø
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?		Ø
j)	Inundation by seiche, tsunami, or mudflow?		\checkmark
k)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?		V
1)	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?		V
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?		V
n)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?		V
0)	Require in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?		V

HYDROLOGY AND WATER QUALITY DISCUSSION:

Significance Criteria

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

Water Quality

- The project will cause degradation or depletion of groundwater resources substantially affecting current or future uses;
- The project will cause the degradation of surface water substantially affecting current or future uses;
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements;
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project;
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs; or
- The project results in alterations to the course or flow of floodwaters.

Water Demand

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use a substantial amount of potable water; or
- The project increases demand for water by more than five million gallons per day.

IX. a), f) & k) The proposed project has no direct or indirect effects on existing water or wastewater quality at the ExxonMobil Torrance Refinery. The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions. ESPs do not use water as part of the pollution control system or generate wastewater. The proposed project does not include any provisions that would result in a violation of water quality standards, wastewater treatment requirements, or otherwise substantially degrade water quality. The refinery currently complies with and will continue to comply with all relevant wastewater requirements, waste discharge regulations, stormwater runoff standards, and any other relevant requirements for direct discharges into sewer systems or from the site.

IX. b) Since ESPs do not use water as part of the pollution control system, the proposed project does not require the direct or indirect use of groundwater and, as a result, is not expected to deplete groundwater supplies, influence groundwater quality, or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or the lowering of the local groundwater table level. Further, implementation of the proposed project would not increase the demand for groundwater from any existing entitlements or resources, thereby requiring new or expanded entitlements.

IX. c), d) & e) The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions. Implementation of the proposed project will occur at an existing facility located in an area that is generally level, is paved or covered with gravel, and the drainage infrastructures are already in place. The proposed project is not expected to substantially alter existing drainage patterns or infrastructure during construction or operation and, therefore, will not affect surface

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runoff. The proposed project will not require the alteration of any stream or river, thereby increasing erosion or siltation off-site, increasing surface runoff (resulting in flooding), or exceeding the capacity of stormwater drainage systems.

IX. g), h), i) & j) The proposed project does not require the construction of any new housing, relocation of existing homes, or the siting of any new facilities within a 100-year flood hazard area. Since no structures will be constructed or relocated within a 100-year flood area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map, it is not expected that the proposed project will expose people or structures to significant new flooding risks. The proposed project involves the installation of new air pollution control equipment on an existing FCCU regenerator within the boundaries of an existing 750-acre petroleum refinery. Further, the proposed project will not alter the existing setting to the extent that the Torrance Refinery would be subject to a greater potential for flood hazards such as inundation by seiche, tsunami, mud flow, or failure of a levee or dam.

IX. l), m), n) & o) The proposed project involves installing air pollution control equipment on the exhaust of the existing FCCU regenerator downstream of the existing ESPs to reduce PM10 and ammonia emissions. The ExxonMobil Rule 1105.1 Compliance project does not require any additional water, or generate any additional wastewater, over and above what is used or generated under existing conditions at the refinery. It is anticipated that one of the existing sewer lines adjacent to the FCCU will have to be relocated due to its proximity to the planned new ESP footprint [foundation], but is not expected to cause significant adverse hydrology or water quality impacts. The proposed project will not affect existing stormwater drainage infrastructure, or cause new stormwater drainage systems to be constructed within existing affected facilities.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative hydrology and water quality impacts during construction, as any effects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in hydrology and water quality impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant hydrology and water quality impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to hydrology and water quality are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse hydrology and water quality impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

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

LAND USE PLANNING DISCUSSION:

Significance Criteria

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

X. a) – c) The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions, and will not affect any habitat conservation or natural community conservation plans.

Since the ExxonMobil Rule 1105.1 Compliance Project affects the existing Torrance Refinery, which is located within an area designated manufacturing, and all site modifications would occur entirely within the boundaries of this facility, the proposed project is not expected to physically divide an established community.

There are no provisions of the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by installing new, more efficient air pollution control equipment (i.e., two new ESPs). The proposed project will not require any modifications to the existing conditional use permit for the Torrance refinery.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative land use and planning impacts during construction, as any effects from the project would be localized to the city of Torrance. No other affected refineries are located in the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in land use and planning impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant land use impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS prepared for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to land use or planning are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse land use and planning impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

***		Potentially Significant Impact	Less Than Significant Impact	No Impact
XI.	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?			Ŋ

MINERAL RESOURCES DISCUSSION:

Significance Criteria

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

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

XI. a) & b) There are no provisions in the ExxonMobil Rule 1105.1 Compliance Project that would result in the loss of, or availability of, a known mineral resource of value to the region and the residents of the state or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The facility affected by the proposed project is located within a designated manufacturing area and the new air pollution control equipment (e.g., ESPs) being installed will be located within the boundaries of the existing Torrance Refinery. All site modifications associated with the construction and installation of the

new ESPs will be performed within the boundaries of the existing facility and within a location that has been previously disturbed and predominantly paved.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative mineral resource impacts during construction, as any affects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in mineral resource impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant mineral resource impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS prepared for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to mineral resources are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse mineral resources impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

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

 \mathbf{N} For a project located within an airport land use e) 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? f) For a project within the vicinity of a private \mathbf{N} airship, would the project expose people residing

NOISE DISCUSSION:

Significance Criteria

levels?

Impacts on noise will be considered significant if any of the following conditions are met:

or working in the project area to excessive noise

- Construction noise levels exceed the City of Torrance noise ordinance or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels at the site boundary. Construction noise levels will be considered significant if they exceed federal OSHA noise standards for workers; or
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

XII. a) - d) Noise is usually defined as sound that is undesirable because it interferes with speech communication and hearing, is intense enough to damage hearing, or is otherwise annoying (unwanted noise). Sound levels are measured on a logarithmic scale in decibels (dB). The universal measure for environmental sound is the "A" weighted sound level (dBA) which is the sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. "A" scale weighting is a set of mathematical factors applied by the measuring instrument to shape the frequency content of the sound in a manner similar to the way the human ear responds to sounds.

The State Department of Aeronautics and the California Commission of Housing and Community Development have adopted the Community Noise Equivalent Level (CNEL). The CNEL is the adjusted noise exposure level for a 24-hour day and accounts for noise source, distance, duration, single event occurrence frequency, and time of day. The CNEL considers a weighted average noise level for the evening hours, from 7:00 p.m. to 10:00 p.m., increased by five dBA, and the late evening and morning hour noise levels from 10:00 p.m. to 7:00 a.m., increase by 10 dBA. The daytime noise levels are combined with these weighted levels and averaged to obtain a CNEL value. The adjustment accounts for the lower tolerance of people to noise during the evening and nighttime hours relative to the daytime hours.

Federal, state and local agencies regulate environmental and occupational, as well as other aspects of noise. Federal and state agencies generally set noise standards for mobile sources, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of General Plan policies and noise ordinance standards, which are general

principles intended to guide and influence development plans. Noise ordinances set forth specific standards and procedures for addressing particular noise sources and activities. OSHA sets and enforces noise standards for worker safety.

Modifications or changes associated with the implementation of the ExxonMobil Rule 1105.1 Compliance Project will take place at the existing Torrance Refinery which is located in a designated heavy manufacturing land use area. The existing noise environment in the area is dominated by heavy equipment, vehicular and truck traffic in and around the facility, and process equipment/machinery. In addition, the refinery is adjacent to the Interstate 405 freeway. The new equipment installed as a result of the proposed project is not expected to produce noise in excess of current operations at the refinery and the day-to-day operations associated with the new ESPs are not expected to add new sources of noise or vibration to the refinery that would be noticeable outside the refinery boundaries. Further, the proposed project could potentially produce noise reduction benefits by installing more efficient equipment. The refinery currently complies with existing local noise laws and ordinances, as well as OSHA noise standards to protect worker health. As a result, the proposed project is not expected to increase the ambient noise levels at the site or permanently increase existing noise levels once operational. Therefore, there will be no increases in the exposure of persons to or generation of noise levels in excess of existing levels or standards established by plans, ordinances or applicable agencies.

Construction activities associated with the proposed project will generate noise from heavy equipment and construction-related traffic. Most of the noise will be localized to the immediate area within the refinery planned for the placement of the new ESP equipment. The project site within the refinery is approximately one-half mile from the exterior boundary of the refinery and the noise levels are expected to completely attenuate (the lowering of noise levels over distances) over this distance.

XII. e) & f) Since the proposed project will not generate new adverse noise impacts that would be noticeable within the immediate area of the 750-acre Torrance Refinery, it is not expected that the project would expose people residing or working in the project area associated with airfields to excessive noise levels. Further, the project site is not located within an airport land use plan, or in the vicinity of a public airport, public use airport or private airstrip. The closest airport is the Torrance Municipal Airport, approximately 4.5 miles to the southwest. As a result, the proposed project is not expected to produce noise that exceeds existing noise levels in the area or expose people residing or working in the area to excessive noise levels.

In general, the proposed project will affect the existing interior of the Torrance Refinery and will not generate excessive noise levels outside the boundaries of the facility. Further, given ambient noise levels near the refinery, noise attenuation, and compliance with local noise ordinances, potential noise impacts are not expected to be significant.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative noise impacts during construction, as any affects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in noise impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS

prepared for Rule 1105.1 determined that significant noise impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to noise are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse noise impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

XIII.	POPULATION AND HOUSING. Would the	Potentially Significant Impact	Less Than Significant Impact	No Impact
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?			V
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			V

POPULATION AND HOUSING DISCUSSION:

Significance Criteria

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

- The demand for temporary or permanent housing exceeds the existing supply; or
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

XIII. a) – c) The proposed project will not require any actions that will, either directly or indirectly, induce growth or adversely affect population or population distribution. The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions. In the event that some construction may be necessary to comply with the proposed project, it is

anticipated that construction workers can be drawn from the existing local labor pool in southern California.

Further, because the proposed project affects an existing facility in a designated manufacturing area, it is not expected to result in the creation of an industry that would affect population growth, directly or indirectly induce the construction of housing units, or require the displacement of people or housing to elsewhere in the district.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected however, that there will be cumulative population and housing impacts during construction, as any affects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in population and housing impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant population and housing impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS prepared for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to population and housing are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse population and housing impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant Impact	No Impact
XIV.	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) b) c)	Fire protection? Police protection? Schools?		2 2 2
d) e)	Parks? Other public facilities?		$\mathbf{\overline{\mathbf{N}}}$

PUBLIC SERVICES DISCUSSION:

Significance Criteria

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

XIV. a) – b) The proposed project does not require any action that would alter and, thereby, adversely affect existing public services, or require an increase in governmental facilities or services to support the affected facilities. The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions.

The existing Torrance Refinery is located in a designated manufacturing area, and the new ESPs will be located within the boundaries of this facility. Since the proposed project does not increase the transport, storage, use, or generation of hazardous materials/waste, there is no potential for an increase in the probability of an accidental release that would require emergency response by local city or county HazMat personnel, fire departments, or police departments. As a result, current fire, police and emergency services are adequate to serve existing operations, and the proposed project will not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives.

XIV. \mathbf{c}) – \mathbf{e}) The proposed project will not directly or indirectly induce population growth in the area, either locally or regionally. The proposed project involves the installation of new air pollution control equipment (e.g., ESPs) on the existing FCCU regenerator at the ExxonMobil Torrance Refinery. As such, the proposed project will not result in substantial adverse physical impacts on schools, parks or other public facilities, or create the need for new additional schools, parks or other public facilities.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative public services impacts during construction, as any affects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in public services impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant public services impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, ExxonMobil in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to public services are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse public service impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

XV.	RECREATION.	Potentially Significant Impact	Less Than Significant Impact	No Impact
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.?			
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?			M

RECREATION DISCUSSION:

Significance Criteria

The impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities; or
- The project adversely affects existing recreational opportunities.

XV. a) & b) The ExxonMobil Rule 1105.1 Compliance Project does not require any action that will promote or alter existing population growth or densities in the area locally or regionally. Further, there are no provisions of the proposed project that would directly or indirectly affect any land use plans, policies or ordinances or regulations. As a result, no provisions of the proposed project would either directly, or indirectly, cause an increase in population that would increase the use of neighborhood/regional parks or recreational facilities, thereby causing any accelerated deterioration. Further, the proposed project will not involve the use of recreational

facilities or require the construction of new, or expansion of existing, recreational facilities to the detriment of the environment.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected however, that there will be cumulative recreation impacts during construction, as any affects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in recreation impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant recreation impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to recreation are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse recreation impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

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

SOLID/HAZARDOUS WASTE DISCUSSION:

Significance Criteria

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

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

XVI. a) & b) There are no provisions of the proposed project that would alter the current generation or disposal of non-hazardous solid waste or hazardous solid waste once operational. During construction activities, however, if hazardous materials are encountered (e.g., asbestos,

contaminated soil), they will be properly classified in accordance with local, state and federal regulations and appropriately handled, managed, transported, and disposed.

The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs. An ESP, or electrostatic air cleaner, is a particulate collection device that removes particles from a flowing gas (such as air) using the force of an induced electrostatic charge. ESPs are highly efficient filtration devices that minimally impede the flow of gases through the device, and can easily remove fine particulate matter such as dust and smoke from the air stream. As a result, ESPs collect particulates that would otherwise be released into the atmosphere from the FCCU.

The proposed project includes a pneumatic conveyance system that will automatically collect the particulates from the ESP and transfer them to a new storage silo. This closed conveyance system, with small blowers as the motive force, will transfer solids from the ESP to the storage silo. A bag filter attached to the silo will remove any entrained solids from the exhaust gas before it leaves the silo to the main FCCU stack. As Table 2-4 below reflects, the PM10 emissions associated with this system are less than one lb/day (the table was derived from the ExxonMobil 1105.1 application for Permit to Construct).

TABLE 2-4SILO EMISSIONS

Daily Throughput (lbs/day)	Uncontrolled PM Emission Factor (lbs/ton)	Uncontrolled PM10 Emission Factor (lbs/ton)	Control Efficiency (%)	Controlled PM Emissions (lbs/day)	Controlled PM10 Emissions (lbs/day)
2,850	0.72	0.46	95	0.051	0.033

Note: EPA-42 Section 11.12 Concrete Batching, October 2001 "Cement unloading to elevated storage silo (pneumatic)" uncontrolled PM and PM10 emission factors were used to calculate emissions from the ESP silo since the solid particulates consist of mostly catalyst fines which is similar to cement. The baghouse was assumed to have a control efficiency of 95%.

The particulates collected by the ESP are referred to in the refinery as spent FCC catalyst. This material will be collected by the ESP and stored in a silo. Once the storage silo is full, the material is shipped offsite to California Portland Cement and used [recycled] in their cement kilns as a substitute for alumina and silica in the kiln feed. The material is thereby not subject to hazardous waste classification. The material is defined as "excluded recyclable material," or ERM, pursuant to California Health and Safety Code 25143.2(b)(1) and Title 22 of the California Code of Regulations §66261.6(a)(5)(A). As a result, this material is not a waste, but considered a recyclable material.

The volume of spent FCC catalyst increases due to the collection efficiency of the new ESP units; however, the truck trips will be reduced due to an increase in on-site storage capacity (see Section XVII - Transportation/Traffic). The decrease is based on the increase in on-site storage capacity. For example, the current onsite storage capacity is limited and requires that the material collected by the ESPs be shipped offsite almost daily (234 truck trips per year). With the increased onsite storage capacity associated with the proposed project, the volume of catalyst fines that can be held onsite increases, and the requirement for frequent offsite shipments is reduced to 130 truck trips per year.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative solid/hazardous waste impacts during construction, as any affects from the project would be localized to the city of Torrance. Minimal non-hazardous construction debris/waste is expected to be generated from the proposed project, and no demolition activities are planned. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in solid/hazardous waste impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant solid/hazardous waste impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS prepared for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative solid/hazardous waste impacts are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse solid/hazardous waste impacts are not anticipated and will not be further analyzed in the Draft EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

XVI	II. TRANSPORTATION/TRAFFIC. Would the project:	Potentially Significant Impact	Less Than Significant Impact	No Impact
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)?			Ŋ
b)	Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			J
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?			V

d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?		Ø
e)	Result in inadequate emergency access or access to nearby uses?		V
f)	Result in inadequate parking capacity?		V
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?		V

TRANSPORTATION/TRAFFIC DISCUSSION:

Significance Criteria

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

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month;
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F;
- A major roadway is closed to all through traffic, and no alternate route is available;
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system;
- The demand for parking facilities is substantially increased;
- Water borne, rail car or air traffic is substantially altered; or
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.

XVII. a) & b)

Operational Transportation/Traffic

The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions, and is not expected to adversely affect existing traffic levels, or exceed the LOS standards on roadways or at intersections in the vicinity of the refinery once operational for the following reason. The proposed project will not require the hiring of additional full-time permanent employees, which would typically increase daily vehicle commuter trips to and from the affected facility and impact operational vehicle trips.

The current ESP air pollution control equipment collects catalyst fines that must be disposed of off-site. The new ESP air pollution control equipment will be more efficient and capture more catalyst fines; however, the refinery proposes to increase the onsite storage capacity which would reduce the requirement for frequent offsite shipments. As a result, the truck trips will be

reduced. For example, the current onsite storage capacity is limited and requires that the material collected by the ESPs be shipped offsite almost daily (234 truck trips per year). With the increased onsite storage capacity associated with the proposed project, the volume of catalyst fines that can be held onsite increases, and the requirement for frequent offsite shipments is reduced to 130 truck trips per year.

Other operational truck trips that will be affected by the proposed project are those related to the truck deliveries (trips) of anhydrous ammonia. The reduction in the use of anhydrous ammonia as a result of the proposed project is a direct environmental benefit, and will reduce the risks and hazards associated with deliveries and potential on-site/off-site spills of ammonia. The refinery currently accepts one truck delivery (trip) of anhydrous ammonia per day. As a result of the proposed project, the truck deliveries (trips) will be reduced to one truck delivery every three days.

Based on the above, no additional operational-related trips are anticipated as a result of the implementation of the ExxonMobil Rule 1105.1 Compliance Project. Since no additional operational-related trips are anticipated, the implementation of the proposed project is not expected to significantly adversely affect, either individually or cumulatively, circulation patterns on local roadways or the level of service at intersections near the affected facility.

Construction Transportation/Traffic

Based on the preliminary construction scenario, traffic in and around the Torrance Refinery may increase during construction activities, but not substantially. These construction activities will generate a temporary increase in traffic in the areas surrounding the refinery due to worker commute trips. However, as stated in the SCAQMD Final EA for Rule 1105.1, and presented in Table 2-4 below, the proposed project is not expected to cause a significant increase in traffic relative to the existing traffic load and capacity of the street systems surrounding the refinery. Further, based on the number of trips in Table 2-5, no increase in heavy-duty truck traffic to and/or from the Torrance Refinery by more than the SCAQMD significance threshold of 350 truck trips (round trips) per day is expected. These peak daily construction trips by phase were derived from an analysis of truck trips and worker commute trips anticipated during construction activities for the ExxonMobil Rule 1105.1 Compliance Project.

Phase	Heavy-Duty Truck Trips (Delivery Trucks, Stakebed Trucks, Flatbed Trucks, Dump Trucks, Cement Trucks)	Worker Commute Trips (Passenger Vehicles)
Phase 1	46	180 ⁽¹⁾
Phase 2	30	240
Phase 3	8	60 ⁽¹⁾
Phase 4	8	120 (1)

TABLE 2-5PEAK DAILY CONSTRUCTION TRIPS BY PHASE

⁽¹⁾ Phases 1, 3 and 4 include two 10-hour shifts. These numbers include worker commutes for both shifts.

Although there will be temporary effects of an increase in truck traffic during certain construction phases, the proposed project is not expected to alter the existing long-term circulation patterns, the capacity of the street system, or exceed the LOS standard established by the county congestion management agency for designated roads or highways. As reflected in Table 2-5, it is not expected that the ExxonMobil Rule 1105.1 Compliance Project would cause short-term construction-related impacts on circulation patterns, the capacity of the street system,

or exceed the LOS standard established by the county congestion management agency for designated roads or highways.

XVII. c) The proposed project has no requirements that influence or affect air traffic patterns. The closest airport is the Torrance Municipal Airport, approximately 4.5 miles to the southwest. The refinery is not within the airport's planning boundary or airport influence area. Based on this information, it is not expected that implementation of the proposed project will result in any changes to air traffic patterns or increases in traffic levels. Further, the proposed project does not include constructing a structure/building/equipment over 200 feet in height that would result in a potential [air] safety risk or require approvals from the Federal Aviation Administration.

XVII. d), e), f) & g) The ExxonMobil Rule 1105.1 Compliance Project involves the installation of new air pollution control equipment (i.e., two new ESPs) on the exhaust of the existing FCCU regenerator downstream of the existing ESPs within the boundaries of the existing ExxonMobil Torrance Refinery to comply with SCAQMD Rule 1105.1 to reduce PM10 and ammonia emissions. There are no components of the proposed project that require construction of roadways that could include transportation design features, sharp curves, dangerous intersections or incompatible uses on local streets and highways. All site modifications will occur within the boundaries of the existing refinery. Further, the proposed project does not include any components that would affect existing emergency access, parking capacity or any adopted policies, plans or programs regarding alternative transportation. The Torrance refinery has a large parking lot within walking distance of the proposed construction site available for worker commute parking during construction. It is not expected that parking capacity, even during peak daily commute periods, would be impacted.

As previously mentioned, ExxonMobil Rule 1105.1 construction activities are expected to overlap with Rule 1105.1 compliance projects at other refineries in the Basin. It is not expected; however, that there will be cumulative transportation and traffic impacts during construction, as any affects from the project would be localized to the city of Torrance. Impacts from multiple construction events will not affect the same communities, so there would be no substantial increase in transportation and traffic impacts from all Rule 1105.1 compliance projects.

During the Rule 1105.1 development process, the SCAQMD prepared an IS evaluating the potential impacts associated with implementing the rule at five refineries in the Basin. The IS prepared for Rule 1105.1 determined that significant transportation/traffic impacts were not expected from the implementation of Rule 1105.1 and that they would not be analyzed further in the EA. The IS for the proposed project consists of evaluating the activities associated with the implementation of Rule 1105.1 at one refinery, the ExxonMobil refinery in Torrance, which are within the scope of the larger project evaluated in the SCAQMD's Final EA. Therefore, both the SCAQMD Final EA and the ExxonMobil Rule 1105.1 Compliance Project IS have concluded that no significant adverse project-specific or cumulative impacts to transportation/traffic are expected to occur as a result of the implementation of Rule 1105.1.

Based upon these considerations, significant adverse transportation/traffic impacts are not anticipated and will not be further analyzed in the EIR. Since no significant impacts were identified, no mitigation measures are necessary or required.

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

DISCUSSION OF MANDATORY FINDINGS OF SIGNIFICANCE:

XVIII. a) As discussed in the "Biological Resources" section, the proposed project is not expected to significantly adversely affect any plant or animal species or the habitat on which they rely because the new air pollution control equipment (e.g., ESPs) and FCCU are located entirely within the boundaries of the existing refinery in a designated manufacturing area that has already been greatly disturbed and that currently does not support animal species or the habitats on which they rely. Additionally, special status plants, animals, or natural communities are not generally found within close proximity to manufacturing areas, which is where the existing refinery [project site] is located.

XVIII. b) and c) A preliminary analysis of air quality impacts has revealed that potential operational and construction related project specific impacts are within the limits outlined in the SCAQMD Final EA for Rule 1105.1. There is however, a potential for regional cumulative air quality impacts due to the extent of concurrent Rule 1105.1 construction activities overlapping with Rule 1105.1 compliance projects at other affected refineries. As a result, the entire air quality analysis for the proposed project will be quantified and presented in an EIR. The Draft EIR will be a focused analysis, including an evaluation of project-specific air quality emissions and regional cumulative air quality impacts. Where feasible, the analysis and results in the SCAQMD Final EA will be applied to the analysis in the EIR pursuant to CEQA Guidelines

§§15189(a) and 15187. The results of the analysis in the EIR will determine whether the project will be cumulatively considerable or have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly.