May 2008 SCH No. 2007081057

CHEVRON PRODUCTS COMPANY
EL SEGUNDO REFINERY

PRODUCT RELIABILITY AND OPTIMIZATION PROJECT

FINAL ENVIRONMENTAL IMPACT REPORT

Attachment 1: Findings, Statement of Overriding Considerations, and Mitigation, Monitoring and Reporting Plan

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1.0 INTRODUCTION

Chevron Products Company is proposing the Product Reliability and Optimization (PRO) Project at its existing El Segundo Refinery (Refinery). The proposed project includes modifications to the No. 2 Crude Unit, No. 2 Residuum Stripper Unit (RSU), Minalk/Merox Unit, Waste Gas Compressors, Fluidized Catalytic Cracking Unit (FCCU), Alkylation Unit, Vacuum Residuum Desulfurization Unit (VRDS), ISOMAX Unit, Cogeneration (Cogen) Facilities, and the Railcar Loading/Unloading Rack. New process units include sulfur processing facilities (i.e., Sour Water Stripper (SWS), Sulfur Recovery Unit (SRU), and Tail Gas Unit (TGU)), a Vapor Recovery and Safety Flare System, Water Treatment Facilities (i.e., reverse osmosis units and nitrogen removal units), and additional storage capacity. The purpose of these modifications and additions is to increase the reliability, energy efficiency, and capacity of specific existing Refinery processing equipment; allow the processing of a wider range of crude oils; and voluntarily reduce potential atmospheric emissions from existing pressure relief devices (PRDs). The proposed project will not increase or decrease the overall refinery crude throughput capabilities.

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

To fulfill the purpose and intent of CEQA, the SCAQMD, as the lead agency for the proposed project, prepared and released a Notice of Preparation and Initial Study (NOP/IS) to address potential adverse environmental impacts associated with the proposed PRO Project. The NOP/IS were circulated for a 30-day comment period beginning on August 10, 2007 through September 11, 2007. The NOP/IS was circulated in El Segundo and to neighboring jurisdictions, responsible agencies, other public agencies, and interested individuals in order to solicit input on the scope of the environmental analysis to be included in the EIR. Five comment letters were received on the NOP/IS during the public comment period. Responses to those comments are provided in Appendix A of the Final EIR. The NOP/IS formed the basis for and focus of the technical analyses in the Draft EIR. The following environmental issues were identified in the NOP/IS as potentially significant and are further addressed in the EIR: Air Quality, Energy, Hazards and Hazardous Materials, Hydrology/Water Quality, Noise, Solid/Hazardous Waste, and Transportation/Traffic. The NOP/IS concluded that there would be no significant adverse impacts on aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, land use and planning, mineral resources, population and housing, public services, and recreation. A copy of the NOP/IS is included in Appendix A of the Final EIR.

The Draft EIR for the proposed PRO Project was released for a 45-day public review and comment period from March 7, 2008 to April 22, 2008. Four comment letters were

received during the comment period for the Draft EIR**.** Responses to the comments have been prepared and are included in Appendix G of the Final EIR. Changes to the proposed project were evaluated and minor modifications have been made to the Draft EIR such that it is now a Final EIR. However, none of the modifications alter any conclusions reached in the Draft EIR, or provide new information of substantial importance relative to the draft document that would require recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5. The environmental disciplines that were determined to have potentially significant impacts, and were further analyzed in the EIR, included air quality, energy, hazards and hazardous materials, hydrology/water quality, noise, solid/hazardous waste, and transportation/traffic during construction activities. After further environmental analyses, the environmental resources where significant adverse environmental impacts would occur after implementation of mitigation measures were air quality and transportation/traffic during construction activities. Based on the analysis in the EIR, impacts on energy, hazards and hazardous materials, hydrology/water quality, noise, and solid/hazardous waste were determined not to be significant. Accordingly, both Findings and a Statement of Overriding Considerations are required for the potentially significant adverse air quality and transportation/traffic during construction activities impacts per CEQA Guidelines §15091 and §15093, respectively.

The Final EIR consists of an NOP/IS (August 10, 2007), a Draft EIR (March 2008), and a Health Risk Assessment (Volume II) (March 2008). The Final EIR includes a project description, the environmental setting, environmental impacts and mitigation measures, cumulative impacts, project alternatives, a hazards analysis (Appendix D of the Final EIR), a noise analysis (Appendix E of the Final EIR), a traffic analysis (Appendix F of the Final EIR), and responses to comments on the Draft EIR (Appendix G). All documents comprising the Final EIR for the proposed project are available at the SCAQMD, 21865 Copley Drive, Diamond Bar, California, 91765. These documents can also be obtained by contacting the SCAQMD's Public Information Center at (909) 396-2039 or by accessing the SCAQMD's CEQA webpages at http://www.aqmd.gov/ceqa/nonaqmd.html.

When considering for approval a proposed project that has one or more significant adverse effects, a public agency must make one or more written findings for each significant adverse effect, accompanied by a brief rationale for each finding (Public Resources Code §21081 and CEQA Guidelines §15091). The analysis in the Final EIR concluded that the proposed project has the potential to generate significant adverse air quality and transportation/traffic impacts during construction activities.

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

adopt a "Statement of Overriding Considerations" to approve a project with significant adverse environmental effects.

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

2.0 SUMMARY OF THE PROPOSED PROJECT

The proposed project modifications are outlined in this section. All components of the proposed project focus on increasing the reliability, energy efficiency, flexibility and capacity of specific Refinery equipment. The PRO Project includes modifications to existing specific process units, new process units, and also new infrastructure that supports and links these units to other processes, units or facilities throughout the Refinery.

2.1 PROPOSED PROCESS UNIT MODIFICATIONS

2.1.1 No. 2 Crude Unit

The No. 2 Crude Unit provides the initial separation of crude oil by distillation. The various distillates are then further refined in other processing units in the Refinery. The proposed modifications to the No. 2 Crude Unit include rerouting atmospheric PRDs to the proposed new Vapor Recovery and Safety Flare System. In addition, two knock-out drums will be added to the unit to collect, for recovery purposes, any liquids released from the PRDs in the No. 2 Crude Unit, the No. 2 RSU, and the Minalk/Merox Unit. The purpose of this modification is to voluntarily reduce potential emissions from PRDs that currently vent to the atmosphere in the event of a process upset.

2.1.2 No. 2 Residuum Stripper Unit

The No. 2 RSU processes the heavy hydrocarbons from the bottom of the No. 2 Crude Unit using vacuum distillation to produce various weight gas oils. The proposed modifications to the No. 2 RSU are limited to rerouting PRDs to the proposed new Vapor Recovery and Safety Flare System via the two new knock-out drums in the No. 2 Crude Unit. The purpose of this modification is to voluntarily reduce potential emissions from PRDs that currently vent to the atmosphere in the event of a process upset.

2.1.3 Minalk/Merox Unit

The Minalk/Merox Unit converts sulfur compounds (mercaptans) to disulfides using a catalyst. The proposed modifications to the Minalk/Merox Unit are limited to rerouting PRDs to the proposed new Vapor Recovery and Safety Flare System via a new knock-out drum in the No. 2 Crude Unit. The purpose of this modification is to voluntarily reduce

potential emissions from PRDs that currently vent to the atmosphere in the event of a process upset.

2.1.4 Waste Gas Compressors

The Waste Gas Compressors (WGCs) at the No. 2 Crude Unit are currently connected to the Low Sulfur Fuel Oil (LSFO) vapor recovery system and safety flare. As part of connecting PRDs to the New Safety Flare, the WGCs will be rerouted to the New Vapor Recovery and Safety Flare System. The purpose of this modification is to align all PRDs from the No. 2 Crude Unit, No. 2 RSU, Minalk/Merox Unit, and the WGCs to a common vapor recovery and safety flare system.

2.1.5 Fluidized Catalytic Cracking Unit

The purposes of the modifications to the FCCU are to increase reliability, consolidate existing equipment, more efficiently separate intermediate streams, increase production of CARB gasoline components, and to improve energy efficiency. The modifications and equipment additions include: installing a new motorized main air blower replacing the existing steam turbine driven main air blower (the existing equipment will be idled and removed from the existing permit); installing a new depropanizer column replacing three smaller existing distillation columns; installing a new deethanizer column; installing new pumps; and, installing new heat exchangers.

2.1.6 Alkylation Unit

The Alkylation Unit combines light olefins (propylene, butylene and pentenes) with isobutane to produce an alkylate product for use as a gasoline blending component. The proposed modifications to the Alkylation Unit include supplemental cooling that will be supplied by a new cooling tower and additional heat exchangers. The depropanizer, located in the older section of the Alkylation area, will be removed. This column is one of the three depropanizer columns being removed as part of FCCU upgrades. The purpose of the modifications is to improve reliability through more efficient cooling (i.e., heat removal) and improve product separation in the Unit.

2.1.7 Vacuum Residuum Desulfurization Unit

The VRDS Unit desulfurizes and denitrifies gas oil feedstock for the FCCU. The purpose of the modification to the VRDS Unit is to allow taking one of the parallel reactor trains out of service to replace the catalyst while the other train remains in service. The unit modifications and additions include: installing valve manifolds to separate the reactor trains; installing a new, parallel high pressure separator; re-piping the existing Recycle Hydrogen Heat Exchangers and Recycle Hydrogen Air Coolers to split them between the two trains; and, installing new facilities to allow sulfiding of fresh catalyst in one reactor train with the other train in operation. The unit modification includes installation of two new separator vessels, a new sulfiding recycle hydrogen compressor,

and a new recycle hydrogen air cooler. In addition, the existing VRDS Product Coolers will be re-piped so they can be used in the catalyst sulfiding loop.

2.1.8 ISOMAX Unit

The ISOMAX Unit converts light and intermediate gas oils into jet fuel, motor gasoline, and Liquefied Petroleum Gas (LPG). The unit will be modified to increase the feed capacity by approximately 10,000 barrels per day (BPD), and to produce two additional products, Ultra Low Sulfur Diesel (ULSD) fuel and desulfurized FCCU feed. The purpose of the modifications is to accommodate gas oil production and optimize output from the Unit. Modifications will be made to the Century Type ISOMAX Catalyst for deNitrification (CKN) and distillation sections. A Pressure Swing Absorption (PSA) Unit will be installed to recover hydrogen for reuse in existing Refinery hydrocracking and hydrotreating processes. Heaters in the ISOMAX Unit will be retrofitted with low nitrogen oxides (NOx) burners to reduce NOx emissions. Firing rates for the heaters will operate within existing permit limits.

2.1.9 Cogeneration Facilities

The Refinery currently operates a multi-train cogeneration plant to supply most of the electricity and steam used by processing equipment. To supplement electrical needs, electricity is purchased from offsite sources (e.g., SCE). The existing cogeneration facility will be expanded by an additional 49.9 megawatts (MW). The new 49.9 MW Cogen Train D includes a natural gas and refinery gas-fired turbine electric generator, a new steam-driven turbine electrical generator, feed gas compressors, knockout and surge pots, waste heat boilers (including duct burners) to generate steam, a carbon monoxide (CO) oxidation catalyst unit, and a Selective Catalytic Reduction (SCR) unit to control NOx emissions. Expansion of this facility will decrease the Refinery's need for offsite sources of electricity.

2.1.10 Railcar Loading/Unloading Rack

The Refinery currently ships and receives LPG by trucks and rail cars. As part of the PRO Project, the LPG Loading/Unloading Rack will be expanded by the addition of four new loading/unloading positions for added flexibility that will increase the ability to optimize CARB-gasoline blending.

2.1.11 Utility Improvements

SCE and the West Basin Municipal Water District (WBMWD) will improve systems to service the proposed project. SCE improvements expected to be made include adding new 66 kilovolt (kV) circuit breakers in their existing Chevmain Power Substation, new transformers at their existing ISOMAX Power Substation, about 500 feet of overhead or underground cables between the Chevmain Power Substation and the ISOMAX Power Substation, and a new transformer at their Chevgen Power Substation. WBMWD currently provides boiler feed and cooling tower water from secondary-treated effluent

from the Hyperion Wastewater Treatment Plant that has been further processed by filtration, chlorination, demineralization by reverse osmosis, and/or denitrification. Improvements as part of the PRO Project at WBMWD, include increasing reverse osmosis and denitrification water production facilities.

2.2 PROPOSED NEW PROCESS UNITS

2.2.1 Sulfur Recovery Facilities

Sour Water Stripper

A new SWS with a capacity of 300 gallons per minute (gpm) will be constructed to supplement the existing plants. This stripper will allow for increased processing of sour water and production of commercial grade sulfur. The overhead stream from the stripper, containing hydrogen sulfide (H_2S), ammonia and water vapor, will be fed to a new SRU.

Sulfur Recovery Unit

A new SRU with a capacity of 175 long tons per day will be installed to process increased amounts of H_2S to commercial grade, molten sulfur for sale. Ammonia in the feed stream to the SRU will be converted to atmospheric nitrogen and water and exhausted through the TGU to the atmosphere.

Tail Gas Unit

The exhaust from the SRU will be vented to a new TGU for further processing before discharging to the atmosphere. The TGU will include a new incinerator.

2.2.2 Vapor Recovery and Safety Flare System

A new closed relief system, including vapor recovery compressors and an elevated safety flare, will be installed that is designed to be capable of handling emergency releases from the equipment that is connected to it. The PRDs on the No. 2 Crude Unit, the No. 2 RSU, and the Minalk/Merox Unit that currently may vent to the atmosphere under upset conditions will be routed to this new Vapor Recovery and Safety Flare System. The existing WGCs currently routed to the LSFO vapor recovery system will be re-routed to this new Vapor Recovery and Safety Flare System. In addition, PRDs from the new SWS, SRU and TGU will be routed to this new Vapor Recovery and Safety Flare System. The recovered gases will be treated prior to being added to the existing refinery fuel gas system.

2.2.3 Additional Storage Capacity

The proposed project will require additional segregation and storage of intermediate hydrocarbon streams and products. A new LPG sphere (Tank 722), two new FCCU light gasoline tanks (Tanks 302 and 303), and a new ISOMAX diesel tank (Tank 447) with the

flexibility to store other products will be added. In addition, new pumps and piping will be added to transfer materials to and from the new tanks.

2.2.4 Cooling Tower

A new cooling tower with a water circulation rate of approximately 12,000 gpm will be constructed to support cooling needs at the existing Alkylation Unit, new SRU, new SWS, and new TGU.

2.2.5 Hydrogen Compression and Transfer Facilities

Hydrogen is currently produced onsite at the Refinery. Additional hydrogen compression and transfer facilities will be installed to supply Refinery units with hydrogen at the required pressures.

3.0 FINDINGS

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

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

The Final EIR identified two potentially significant adverse environmental impacts that cannot be reduced to a level of insignificance: (1) air quality emissions associated with construction activities; and (2) traffic associated with construction activities. The Final EIR also identified three potentially significant cumulative adverse environmental impacts that cannot be reduced to a level of insignificance: (1) cumulative air quality impacts associated with construction activities; (2) cumulative air quality impacts associated with operational activities; and, (3) cumulative traffic impacts associated with construction activities.

3.1.1 Construction emissions of carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NOx), particulate matter less than 10 microns in diameter (PM10), and particulate matter less than 2.5 microns in diameter (PM2.5) would exceed SCAQMD significance thresholds during maximum construction activity periods.

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

Explanation: The construction emissions of CO, VOCs, NOx, PM10, and PM2.5 are expected to exceed the applicable SCAQMD significance thresholds during peak construction activities (see Final EIR pages 4-1 through **4-27**). Nine mitigation measures to minimize these impacts were imposed on the proposed project and are set forth in this Mitigation, Monitoring and Reporting Plan.

Though these measures will not reduce construction emissions below the SCAQMD significance thresholds, no other feasible mitigation measures or project alternatives have been identified that would reduce the construction impacts to less than significant. Further, the construction emission calculations were based on conservative assumptions and will likely overestimate actual emissions. In addition, the construction emissions will not have a long-term adverse air quality impact because these emissions will cease following the completion of construction. Finally, the localized significance threshold analysis indicates that the proposed project will not generate significant adverse localized change in local ambient air quality for nitrogen dioxide (NO_2), CO, PM10, or PM2.5 impacts from construction activities associated with the proposed project. Therefore, no significant adverse localized impacts on air quality during construction are expected.

3.1.2 Traffic associated with construction activities could result in significant adverse transportation/traffic impacts.

Finding: The SCAQMD makes the following findings with respect to transportation/traffic impacts: (1) mitigation measures were included as part of the proposed project that would reduce the significant adverse traffic impacts, but not to insignificance; (2) such mitigation measures will be implemented by Chevron; and (3) no other feasible mitigation measures or project alternatives have been identified to minimize the potentially significant adverse traffic impacts associated with the proposed project.

Explanation: The proposed project could result in significant adverse impacts related to the traffic during construction (see Final EIR, pages 4-43 through 4-53). The traffic analysis is based on conservative assumptions that likely overestimate the traffic impacts. Actual impacts are expected to be less.

Chevron will use off-site parking structures and transport workers to the Refinery during peak construction activities to minimize traffic impacts at intersections adjacent to the Refinery. In addition, the construction work shift is scheduled to

begin at 6:30 a.m., so that traffic impacts during the morning peak hour will be avoided. Chevron will encourage voluntary ridesharing and public transit use to reduce single occupancy vehicle trips. Chevron will include a requirement in construction contracts regarding travel routes. Chevron will notify via fliers to delivery drivers and signage on-site regarding idling limitations and other restrictions. However, in addition to these requirements, there are no other feasible mitigation measures or project alternatives that could reduce significant adverse traffic impacts to insignificance.

3.1.3 Cumulative construction emissions of CO, VOC, NOx, PM10, and PM2.5 associated with the proposed PRO Project and other cumulative projects could result in significant adverse air quality impacts.

Finding: The SCAQMD makes the following findings with respect to this air quality impact: (1) project-specific mitigation measures were incorporated into the proposed project that would reduce significant adverse cumulative construction air quality impacts, but not to insignificance; (2) such mitigation measures are within the jurisdiction of the SCAQMD; (3) no other feasible mitigation measures are available to lessen the significant impact to air quality during construction; and (4) feasible mitigation measures have not been identified for other cumulative projects.

Explanation: The cumulative construction emissions of CO, VOC, NOx, PM10 and PM2.5 are expected to exceed the applicable SCAQMD significance thresholds (see Final EIR pages 5-7 through 5-9). Nine project-specific mitigation measures to minimize these impacts were imposed on the proposed PRO Project and are set forth in the Mitigation, Monitoring and Reporting Plan.

Though these measures will not reduce construction emissions below the SCAQMD significance thresholds, no other feasible mitigation measures or project alternatives have been identified. Chevron does not have control or the authority to control construction emissions from the other non-Chevron operated projects that were considered in the cumulative impacts analysis. For the cumulative projects listed where the SCAQMD is the lead agency, feasible mitigation measures will be imposed. However, most of the cumulative projects identified have another entity or agency (e.g., the City of El Segundo) acting as lead agency and implementing feasible mitigation measures. The construction emission calculations were based on conservative assumptions, assumed that all related projects were under construction at the same time, and will likely overestimate actual emissions. In addition, the construction emissions will not have a long-term adverse air quality impact because these emissions will cease following the completion of construction.

3.1.4 Cumulative operational emissions of CO, VOC, NOx, SOx, PM10, and PM2.5 associated with the PRO Project and other cumulative projects could result in significant adverse air quality impacts.

Finding: The SCAQMD makes the following findings with respect to this air quality impact: (1) mitigation measures were not incorporated into the proposed PRO Project because the proposed project operational emissions did not exceed the SCAQMD significance thresholds; and (2) feasible mitigation measures have not been identified for the other cumulative projects.

Explanation: The cumulative operational CO, VOC, NOx, SOx, PM10, and PM2.5 emissions are expected to exceed the applicable SCAQMD significance thresholds (see Final EIR pages 5-**9** through 5-11). The emissions from the proposed PRO Project have been limited to the extent feasible through the use of best available control technology (BACT). BACT, by definition, is the cleanest commercially available control equipment or technique and is required for new, modified, or relocated equipment pursuant to either Rule 1303 or Rule 2005. The use of BACT controls emissions to the greatest extent feasible for new and modified emission sources. In addition, emission offsets are required for new and modified permitted emission sources associated with the PRO Project by SCAQMD Regulation XIII and/or Regulation XX. Emission offsets are required for emission increases greater than one pound associated with stationary sources, thus, minimizing the impacts associated with emissions from stationary sources. In addition, the fugitive components of the proposed PRO Project will be required to be included in an inspection and maintenance program, as required by SCAQMD Rule 1173, to ensure that the equipment is properly maintained. Therefore, additional VOC emission reductions (through mitigation measures) from fugitive components associated with the proposed project equipment are not feasible.

Stationary sources of emissions that require permits for the other cumulative projects will also be subject to BACT requirements, offset requirements, and inspection and maintenance programs, as applicable, though these measures may not reduce cumulative operational emissions below the SCAQMD significance thresholds. No other feasible mitigation measures or project alternatives have been identified that would reduce significant adverse cumulative operational impacts to less than significant levels.

3.1.5 Cumulative construction traffic associated with the proposed PRO Project and other cumulative projects could result in significant cumulative traffic impacts.

Finding: The SCAQMD makes the following findings with respect to cumulative traffic impacts: (1) project-specific mitigation measures were included as part of the proposed project that would reduce the significant adverse traffic impacts, but not to insignificance; (2) such mitigation measures will be implemented by Chevron; and (3) no other feasible mitigation measures or project alternatives have been identified to minimize the potentially significant adverse traffic impacts associated with the proposed project. Cumulative project impacts could be

significant but impacts from the cumulative projects are not known. However, the PRO Project is expected to provide the major portion of the traffic related to construction activities, so cumulative construction impacts on traffic are considered significant.

Explanation: The proposed project could result in significant adverse impacts related to the traffic during construction that could be cumulatively considerable (see Final EIR, pages 5-38 through 5-39). The traffic analysis is based on conservative assumptions that likely overestimate the traffic impacts. Actual impacts are expected to be less.

Chevron will use off-site parking structures and transport workers to the Refinery during peak construction activities to minimize traffic impacts at intersections adjacent to the Refinery. In addition, the construction work shift is scheduled to begin at 6:30 a.m., so that traffic impacts during the morning peak hour will be avoided. Chevron will encourage voluntary ridesharing and public transit use to reduce single occupancy vehicle trips. However, in addition to these requirements, there are no other feasible mitigation measures that could reduce significant adverse cumulative traffic impacts to insignificance.

3.2 POTENTIALLY SIGNIFICANT IMPACTS WHICH CAN BE MITIGATED TO A LEVEL OF INSIGNIFICANCE

3.2.1 Operational VOC emissions from the proposed project are expected to result in a potentially significant adverse impact that can be reduced to less than significant.

Finding: The SCAQMD makes the following findings with respect to this impact: (1) compliance with Rule 1303 offset requirements would reduce the significant adverse air quality impacts to less than significance; and (2) enforcement of the Rule 1303 offset requirement is within the jurisdiction of the SCAQMD.

Explanation: The proposed project could result in significant adverse air quality impact from VOC emissions during the operational phase. VOC emissions from the project are required to be offset pursuant to SCAQMD Ruler 1303. The offsets are based on an established New Source Review program. Operational VOC emissions from the proposed project that do not require offsets are from mobile sources. Therefore, the effect of the offsets is that the potentially significant adverse air quality impacts will be reduced to less than significant.

3.2.2 Operational greenhouse gas (GHG) emissions from the proposed project are expected to result in a potentially significant adverse cumulative impact that can be reduced to less than significant.

Finding: The SCAQMD makes the following findings with respect to this impact: (1) a mitigation measure was incorporated into the project that would reduce the

significant adverse impacts to less than significance; and (2) such mitigation measure is within the jurisdiction of the SCAQMD.

Explanation: The proposed project could result in cumulatively significant adverse GHG emissions impact during the operational phase. A mitigation measure will be imposed that requires Chevron to offset GHG emissions by funding GHG emission reduction projects. The effect of this mitigation measure is that the potentially significant adverse cumulative GHG impacts will be reduced to less than significant.

3.3 IMPACTS ASSOCIATED WITH ALTERNATIVES

3.3.1 Project alternatives that would reduce the potentially significant impacts are not available.

Finding: The SCAQMD finds that the identified alternatives would not feasibly attain most of the basic objectives of the proposed project, nor would it result in fewer or less severe environmental impacts.

Explanation: Potential adverse environmental impacts from five project alternatives were analyzed and it was determined that no feasible project alternatives were identified that would **FEASIBLY ATTAIN MOST OF THE BASIC OBJECTIVES** of the project with fewer or less severe environmental impacts than the proposed project (see Final EIR, pages 6-1 through 6-18).

Alternatives evaluated in the EIR for the proposed project include the No Project Alternative, No Additional Sulfur Recovery Facilities Alternative, Eliminate Vapor Recovery and Safety Flare System Alternative, Eliminate FCCU and Alkylation Unit Modifications Alternative, and Eliminate the New 49.9 MW Cogeneration Unit Alternative. No feasible alternatives have been identified that would reduce the proposed project's significant air quality or traffic impacts to less than significant while achieving the basic objectives of: (1) improving the energy efficiency, performance, and reliability of process units; (2) allowing the Refinery to efficiently and reliably process a wider range of crude oils, including higher sulfur-containing crude oils; (3) producing low-sulfur fuel products and increasing production of commercial grade elemental sulfur; (4) improving the management of blending components of CARB fuels; and (5) reducing the potential for atmospheric releases and related emissions from PRDs in the No. 2 Crude Unit, No. 2 RSU, and the Minalk/Merox Unit. Consequently, the proposed project is preferred over the alternatives because it will ensure that Chevron will be able to achieve the primary objectives of the proposed project.

3.4 FINDINGS CONCLUSION

Changes or alterations have been incorporated into the proposed project to mitigate or minimize the potentially significant adverse environmental effects associated with certain

impacts, i.e., project-specific and cumulative air quality impacts during construction and project-specific and cumulative traffic impacts associated with construction. No additional feasible mitigation measures or alternatives to the proposed project, other than those already included in the Final EIR, have been identified that can further mitigate the potentially significant adverse project impacts on air quality and traffic while meeting the basic objectives of the proposed project.

All feasible mitigation measures identified in the Final EIR have been adopted as set forth in the Mitigation, Monitoring and Reporting Plan. The analysis in the Final EIR also indicates that the alternatives would not reduce to insignificant levels the significant impacts identified for the proposed project.
The proposed project is intended to improve the energy efficiency, performance, and reliability of process units; allow the Refinery to efficiently and reliably process a wider range of crude oils, including higher sulfur-containing crude oils; produce low-sulfur fuels and increase production of commercial grade elemental sulfur; improve the management of blending components of CARB fuels; and, reduce the potential for atmospheric releases and related emissions from PRDs in the No. 2 Crude Unit, No. 2 RSU, and the Minalk/Merox Unit. Based on these criteria, the SCAQMD finds that the proposed project achieves the best balance between minimizing potential adverse environmental impacts and achieving the overall project objectives. The SCAQMD further finds that all of the findings presented here are supported by substantial evidence in the record.

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

4.0 STATEMENT OF OVERRIDING CONSIDERATIONS

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

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

(1) The proposed project includes improving energy efficiency in process units in the Refinery. In addition, the proposed project departs from the business-as-usual approach of purchasing electricity and adding a boiler to provide additional steam by installing a cogeneration unit. The inclusion of a cogeneration unit in the project will generate less greenhouse gas emissions than the business-as-usual approach and the GHG emissions from the proposed project will be offset by GHG emission reduction projects funded by the project proponent through the SCAQMD.

(2) The proposed project will improve performance and reliability of Refinery process units and management of blending components of CARB fuels, which will provide for more consistent supply of CARB-compliant fuels within southern California.

(3) Pressure relief devices in the No. 2 Crude Unit, No. 2 RSU, and Minalk/Merox Unit will be tied into a new vapor recovery and safety flare system improving the safety of the Units and reducing potential VOC emissions.

(4) Significant adverse air quality impacts during the construction phase, both project specific and cumulative, will be eliminated following the completion of the construction activities.

(5) To reduce significant air quality impacts during construction to the maximum extent feasible, the SCAQMD evaluated a wide range of potential mitigation measures and identified nine feasible mitigation measures that will be imposed on the proposed PRO project.

(6) Although the proposed project is expected to increase construction emissions in the short term, the proposed project does not create localized air impacts during construction activities.

(7) Significant adverse traffic impacts during the construction phase, both project specific and cumulative, will be eliminated following completion of construction activities.

(8) The analyses of the significant adverse impacts were based on conservative assumptions regarding the construction and operation of the proposed project. The actual project impacts (e.g., construction emission estimates) are expected to be less than estimated in the EIR. Further, the traffic impacts during construction

> are based on worst-case peak-day assumptions that do not include reductions due to carpooling, which is a common practice in the construction industry.

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

5.0 MITIGATION, MONITORING AND REPORTING PLAN

When a public agency conducts an environmental review of a proposed project in conjunction with approving it, the lead agency shall adopt a program for monitoring or reporting on the measures it has imposed to mitigate or avoid significant adverse environmental effects per the requirements of CEQA Guidelines §15097 and Public Resources Code §21081.6. PRC §21081.6 states in part that when making the findings required by §21081(a) or when adopting a ND pursuant to §21080(c)(2):

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

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

5.1 Air Quality Impacts and Mitigation Measures

Construction-related emissions of CO, VOCs, NOx, PM10, and PM2.5 would exceed the applicable SCAQMD significance thresholds for daily construction emissions. Emission sources include worker vehicles, heavy construction equipment, and grading activities. The mitigation measures identified in the following discussion are intended to minimize the emissions associated with these emission sources. No feasible mitigation measures have been identified to reduce emissions to insignificance. CEQA Guidelines §15364 defines feasible as " . . . capable of being accomplished in a successful manner within a

reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

On-Road Mobile Sources:

A-1 Develop a Construction Emission Management Plan for the proposed project. The Plan shall include measures to minimize emissions from vehicles including, but not limited to consolidating truck deliveries, prohibiting truck idling in excess of five minutes, description of truck routing, description of deliveries including hours of delivery, description of entry/exit points, locations of parking, and construction schedule.

Off-Road Mobile Sources:

A-2 Prohibit construction equipment from idling longer than five minutes at the Refinery.

A-3 Use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible. The project has incorporated this measure to the extent predictable, but will continue to implement where opportunities arise.

A-4 Maintain construction equipment tuned up and with two to four degree retard diesel engine timing.

A-5 Use electric welders instead of gas or diesel welders in portions of the Refinery where electricity is available. The project has incorporated this measure to the extent predictable, but will continue to implement where opportunities arise.

A-6 Use on-site electricity rather than temporary power generators in portions of the Refinery where electricity is available.

A-7 Prior to construction, Chevron will retrofit cranes of 200 hp and greater with diesel particulate filters that will reduce PM10 emissions. In addition, Chevron will evaluate the feasibility of retrofitting or using Tier 3 engines for the off-road construction equipment 50 to 200 hp that will be operating for significant periods. Retrofit technologies such as selective catalytic reduction, oxidation catalysts, air enhancement technologies, etc., will be evaluated. Such technologies will be required if they are commercially available and can feasibly be retrofitted onto construction equipment.

A-8 Suspend use of all PRO construction activities that generate air pollutant emissions during first stage smog alerts.

PM10 Emissions from Grading, Open Storage Piles, and Unpaved Roads:

A-9 Develop a fugitive dust emission control plan. Measures to be included in the plan include, but are not limited to the following: (1) water active construction site three times per day, except during periods of rainfall. Watering construction sites two times per day complies with SCAQMD Rule 403 and provides about a 50 percent emission reduction. Watering construction sites three times per day will reduce PM10 emissions by an additional 18 percent (total control of 68 percent). These control efficiencies were reflected in the project emission calculations so no further emission reduction credit has been taken into account herein; (2) enclose, cover, water twice daily, or apply approved soil binders according to manufacturer's specifications to exposed piles (i.e., gravel, dirt and sand) with a five percent or greater silt content. Implementation of this mitigation measure would reduce PM10 emissions 30 to 74 percent (SCAQMD, 1993); and (3) suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour. The emission reductions associated with this mitigation measure cannot be quantified (SCAQMD, 1993).

Other Mitigation Measures:

Other mitigation measures were considered but were rejected because they would not further mitigate the potential significant impacts. These mitigation measures include: (1) provide temporary traffic control during all phases of construction activities (traffic safety hazards have not been identified); (2) implement a shuttle service to and from retail services during lunch hours (most workers eat lunch on-site and lunch trucks will visit the construction site); (3) use methanol, natural gas, propane or butane powered construction equipment (equipment is not CARB-certified or commercially available); and (4) pave unpaved roads (most Refinery roads are already paved).

5.2 Air Quality Mitigation Monitoring and Reporting

Implementing Party: The SCAQMD finds that air quality mitigation measures A-1 to A-9 during construction will be implemented by Chevron.

Monitoring Agency: The SCAQMD has made these mitigation measures fully enforceable through a legally binding instrument, Attachment 2 for the Chevron Products Company El Segundo Refinery Product Reliability and Optimization Project Declaration of Certification, signed by the Chevron Refinery Manager and the SCAQMD's Executive Officer. The SCAQMD through its discretionary authority to issue and enforce permits for the proposed project will ensure compliance with these mitigation measures. Mitigation monitoring and reporting will be accomplished as follows:

MMA-1: CONSTRUCTION EMISSION MANAGEMENT PLAN

Chevron shall develop and submit a Construction Emission Management Plan to the SCAQMD for approval prior to starting construction activities. Upon approval, Chevron shall train all personnel subject to the requirements set forth in the Construction Emission Management Plan on how to comply with the requirements in the plan, and document that training. The SCAQMD may conduct routine inspections of the site to verify compliance.

The Construction Emission Management Plan shall include all of the following: description of construction traffic control methods such as flag persons, contractor entry/exit gates, etc.; construction schedule including hours of operation; description of truck routing; and, description of deliveries including hours of delivery.

Traffic Control

Traffic requiring entrance onto the Refinery property will be directed toward any one of the multiple entry gates at the Refinery, so that congestion, as well as associated air pollution, will be minimized.

Points of entry will be selected to maximize Refinery security and reduce traffic-associated emissions. Chevron Procurement will consider delivery items, time of delivery, in-plant congested areas, surrounding area traffic, and gate security issues when assigning a gate entry location.

On-site parking will be used to the maximum extent available. Buses will shuttle workers to and from the project site from the assigned off-site parking locations. No on-street parking (i.e., off the Refinery site) will be allowed.

Construction Schedule

In an effort to reduce traffic by construction workers, Chevron has requested its contractors work a 6:30 a.m. to 5:00 p.m. shift. Most work will be scheduled to consist of a five-day work week and a 10-hour work day. In addition, some work will be scheduled to include a night shift, which will begin after 5:00 p.m. and end around 3:30 a.m. Critical path work may require a deviation from the aforementioned workweek and start- and stop-times; however, deviations will be minimized.

During process unit shutdowns, extended work shifts and night shifts, scheduled six to seven days per week, are anticipated. This construction work schedule will continue to minimize the travel time during peak travel periods.

Trip Reduction Plan

No feasible mitigation has been identified for the emissions from on-road vehicle trips. CEQA Guidelines §15364 defines feasible as ". . . capable of being accomplished in a successful manner." No feasible mitigation measures for off-site motor vehicles have been identified. Health and Safety Code §40929 prohibits the air districts and other public agencies from requiring an employee trip reduction program making such mitigation infeasible. However, Chevron will encourage voluntary ridesharing and public transit use to reduce single occupancy vehicle trips.

Delivery of Equipment and Materials

Chevron will coordinate the delivery of equipment and materials to avoid peak hour traffic, whenever possible. That is, delivery of construction materials to the site will be scheduled to occur during off-peak periods (i.e., from 8:30 a.m. until 4:00 p.m. Monday through Friday). Chevron will request that equipment and material deliveries be minimized between the hours of 7:00 to 8:00 a.m. and 4:30 p.m. to 5:30 p.m. to reduce traffic in and out of the facility during high traffic peak times. Exceptions will be made for trucks carrying time-critical materials, e.g., concrete delivery and soil hauling (which eliminates the double handling or on-site stock-piling of soil, preventing it from being moved from place to place due to lack of adequate staging area, and subsequent removal at a later time via trucks). Delivery routes and schedules will be developed pursuant to the California Department of Transportation regulations.

It may be necessary to handle a limited amount of equipment as wide or special loads. These deliveries are subject to California Department of Transportation regulations and will be coordinated with local police departments. These trips will be scheduled to avoid peak hour traffic.

MMA-2: PROHIBIT TRUCKS FROM IDLING LONGER THAN FIVE MINUTES AT THE REFINERY

Chevron will notify all vendors that during deliveries, truck idling time will be limited to no longer than five minutes. For any delivery that is expected to take longer than five minutes, Chevron will require the truck's operator to shut off the engine. Chevron will notify the vendors of these delivery requirements at the time that the purchase order is issued and again via flyers when trucks enter the gates of the Refinery. To further ensure that drivers understand the truck idling requirement, signs will be posted at the Refinery gates stating idling longer than five minutes is not permitted.

MMA-3: USE ELECTRICITY OR ALTERNATE FUELS FOR ON-SITE MOBILE EQUIPMENT INSTEAD OF DIESEL EQUIPMENT TO THE EXTENT FEASIBLE

Chevron shall evaluate the use of electricity and alternate fuels for on-site mobile construction equipment prior to the commencement of construction activities, provided that suitable equipment is available for the proposed project. Equipment vendors will be contacted to determine the commercial availability of electric or alternate-fueled construction equipment. Equipment that will use electricity or alternate fuels will be included in the Construction Emission Management Plan.

The potential equipment that may be considered includes:

- Electric scissor lifts
- Electric golf carts
- Bicycles
- Boom lifts
- Electric Welders

Chevron limits the number of personal and company vehicles allowed to enter the Refinery beyond the parking lots. This restriction helps minimize on-site emissions and promotes the use of ride sharing and alternate-fueled transportation such as bicycles and electric golf carts.

MMA-4: MAINTAIN CONSTRUCTION EQUIPMENT, TUNED UP AND WITH TWO TO FOUR DEGREE RETARD DIESEL ENGINE TIMING

Chevron, in cooperation with the construction contractors, will maintain vehicle and equipment maintenance records for the construction portion of the proposed project. All construction vehicles must be maintained in compliance with the manufacturer's recommended maintenance schedule. Chevron will maintain their construction equipment and the construction contractor will be responsible for maintaining their equipment and maintenance records. All maintenance records for the Refinery and the construction contractor will remain on-site for a period of at least two years from completion of construction.

Chevron, the construction contractor, and the equipment vendor will evaluate the practicality of retarding diesel engine timing on off-road construction equipment for the purpose of reducing emissions.

MMA-5: USE ELECTRIC WELDERS INSTEAD OF GAS OR DIESEL WELDERS IN PORTIONS OF THE REFINERY WHERE ELECTRICITY IS AVAILABLE.

Chevron and the construction contractor will conduct a survey of the proposed project area to assess whether the existing infrastructure can provide access to electricity, as available, within the Refinery. Construction areas within the

Refinery where electricity is not available will be identified on a site plan as part of the Construction Emission Management Plan. The use of gasoline or diesel welders shall be prohibited in areas of the Refinery that are shown to have access to electricity. Chevron will assess the number of electrical welding receptacles available, and will indicate whether diesel generators or welders are required for the proposed project. Chevron shall include in all construction contracts the requirement that diesel welders are only allowed to operate in the portions of the Refinery as identified on the site plan as not being accessible to electric power. If gasoline or diesel welders are actually used, Chevron shall maintain welder records that indicate the location where welders are operated for a period of at least two years from completion of construction.

MMA-6: USE ON-SITE ELECTRICITY RATHER THAN TEMPORARY POWER GENERATORS IN PORTIONS OF THE REFINERY WHERE ELECTRICITY IS AVAILABLE.

The use of temporary power generators shall be prohibited in areas of the Refinery that have existing infrastructure to provide access to electricity. Construction areas within the Refinery where electricity is not available will be identified on a site plan as part of the Construction Emission Management Plan. The use of temporary power generators within these identified areas of the Refinery will be allowed. The use of temporary power generators outside of these identified areas shall be prohibited. Chevron shall include in all construction contracts the requirement that the use of temporary power generators is prohibited in certain portions of the Refinery as identified on the site plan. Chevron shall maintain records that indicate the location where the generators are operated, if at all, for a period of at least two years from completion of construction.

MMA-7: PRIOR TO CONSTRUCTION, CHEVRON WILL RETROFIT CRANES OF 200 HP AND GREATER WITH DIESEL PARTICULATE FILTERS THAT WILL REDUCE PM10 EMISSIONS. IN ADDITION, CHEVRON WILL EVALUATE THE FEASIBILITY OF RETROFITTING OR USING TIER 3 ENGINES FOR THE OFF-ROAD CONSTRUCTION EQUIPMENT 50 TO 200 HP THAT WILL BE OPERATING FOR SIGNIFICANT PERIODS. RETROFIT TECHNOLOGIES SUCH AS SELECTIVE CATALYTIC REDUCTION, OXIDATION CATALYSTS, AIR ENHANCEMENT TECHNOLOGIES, ETC., WILL BE EVALUATED. SUCH TECHNOLOGIES WILL BE REQUIRED IF THEY ARE COMMERCIALLY AVAILABLE AND CAN FEASIBLY BE RETROFITTED ONTO CONSTRUCTION EQUIPMENT.

All construction equipment diesel engines greater than 100 hp shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13,

§2423(b)(1) unless such engine is not available for a particular item of equipment within the southern California area for use for the needed construction equipment for the proposed project. Construction equipment engines will be required to meet Tier 1 California standards if equipment with engines that meet Tier 2 standards is not available.

Prior to construction, Chevron will retrofit cranes of 200 hp and greater with diesel particulate filters that will reduce PM10 emissions. In addition, Chevron shall evaluate the feasibility of equipping 50 to 200 hp-sized equipment with emission control devices (e.g., diesel particulate filters, etc.) or Tier 3 engines. If determined to be feasible, Chevron will retrofit 50 to 200 hp-sized equipment, unless certified by engine manufacturers that the use of such devices is not practical or safe for specific engine types. Chevron shall submit to the SCAQMD, prior to initiation of construction, information in writing on why particulate filters are not practical. For purposes of this condition, the use of such devices is "not practical" if, among other reasons:

(1) There is no available particulate filter that has been certified by either the California Air Resources Board or U.S. Environmental Protection Agency for the engine in question; or
(2) The construction equipment is intended to be on-site for 30 days or less.

The use of a particulate filter may be terminated immediately if one of the following conditions exists:

(1) The use of the particulate filter is excessively reducing normal availability of the construction equipment due to increased downtime for maintenance, and/or reduced power output due to an excessive increase in backpressure;
(2) The particulate filter is causing or is reasonably expected to cause significant engine damage; or
(3) The particulate filter is causing or is reasonably expected to cause a significant risk to workers or the public.

During construction of the proposed project and for two years following completion of construction, Chevron shall keep records onsite of applicable compliance activities to demonstrate the steps taken to assure compliance with Mitigation Measure A-7 as specified in Table 1.

MMA-8: SUSPEND ALL CONSTRUCTION ACTIVITIES THAT GENERATE AIR EMISSIONS DURING FIRST STAGE SMOG ALERTS.

If and when any first stage smog alert or greater occurs, Chevron will record the date and time of each alert, will suspend all construction activities that generate emissions, and will record the date and time when the use of construction

equipment and construction activities are suspended. This log shall be maintained on-site for a period of at least two years from completion of construction.

MMA-9: DEVELOP A FUGITIVE DUST EMISSION CONTROL PLAN.

Chevron will develop and submit to the SCAQMD for approval a fugitive dust emission control plan prior to beginning construction activities. The plan must include a log that tracks the site watering activities and identifies the time and day when winds exceed 25 mph. The log must include the day, time and location of the active construction sites and unpaved roads that were watered. Watering of active construction sites will be completed three times a day. However, construction sites will not be watered during periods of rainfall. Signs indicating a maximum speed limit of 15 miles per hour shall be posted by Chevron between the truck entrance to the Refinery and the equipment staging areas. The log will be maintained on-site for a period of at least two years from completion of construction.

Other mitigation measures were considered but were rejected because they would not further mitigate the potential significant impacts. These mitigation measures include: (1) provide temporary traffic control during all phases of construction activities (traffic safety hazards have not been identified); (2) implement a shuttle service to and from retail services during lunch hours (most workers eat lunch on-site and lunch trucks will visit the construction site); (3) use methanol, natural gas, propane or butane powered construction equipment (equipment is not CARB-certified or commercially available); and (4) pave unpaved roads (most Refinery roads are already paved).

5.3 Cumulative GHG Emissions Impacts and Mitigation Measures

The proposed project has the potential to generate significance adverse cumulative GHG emission impacts. The following mitigation measure is imposed to reduce GHG emission impacts to less than significant.

GHG-1 To further offset GHG emissions from the PRO Project with the new Cogen Train D at the Refinery, Chevron shall offset the GHG emissions resulting from the proposed PRO Project through the funding of CO_2 emission reduction projects. Chevron will make an initial contribution to the SCAQMD of $1,500,000 to produce verifiable and quantifiable permanent GHG emission reductions, for example, which could include energy efficiency projects such as cogeneration facilities, solar collectors, wind turbines, biogas generators, geothermal energy generation, hydroelectric energy generation, biosolids energy production, transportation efficiency or other GHG emission reduction projects and, thus, offset the net increase in the PRO Project GHG emissions. Considering that the current market value for GHG emission credits is about $5.00 per metric ton of GHG emissions, this amount is expected to more than

cover the funding necessary to fully offset Chevron's GHG emissions from the proposed PRO Project to zero.

The SCAQMD shall evaluate the GHG emission reduction projects and the credit market and, by June 30, 2010 (i.e., when the PRO Project is anticipated to become fully operational), will make a determination as to whether sufficient funds have been paid by Chevron to fully offset the GHG emissions for the PRO Project. Chevron may be required to fund any shortfall in the cost for emission credits to fully offset the GHG emissions generated by the proposed project over the $1,500,000 initial payment, up to a maximum of 20 percent over the original payment or $1.8 million, which represents approximately a 100 percent premium over current market value. In addition, GHG mitigation projects completed by Chevron by December 31, 2010, not otherwise required by local, state, or federal regulations, can be used to offset GHG emission reduction shortfalls, if necessary, and the financial contribution to fund such offsets would be adjusted accordingly.

The initial mitigation fee, which is enforced as a mitigation measure in the air quality permit conditions, shall be paid to the SCAQMD no later than December 31, 2008. These GHG mitigation fees shall be used to fund projects preferentially in the district, as certified by the SCAQMD, to produce verifiable and quantifiable GHG reductions.

5.4 Cumulative GHG Emission Impacts Mitigation Monitoring and Reporting

Implementing Party: The SCAQMD finds that cumulative GHG mitigation measure GHG-1 will be financed by Chevron but the funding of the GHG emission reduction projects will be implemented by the SCAQMD.

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

MMGHG-1: CHEVRON TO CONTRIBUTE $1,500,000 TO THE SCAQMD TO PRODUCE VERIFIABLE AND QUANTIFIABLE PERMANENT GHG EMISSION REDUCTIONS

Chevron will contribute $1,500,000 to the SCAQMD by December 31, 2008. The SCAQMD shall evaluate the GHG emission reduction projects funded by the contribution and, by June 30, 2010 (i.e., when the PRO Project is anticipated to become fully operational), will make a determination as to whether sufficient funds have been paid by Chevron to fully offset the GHG emissions for the PRO Project. Chevron may be required to fund any shortfall in the cost for emission credits to fully offset the GHG emissions generated by the proposed project over the $1,500,000 initial payment, up to a maximum of 20 percent over the original payment or $1.8 million, which represents approximately a 100 percent premium

over current market value. Chevron will provide the SCAQMD with information on specific GHG projects completed by Chevron by November 30, 2010, not otherwise required by local, state, or federal regulations. The Chevron reductions can be used to offset the GHG emission reduction shortfalls, if necessary, and the financial contribution to fund such offsets would be adjusted accordingly.

6.0 CONCLUSION

During construction of the proposed project and for two years following completion of construction, Chevron will maintain records on-site of applicable compliance activities to demonstrate the steps taken to assure compliance with imposed Mitigation Measures as specified in Table 1. Chevron will be required to submit quarterly reports to the SCAQMD during the construction phase that identifies the construction progress, includes all required logs, inspection reports, and monitoring reports, identifies any problems, and provides solutions to problems, as necessary. SCAQMD staff and Chevron will evaluate the effectiveness of this monitoring program during the construction period. If either the monitoring program or the mitigation measures as set forth above are deemed inadequate, the SCAQMD or another responsible agency may require Chevron to employ additional or modified monitoring measures and/or measures to effectively mitigate identified significant adverse impacts to the levels identified in the Final EIR.

Table 1
Mitigation, Monitoring and Reporting Plan for Chevron El Segundo Refinery

Mitigation Measure/Implementation Requirement	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A-1/ Schedule truck deliveries of over-sized equipment and materials for non-peak a.m. and p.m. periods (i.e., avoid deliveries between 7:00 a.m. – 8:00 a.m. and 4:30 p.m. – 5:30 p.m. periods), except for time-sensitive materials	Chevron	Maintain records of the date and time of each delivery of over-sized equipment and materials.	1. SCAQMD 2. SCAQMD 3. Daily
A-1/Limit access to and from the construction site.	Chevron	Submit plot plan to SCAQMD that indicates access points to and from the construction site. Maintain records documenting that all construction contractors and subcontractors have been directed to use only specified access points.	1. SCAQMD 2. SCAQMD 3. Prior to the start of construction
A-1/Provide sufficient parking on the refinery site or other local site to accommodate all the construction employees, and do not permit on-street parking	Chevron	Submit plot plan to SCAQMD that indicates location(s) of construction employee parking and number of parking spaces available. Maintain records that all construction contractors and subcontractors have been directed to park only in designated areas and are not permitted to use on-street parking.	1. SCAQMD 2. SCAQMD 3. Prior to the start of construction

Table 1 (continued)
Mitigation, Monitoring and Reporting Plan for Chevron El Segundo Refinery

Mitigation Measure/Implementation Requirement	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A-1/Schedule delivery of construction materials to the site to occur during off-peak periods (i.e. from 8:30 a.m. until 4:00 p.m.) and/or after 5:30 p.m. and before 7:00 a.m., except for time-sensitive materials.	Chevron	Maintain records of the date and time of each construction material delivery.	1. SCAQMD 2. SCAQMD 3. Daily
A-1/Record number of construction personnel on-site.	Chevron	Maintain records of number of construction personnel on-site.	1. SCAQMD 2. SCAQMD 3. Daily
A-1/Record number of delivery trucks and haul trucks	Chevron	Maintain records of number of delivery trucks and haul trucks entering the refinery.	1. SCAQMD 2. SCAQMD 3. Daily
A-2/Notify vendors that truck operators are prohibited from idling longer than five minutes.	Chevron	Prepare standard notification letter that explains idling limitation during deliveries and provide copy to all vendors. Post signs on-site.	1. SCAQMD 2. SCAQMD 3. At time purchase order is issued
A-3/Identify on-site mobile construction equipment that will use electricity or alternate fuels.	Chevron	Maintain records of on-site mobile construction equipment as follows: 1. Equipment ID; 2. Equipment type; 3. Equipment manufacturer and model; 4. Engine horsepower rating 5. Power source/Fuel type.	1. SCAQMD 2. SCAQMD 3. Daily

Table 1 (continued)
Mitigation, Monitoring and Reporting Plan for Chevron El Segundo Refinery

Mitigation Measure/Implementation Requirement	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A-3/Restrict the number of personal and company vehicles entering the Refinery beyond the parking lots.	Chevron	Maintain records of number of personal entering the Refinery. Chevron will restrict drive in authorization for contractors, to only those with specific permission.	1. SCAQMD 2. SCAQMD 3. Daily
A-4/Identify construction equipment that will undergo retarding of diesel engine timing for the purpose of reducing emissions.	Chevron	Submit to SCAQMD a letter that identifies the construction equipment that will undergo retarding of diesel engine timing as follows: 1. Equipment ID; 2. Equipment type; 3. Equipment manufacturer and model; 4. Engine horsepower rating 5. Power source/Fuel type.	1. SCAQMD 2. SCAQMD 3. Submit letter to SCAQMD prior to scheduled use in the field and quarterly thereafter
A-4/Schedule periodic maintenance activities for all vehicle and construction equipment, including regular tune-ups and retard diesel engine timing.	Chevron	Maintain records of maintenance activities for all vehicle and construction equipment.	1. SCAQMD 2. SCAQMD 3. Daily

Table 1 (continued)
Mitigation, Monitoring and Reporting Plan for Chevron El Segundo Refinery

Mitigation Measure/Implementation Requirement	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A-5/Use electric welders where existing infrastructure to provide access to electricity is available.	Chevron	Submit to SCAQMD a site plan that identifies the construction areas within the Refinery where electricity is not available.	1. SCAQMD 2. SCAQMD 3. Prior to scheduled use in the field
A-5/Identify diesel welders used during construction.	Chevron	Maintain records of diesel welders used during construction that specify the following: 1. Equipment ID; 2. Welder type; 3. Manufacturer and model number 4. Date, time and duration of operation 5. Location within the refinery where operated 6. Amount of fuel used (applies to non-electric welders)	1. SCAQMD 2. SCAQMD 3. Daily
A-6/Use on-site electricity instead of temporary power generators where existing infrastructure to provide access to electricity is available.	Chevron	Submit to SCAQMD a site plan that identifies the construction areas within the Refinery where electricity is not available.	1. SCAQMD 2. SCAQMD 3. Prior to scheduled use in the field

Table 1 (continued)
Mitigation, Monitoring and Reporting Plan for Chevron El Segundo Refinery

Mitigation Measure/Implementation Requirement	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A-6/Identify temporary diesel power generators used, the equipment rating, the date, time and duration of operation, and the location within the refinery where operated.	Chevron	Maintain records of temporary power generators used during construction by identifying each unit as follows: 1. Equipment ID; 2. Generator type; 3. Equipment manufacturer and model; 4. Engine horsepower rating 5. Date on-site and hours of operation 6. Type and amount of fuel used 7. Equipment location	1. SCAQMD 2. SCAQMD 3. Weekly
A-7/Evaluate feasibility of retrofitting large 50 to 100 hp-sized construction equipment. Verify that each diesel engine meets, Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines or that such an engine is not available. Verify that each construction equipment diesel engine that does not meet Tier 2 standards, meets Tier 1 standards or that such engine is not available.	Chevron	Submit a list to SCAQMD of all large off-road construction equipment that specifies: 1. Equipment ID; 2. Equipment description/ type; 3. Manufacturer and model number; 4. Engine horsepower rating 5. Engine emission certification 6. If not certified to Tier 2 or better, documentation that a California Tier 2 engine is not available. Retrofit method or reason why the equipment will not be retrofitted.	1. SCAQMD 2. SCAQMD 3. Prior to scheduled use in the field and quarterly thereafter

Table 1 (continued)
Mitigation, Monitoring and Reporting Plan for Chevron El Segundo Refinery

Mitigation Measure/Implementation Requirement	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A-7/ Equip diesel construction engines 100 hp or above, scheduled to operate one month or greater, that do not meet California Tier 1 or 2 standards with particulate filters.	Chevron	Submit a list to SCAQMD of all diesel-fueled equipment rated at 100 hp that do not meet California Tier 1 standards, that specifies: 1. Equipment ID; 2. Equipment description/type; 3. Manufacturer and model; 4. Engine horsepower rating A statement that the engine will be equipped with a particulate filter or a statement documenting why use of a particulate filter is not practical.	1. SCAQMD 2. SCAQMD 3. Prior to scheduled use in the field and quarterly thereafter
A-7/Retrofit cranes of 200 hp and greater with diesel particulate filters.	Chevron	Submit letter to SCAQMD verifying retrofitting has occurred including manufacturer information for particulate filters	1. SCAQMD 2. SCAQMD 3. Prior to scheduled use in the field
A-8/Suspend use of construction equipment during first stage smog alert or greater.	Chevron	Maintain records of date and time of each first stage smog alert or greater.	1. SCAQMD 2. SCAQMD 3. Per first stage smog alert or greater

Table 1 (concluded)
Mitigation, Monitoring and Reporting Plan for Chevron El Segundo Refinery

Mitigation Measure/Implementation Requirement	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
A-9/Develop a fugitive dust emission control plan	Chevron	Submit fugitive dust emission control plan prior to beginning construction activities.	1. SCAQMD 2. SCAQMD 3. Prior to start of construction and accordingly to Plan
GHG-1/Provide GHG emission offsets through SCAQMD projects	Chevron	Contribute by 12/31/2008 $1,500,000 to the SCAQMD for GHG emission reduction projects.	1. SCAQMD 2. SCAQMD 3. By 12/31/2008
GHG-1/Provide additional funding to the SCAQMD for GHG emission reduction projects, if necessary, as a result of SCAQMD evaluation in an amount not to exceed 20 percent of $1,500,000 ($300,000).	SCAQMD/Chevron	Evaluate GHG emission reduction projects and the credit market to determine if sufficient GHG emission reductions have been provided.	1. SCAQMD 2. SCAQMD 3. By June 30, 2010