CHAPTER 1
EXECUTIVE SUMMARY

INTRODUCTION

CHAPTER 1.0

INTRODUCTION AND EXECUTIVE SUMMARY

INTRODUCTION

The proposed project includes modifications to the Paramount Petroleum Corporation's Refinery (Refinery) in Paramount California that will allow it to produce cleaner-burning gasoline and ultra low sulfur diesel (ULSD) fuels for California markets in accordance with the requirements of United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). Cleaner-burning fuels reduce emissions of criteria and toxic air pollutants and, thereby, help to achieve and maintain federal and state ambient air quality standards in the Basin.

This document constitutes the Final Environmental Impact Report (EIR) for the Paramount Refinery's Clean Fuel Project. The Final EIR includes the Draft Environmental Impact Report (December, 2003), the Notice of Preparation (NOP) of a Draft EIR and Initial Study (IS) (March 12, 2003), and a Health Risk Assessment (Volume II) (December, 2003). All documents comprising the EIR for the proposed project were circulated for public review and are available at the South Coast Air Quality Management District (SCAQMD), 21865 Copley Drive, Diamond Bar, California, 91765. These documents can be obtained by contacting the SCAQMD's Public Information Center at (909) 396-2039, or by accessing http://www.aqmd.gov/ceqa/nonaqmd.html.

The NOP/IS of a Draft EIR for the Clean Fuel Project were released for public review on March 12, 2003. The NOP/IS contains a project description and the environmental checklist as required by the California Environmental Quality Act (CEQA) Guidelines. A copy of the NOP/IS is included in Appendix A of this EIR. The environmental disciplines that were determined to have potentially significant impacts and were analyzed in the EIR include air quality, hazards/hazardous material, and transportation/traffic.

The Draft EIR for the proposed Paramount Clean Fuel Project was released for a 45-day public review and comment period beginning on December 17, 2003. The public comment period was extended to about 70-days (to February 25, 2004) due to requests from the public and the applicant. One comment letter was received during the comment period for the Draft EIR. Responses to this comment letter were prepared and are included in Appendix E of this document. Minor changes were made to the text of the EIR where necessary due to public comments received on the Draft EIR or to finalize the EIR. Those changes are italicized for easier review. The environmental disciplines that were determined to have potentially significant impacts and were analyzed in the EIR include air quality, hazards, and transportation/traffic. The environmental resource where significant adverse environmental impacts would occur after implementation of mitigation measures was air quality. It should be noted that significant hazard impacts were identified for the proposed project. However, the alternative location identified in Alternative 3 (see Chapter 6) for the Naphtha Splitter is feasible. Therefore, the location of the Naphtha Splitter will be moved to the alternate site

eliminating the potentially significant hazard impacts. The Project Description in Chapter 2 has been revised to reflect this change. However, the environmental analysis in Chapter 4 has not been revised. The analysis of the hazard impacts for Alternative 3 (alternative location for the Naphtha Splitter) can be found in Chapter 6. Adverse impacts from the proposed project to transportation/traffic were determined not to be significant. A Statement of Findings and Overriding Considerations has been prepared for the potentially significant adverse air quality impacts and is included in Attachment 1 to the EIR.

PURPOSE/LEGAL REQUIREMENTS

In accordance with §15121(a) of the State CEQA Guidelines (California Administrative Code, Title 14, Division 6, Chapter 3), the purpose of an EIR is to serve as an informational document that: "will inform public agency decision-makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

The EIR is an informational document for use by decision-makers, public agencies and the general public. The proposed project requires discretionary approval from the SCAQMD and, therefore, it is subject to the requirements of CEQA (Public Resources Code, §21000 et seq.).

This Final EIR addresses both project-specific and cumulative impacts of the proposed project. The focus of this Final EIR is to address potentially significant environmental impacts identified in the NOP/IS (see Appendix A) and to recommend feasible mitigation measures, where possible, to reduce or eliminate significant adverse environmental impacts.

SCOPE AND CONTENT

The NOP/IS were circulated for a 30-day comment period beginning on March 12, 2003. The NOP/IS were circulated to neighboring jurisdictions, responsible agencies, other public agencies, and interested individuals in order to solicit input on the scope of the EIR. Comments received on the NOP/IS and responses are also included in Appendix A. The NOP/IS formed the basis for and focus of the technical analyses in this Final EIR. The following environmental issues were identified in the NOP/IS as potentially significant and are addressed in this document:

- Air Quality,
- Hazards,
- Transportation/Traffic.

The NOP/IS concluded that the proposed project would not create significant adverse environmental impacts to the following areas: aesthetics, agriculture resources, biological resources, cultural resources, energy, hydrology/water quality, land use/planning, mineral resources, population/housing, public services, geology/soils, noise, solid/hazardous waste, and recreation.

A discussion of potential cumulative impacts is also provided. The alternatives section of this Final EIR is prepared in accordance with §15126.6 of the CEQA Guidelines. This section describes a range of reasonable alternatives that could feasibly attain the basic objectives of the proposed project or are capable of eliminating or reducing some of the significant adverse environmental effects associated with the proposed project.

LEAD AGENCY

CEQA, Public Resources Code §21000 et seq., requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. To fulfill the purpose and intent of CEQA, the SCAQMD is the lead agency for this project and has prepared this Final EIR to address the potentially significant adverse environmental impacts associated with the Paramount Clean Fuels proposed project.

The lead agency is the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment (Public Resources Code §21067). It was determined that the SCAQMD has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency (CEQA Guidelines §15051(b)). The proposed project requires discretionary approval from the SCAQMD for modifications to existing stationary source equipment and installation of new stationary source equipment. The SCAQMD Permits to Construct and Permits to Operate are considered to be discretionary. Once the SCAQMD approves the project by certifying the EIR, permits can be issued.

RESPONSIBLE AGENCIES

State CEQA Guidelines §15381 defines a "responsible agency" as: "a public agency which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For purposes of CEQA, responsible agencies include all public agencies other than the lead agency that have discretionary approval authority over the project."

The City of Paramount has been identified as a Responsible Agency for the proposed project. The following agencies may have ministerial permitting authority for aspects of modifications at the Refinery operations, and have been given an opportunity to review and comment on the NOP and EIR; however, no new discretionary permits or permit modifications are expected to be required from these agencies for the proposed project.

- State Water Resources Control Board (SWRCB),
- Los Angeles Regional Water Quality Control Board (RWQCB),
- Los Angeles City Bureau of Sanitation (LACBS),
- Department of Toxic Substances Control (DTSC), and

For convenience, all the above agencies will be referred to generally as Responsible Agencies in this EIR.

INTENDED USES OF THE EIR

The EIR is intended to be a decision-making tool that provides full disclosure of the environmental consequences associated with the actions associated with implementing the proposed project. Additionally, CEQA Guidelines §15124(d)(1) requires a public agency to identify the following specific types of intended uses:

- A list of the agencies that are expected to use the EIR in their decision-making;
- A list of permits and other approvals required to implement the project; and
- A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

To the extent that local public agencies, such as cities, county planning commissions, etc., are responsible for making land use and planning decisions related to the proposed project, they could possibly rely on this EIR during their decision-making process. See the preceding section for a list of public agencies' whose approval may be required and who may also be expected to use this EIR in their decision-making process.

EXECUTIVE SUMMARY – CHAPTER 2: PROJECT DESCRIPTION

Project Applicant

Paramount Petroleum Corporation's Paramount, California, Refinery
14700 Downey Ave
Paramount
CA, 90723

The proposed project includes modifications to the Paramount Refinery which is located at 14700 Downey Avenue in the city of Paramount in the County of Los Angeles. The Refinery is bounded to the north by Contreras Boulevard, to the west by Downey Avenue, to the south by the Somerset Boulevard, and to the east by Lakewood Boulevard. Regional access to the Refinery is provided by Interstates 605 which is two and a quarter miles to the east, and Interstate 710 which is two and a quarter miles to the west. State Route (SR) 91 is two miles south and Interstate 105 is three quarters of a mile north of the Refinery.

The Refinery accounts for slightly more than half of the acreage within the Somerset Ranch Area of the 1990 Paramount General Plan. This area is designated as Mixed Use, it includes a mix of residential, commercial, industrial and public uses. Zoning for the Refinery is designated as M-2, Heavy Manufacturing.

Project Description

In order to make gasoline and diesel products that meet current and future CARB and U.S. EPA requirements, Paramount is proposing modifications to its existing Refinery. The objectives of the proposed project are to: (1) Produce cleaner-burning California gasoline blend stock for oxygenate blending (CARBOB) by removing benzene from naphtha streams; (2) produce finished reformulated gasoline (RFG) by blending ethanol and the CARBOB product; and (3) produce ULSD. At the Refinery, process unit modifications are required to the Light Naphtha Stabilizer, a hydrodesulfurization unit, the butane loading and unloading rack, and the gasoline blender. New equipment includes a Naphtha Splitter, a Benzene Saturation and Isomerization unit, a Light Naphtha rundown chiller, a Pressure Swing Adsorption Unit, and Ethanol Unloading and Blending facilities. The proposed project will not increase the crude throughput capacity of the Refinery.

As a result of reformulating all of California's gasoline through its Phase 3 requirements, CARB estimates that the Phase 3 requirements will reduce statewide mobile source hydrocarbon emissions by 0.5 ton per day, nitrogen oxides (NOx) emissions by 19 tons per day, and will eliminate MTBE in gasoline. Toxic emissions are expected to decrease by about seven percent. These emission reductions were based on comparing the properties of the 1998 average gasoline to the properties of a representative CARB reformulated gasoline. The CARB Reformulated Gasoline (RFG) Phase 3 requirements are expected to preserve and enhance the motor vehicle emission reduction benefits of the current program and will further aid in meeting the emission reductions required by the State Implementation Plan (CARB, 1999).

Recently, U.S. EPA adopted national diesel fuel standards that will lower sulfur to 15 ppm starting in 2006. This change enables tighter emission standards for new diesel engines and retrofits that require the use of NOx adsorbers and particulate filters. CARB has adopted the new sulfur limits into the California diesel fuel regulations. The new emission standards represent a 90 percent reduction of NOx emissions, 72 percent reduction of VOC emissions, and 90 percent reduction of PM emissions compared to the 2004 standards (CARB, 2003).

EXECUTIVE SUMMARY – CHAPTER 3: EXISTING ENVIRONMENTAL SETTING

Pursuant to CEQA Guidelines §15125, Chapter 3 – Existing Environmental Setting of the EIR, includes descriptions of existing environment only for those environmental areas that could be adversely affected by the proposed project. The following subsections briefly highlight the existing settings for the identified environmental areas that could potentially be adversely affected when implementing the proposed project, including Air Quality, Hazards and Hazardous Materials, and Transportation/Traffic.

Air Quality

Over the last decade and a half, there has been significant improvement in air quality in the SCAQMD's jurisdiction. Nevertheless, several air quality standards are still exceeded frequently and by a wide margin. Of the National Ambient Air Quality Standards (NAAQS) established for six criteria pollutants [ozone, lead, sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM10)], the area within the SCAQMD's jurisdiction is in attainment with the state and NAAQS for SO_2, NO_2, and lead. Chapter 3 provides a brief description of the existing air quality setting for each criteria pollutant as well as for toxic air contaminants.

Hazards and Hazardous Materials

The Refinery handles hazardous materials with the potential to cause harm to people, property, or the environment. Accidental release of hazardous materials at a facility can occur due to natural events, such as earthquake, and non-natural events, such as mechanical failure or human error. Potential hazards from the existing Refinery are those associated with accidental releases of toxic/flammable gas, toxic/flammable liquefied gas, and flammable liquids. Consequences associated with gas releases include toxic gas clouds, torch fires, and vapor cloud explosions. Consequences associated with potential releases of toxic/flammable liquefied gases include toxic clouds, torch fires, flash fires, and vapor cloud explosions. Releases of flammable liquids may result in pool fires, flash fires, or vapor cloud explosions.

The Paramount Refinery currently uses a number of hazardous materials at the site to manufacture petroleum products. A more detailed discussion of the hazards associated with the existing Refinery is available in the Paramount Petroleum Risk Management Plan required under the federal Risk Management Program (RMP) and California Accidental Release Program (CalARP) regulations. Shipping, handling, storing, and disposing of hazardous materials inherently poses a certain risk of a release to the environment. The toxic substances handled by the refinery include hydrogen sulfide and ammonia, and regulated flammable substances

including propane, butane, and other petroleum products including gasoline, fuel oils, diesel and other products, which pose the potential of a fire or explosion.

State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.

Transportation/Traffic

The transportation network in the Paramount area includes roads, highways, freeways, railroads, airports and seaports. Traffic counts including turn counts were taken in 2003 to determine the existing traffic in the area. The traffic analysis indicates typical urban traffic conditions in the area surrounding the Refinery, with most intersections operating at Level of Services (LOS) A to C.

EXECUTIVE SUMMARY – CHAPTER 4: SUMMARY OF IMPACTS AND MITIGATION MEASURES

This section summarizes the environmental impacts, mitigation measures, and residual impacts associated with the proposed project. Impacts are divided into four classifications: Unavoidable Adverse Impacts, Potentially Significant but Mitigable Impacts, Less Than Significant Impacts, and Beneficial Impacts. Unavoidable adverse impacts are significant impacts that require a Statement of Findings pursuant to CEQA Guidelines §15091 and a Statement of Overriding Considerations to be issued per CEQA Guidelines §15093 if the project is approved. Potentially Significant but Mitigable Impacts are adverse impacts that can be feasibly mitigated to less than significant levels. The SCAQMD interprets §15091 to require findings only if impacts are not significant. If an impact is mitigated to insignificance, findings are not required. Less than significant impacts may be adverse but do not exceed any significance threshold levels and do not require mitigation measures. Beneficial impacts reduce existing environmental problems or hazards.

Unavoidable Adverse Impacts

Air Quality:	Emissions of VOCs during project operation are expected to be significant.
Hazards:	The proposed modifications to the Naphtha Splitter will result in an increase in the potential public exposure under "worst-case" consequence analysis conditions. As a result, the potential consequences of a release of hazardous materials associated with these modifications are significant.

Less Than Significant Impacts

Air Quality:	Construction emissions of CO, VOC, NOx, SOx and PM10 are expected to be less than significant.

	Emissions associated with CO, NOx, SOx and PM10 are less than significant during project operation. Ambient concentrations of criteria pollutants, CO hot spots, and odors are expected to be less than significant during the operational phase of the project. Emissions of toxic air contaminants are expected to be reduced due to the proposed project modifications since benzene in the various product streams will be reduced. The project toxic air contaminant impacts at the maximum exposed resident and the maximum exposed worker are less than significant for cancer risk. The acute and chronic hazard indices associated with the proposed project are less than significant.
Hazards:	Modifications associated with the Benzene Saturation and Isomerization Unit, Light Naphtha Stabilizer, HDS Stripper Reflux Accumulator, Pentane Loading, Ethanol Unloading and Blending Facilities, Pentane and Butane Blending, and the Pressure Swing Adsorption Unit are not expected to result in significant hazard impacts. Transportation hazards are expected to be less than significant during project operation. The proposed project is expected to comply with applicable design codes and regulations, with National Fire Protection Association Standards, and with generally accepted industry practices.
Transportation/ Traffic:	Traffic impacts during the project construction and operation are expected to be less than significant.

EXECUTIVE SUMMARY – CHAPTER 5: SUMMARY OF CUMULATIVE IMPACTS

A number of projects with the potential to have cumulative impacts with the proposed project were identified, including local projects and other refinery reformulated fuel projects. These projects and associated cumulative impacts relative to the proposed project are discussed in Chapter 5.

Unavoidable Significant Adverse Cumulative Impacts

Air Quality:	Cumulative emissions of VOCs from construction equipment will exceed mass daily emissions significance thresholds during project construction. Cumulative emissions of CO, VOCs, NOx, SOx, and PM10 will exceed mass daily emission significance thresholds during project operation.

Less Than Significant Impacts Cumulative Impacts

Air Quality:	During the construction phase of the project, the cumulative CO, NOx, SOx and PM10 emissions are less than significant. The proposed project is expected to reduce the emissions of toxic air contaminants from the overall operation of the Refinery. The cumulative impacts associated with the post-project scenario would be below the significance criteria for cancer risk at the MEIR, MEIW and for the chronic and acute hazard index.
Hazards/Hazardous Materials:	The Naphtha Splitter will result in an increase in the potential public exposure under "worst-case" consequence analysis conditions. The potential for cumulative consequences from Refinery hazards are expected to be less than significant because sufficient distance exists between Paramount and other projects with releases that could generate hazards to avoid cumulative impacts.
Transportation/ Traffic:	Cumulative traffic impacts during the construction and operational phases are expected to be less than significant.

EXECUTIVE SUMMARY – CHAPTER 6: SUMMARY OF ALTERNATIVES

This EIR identifies and compares the relative merits of a range of reasonable alternatives to the proposed project as required by the CEQA guidelines. According to the guidelines, alternatives should include realistic measures to attain the basic objectives of the proposed project and provide means for evaluating the comparative merits of each alternative. In addition, though the range of alternatives must be sufficient to permit a reasoned choice, they need not include every conceivable project alternative (CEQA Guidelines, §15126.6(a)). The key issue is whether the selection and discussion of alternatives fosters informed decision making and public participation.

Alternatives evaluated include the No-Project Alternative, Hydrogen Delivery via Pipeline, and Alternate Location for the Naphtha Splitter. The Alternative Location for the Naphtha Splitter could potentially reduce the project hazard impacts to less than significant while achieving all of the proposed project objectives. As a result, Paramount is actively pursuing this alternative. The final decision as to the location of the Naphtha Splitter cannot be made until further engineering is completed. Consequently, the proposed project is considered the preferred alternative to ensure that Paramount will be able to achieve all the objectives of the proposed project, which is to produce clean fuels as specified by state and federal regulations, and minimize environmental impacts.

CHAPTERS 7 AND 8 SUMMARY – REFERENCES AND ACRONYMS AND GLOSSARY

Information on References cited (including organizations and persons consulted) and the acronyms and glossary are presented in Chapters 7 and 8, respectively.

TABLE 1-1

SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND RESIDUAL IMPACTS

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY		
The construction emissions of CO, VOC, NOx, SOx and PM10 and are less than significant.	None required.	Construction emissions are expected to be less than significant for CO, VOC, NOx, SOx and PM10.
Operational emissions of criteria pollutants are less than significant for CO, NOx, SOx, and PM10.	None required. Project emissions are controlled through the use of BACT.	Mass daily emissions of CO, NOx, SOx, and PM10 from stationary sources are expected to be less than significant.
Operational emissions of criteria pollutants are significant for VOCs.	Project emissions are controlled through the use of BACT. No additional feasible mitigation measures were identified.	Mass daily emissions of VOC are expected to remain significant.
The ambient air concentrations of NOx, PM10, and CO are below SCAQMD significance threshold levels and are less than significant since no new combustion sources and no increase in combustion emissions are expected.	None required.	Concentrations of NOx, PM10, and CO are less than significant.
No significant traffic impacts were identified at local intersections so no significant increase in CO hot spots are expected.	None required.	CO hot spots are less than significant.
The project is consistent with the General Plan and is consistent with the Air Quality Management Plan so no significant impacts are expected.	None required.	Impacts on the AQMP are less than significant.
The estimated cancer risk due to the operation of the proposed project is expected to be less than the significance criterion of 10 per million so that the project impacts are less than significant. The project is expected to reduce overall emissions of benzene from the Refinery and decrease the cancer risk associated with the baseline Refinery operations.	None required.	Cancer risk impacts are less than significant.

TABLE 1-1 (Cont.)

SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND RESIDUAL IMPACTS

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
The proposed project's impacts associated with exposure to non-carcinogenic compounds are expected to be less than significant. The chronic hazard index and the acute hazard index are both below 1.0.	None required.	No significant non-carcinogenic health impacts are expected.
Potential odor impacts from the proposed project are not expected to be significant.	None required.	Project impacts on odors are less than significant.
HAZARDS		
Impacts associated with modifications to the Naphtha Splitter could result in off-site exposure to hydrogen sulfide at levels that could cause injury. Hazard impacts are considered significant for the Naphtha Splitter.	Paramount will be required to update its Process Safety Management Program and Risk Management Program. No additional feasible mitigation measures were identified, over and beyond the extensive safety regulations that apply.	Hazard impacts for the modification to the Naphtha Splitter remain significant.
Hazard impacts associated with modifications to the Benzene Saturation and Isomerization Unit, Light Naphtha Stabilizer, HDS Stripper Reflux Accumulator, Pentane Loading, Ethanol Loading, Pentane and Butane Blending, and the Pressure Swing Adsorption Unit are expected to be less than significant.	None required. However, Paramount will be required to update its Process Safety Management Program and Risk Management Program.	Hazard impacts associated with other Refinery modifications (other than the Naphtha Splitter) are expected to be less than significant.
The proposed project impacts on water quality due to an accidental release are expected to be less than significant.	None required.	Hazard impacts on water quality are expected to be less than significant.
The project is expected to increase the transport of hazardous materials and petroleum products. The hazard impact associated with the transport of these materials is expected to be less than significant.	None required.	Hazard impacts due to transportation are less than significant.

TABLE 1-1 (Cont.)

SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES AND RESIDUAL IMPACTS

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
The project is expected to comply with all applicable design codes and regulations.	None required.	Hazard impacts are less than significant.
TRANSPORTATION/TRAFFIC		
No significant change in the level of service (LOS) rating at any intersection during construction is expected, so no significant traffic impacts are expected due to construction of the proposed project.	None required.	Traffic impacts during the construction phase are less than significant.
During operations, the LOS at the Lakewood Boulevard/Sommerset Boulevard intersection is expected to change from A to B during the a.m. peak hour, which is not considered to be a significant adverse impact. No change in the LOS is expected at any other intersection. Therefore, the proposed project is not expected to result in significant traffic impacts.	None required.	Traffic impacts due to operation of the proposed are not considered to be significant.

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