SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Addendum to the Final Environmental Impact Report for the

Paramount Refinery
Clean Fuels Project

SCH. No. 2003031044

[Final EIR Certified April 2004]

September 2007

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1.0 INTRODUCTION

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. The Paramount Petroleum Corporation's Clean Fuels Project includes producing 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).

As lead agency, the South Coast Air Quality Management District (SCAQMD), prepared the April 2004 Final Environmental Impact Report for the Paramount Clean Fuels Project [SCAQMD, SCH No. 2003031044] (April 2004 Final EIR), which was certified in April 2004, to evaluate the potential environmental impacts associated with the proposed modifications to the Paramount Refinery Clean Fuels Project.

Modifications to the Paramount Refinery as part of the Clean Fuels Project included: (1) removing benzene from naphtha streams in order to produce cleaner-burning California gasoline blend stock for oxygenate blending (CARBOB); (2) blending ethanol and the CARBOB product to produce finished reformulated gasoline (RFG); and (3) refinery modifications to produce ULSD. At the Refinery, process unit modifications were required to the Light Naphtha Stabilizer, a hydrodesulfurization unit, the butane loading and unloading rack, and the gasoline blender. New equipment included 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 Paramount Refinery has commenced the construction of the Clean Fuels Project, as described in the certified April 2004 Final EIR, and most portions of the project have been completed. Paramount had proposed the modification of a single storage tank in the April 2004 Final EIR. After further evaluation, Paramount determined that a second modified tank and a gasoline filter system were required to accommodate additional gasoline blendstocks needed to produce reformulated gasoline. Paramount is now proposing to change an existing fixed roof storage tank (T-5006) to a fixed roof tank with an internal floating roof and to install a filter system to operate with the tank. In addition, Paramount is proposing to change the service of T-5006 from asphalt to ethanol. Additionally, a gasoline filter system will be installed as part of the gasoline blender. The details of the proposed changes are explained in Section 5.2 of this Addendum.

The SCAQMD has evaluated the proposed changes to the fixed roof tank (as detailed in Section 5.2 of this Addendum) and determined that the proposed modification to the tank does not create any new significant adverse impacts or make substantially worse any existing significant adverse impacts identified in the April 2004 Final EIR. Only minor additions or changes are necessary to make the previous EIR adequate for the revised project. Therefore, when considering the effects of the current proposed project modification, the SCAQMD has concluded that an Addendum is the appropriate document to be prepared in accordance with the California Environmental Quality Act (CEQA) in order to evaluate potential environmental impacts associated with the current proposed project modification.

2.0 BASIS FOR DECISION TO PREPARE AN ADDENDUM

The SCAQMD was the lead agency responsible for preparing the April 2004 Final EIR and is the public agency that has the primary responsibility for approving the current proposed project modification. Therefore, the SCAQMD is the appropriate lead agency to evaluate the potential environmental effects of the current proposed project modification that is the subject of this Addendum.

Based on the analysis of the current proposed project modification that follows in Sections 6.0 and 7.0, the SCAQMD has concluded that the only environmental area affected by the current proposed project modification is air quality. The April 2004 Final EIR concluded that no significant adverse project air quality impacts were expected during construction; however, operational emissions were expected to exceed the SCAQMD significance threshold for VOCs during operation, so operational emissions were considered significant. The current proposed project modification does not change these conclusions. During the construction phase air quality impacts remain less than significant and during operation significant adverse air quality impacts are not made substantially worse, as shown in Subsection 6.2.1 of this Addendum.

The construction impacts were analyzed for each month during the construction period because construction activities and the resulting emissions vary from one month to another. The months with the peak emissions were included in the April 2004 Final EIR. The analysis in the April 2004 Final EIR indicated that unmitigated peak daily emissions of carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NOx), sulfur oxides (SOx), and particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM10) were expected to be below the construction significance threholds and, therefore, less than significant.

The construction air quality impacts analysis for the current proposed modification includes additional emissions associated with converting T-5006 from a fixed roof tank to an internal floating roof tank, and adding a gasoline filter system and an ethanol filter system. The construction emissions associated with the tank conversion have been estimated and the results indicate that peak daily CO, VOC, NOx, SOx, and PM10 construction emissions associated with the current proposed revisions are less than the peak daily construction emissions for the project evaluated in the April 2004 Final EIR (see Section 6.0, Table 3). It should be noted that no other construction activities at the Paramount Refinery are expected to occur during the same time as the construction activities associated with T-5006. Thus, no new significant adverse impacts from construction activities are expected from the current proposed project modification.

Operational emissions are expected to be essentially the same as those in the April 2004 Final EIR. The change in the existing fixed roof tank that stores asphalt to an internal floating roof tank that stores ethanol and the installation of new gasoline and ethanol filter systems will generate an estimated 0.10 pound per day of additional VOC emissions. Therefore, it can be concluded that the current proposed project modification does not create new significant adverse impacts or substantially increase the severity of significant impacts previously identified in the April 2004 Final EIR. As a result, pursuant to CEQA Guidelines §15164(a), this document constitutes an

Addendum to the April 2004 Final EIR for the Paramount Clean Fuels Project. Section 6.0 of this Addendum further explains the basis for the determination to prepare an Addendum.

CEQA Guidelines §15164(a) allows a lead agency to prepare an Addendum to a Final EIR if all of the following conditions are met.

- Substantial changes with respect to the circumstances under which the project is undertaken do not require major revisions to the previous Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

- No new information becomes available which shows new significant effects or significant effects substantially more severe than previously discussed.

- The project proponent agrees to adopt mitigation measures which are different from those analyzed in the previous EIR that would substantially reduce one or more significant effects on the environment.

- Only minor technical changes or additions are necessary to make the Final EIR under consideration adequate under CEQA.

- The changes to the Final EIR made by the Addendum do not raise important new issues about the significant effects on the environment.

The current proposed project modifications will result in no new significant adverse effects or substantially increase the severity of significant effects previously identified. Further, the current proposed project modifications consist of only minor changes to the April 2004 Final EIR that do not raise important new issues about the previously analyzed significant environmental effects. Thus, the current proposed project modifications meet all of the conditions in the CEQA Guidelines for the preparation of an Addendum.

3.0 BACKGROUND CEQA DOCUMENTS

The activities associated with the Paramount Clean Fuels Project were evaluated sequentially in the following CEQA documents. Summaries of each of these CEQA documents are provided below. The April 2004 Final EIR can be obtained by contacting the SCAQMD's Public Information Center at (909) 396-2039 or it can be downloaded from the SCAQMD's CEQA Webpages at the following Internet address:

http://www.aqmd.gov/ceqa/documents/2004/nonaqmd/paramount/final/para_FEIR.html

Notice of Preparation and Initial Study for the Draft Environmental Impact Report For the Paramount Petroleum Refinery – Reformulated Fuels Project (SCAQMD, March 2003): A Notice of Preparation (NOP) and Initial Study for the Paramount Petroleum Refinery – Reformulated Fuels Project were released for a 30-day public review and comment period on March 12, 2003. The Initial Study (IS) included a project description, project location, an environmental checklist,

and a discussion of potential adverse environmental impacts. The NOP solicited input from public agencies and other interested parties on the scope and content of the environmental information to be evaluated in the Draft EIR. The NOP/IS is incorporated into the April 2004 Final EIR as Appendix A.

Draft Environmental Impact Report for Paramount Refinery Clean Fuels Project (SCAQMD, December 2003): The Draft EIR was released for a 45-day public review and comment period on December 17, 2003. The Draft EIR included a comprehensive project description, a description of the existing environmental setting that could be adversely affected by the proposed project, analysis of potential adverse environmental impacts (including cumulative impacts), mitigation measures, project alternatives, and all other topics required by CEQA. The Draft EIR also included a copy of the NOP and Initial Study, copies of comment letters received on the NOP and Initial Study, and responses to all comment letters received on the NOP and Initial Study. The Draft EIR concluded that the Paramount Clean Fuels Project may generate significant adverse impacts, following mitigation, in two environmental areas: VOC emissions and hazards during project operation.

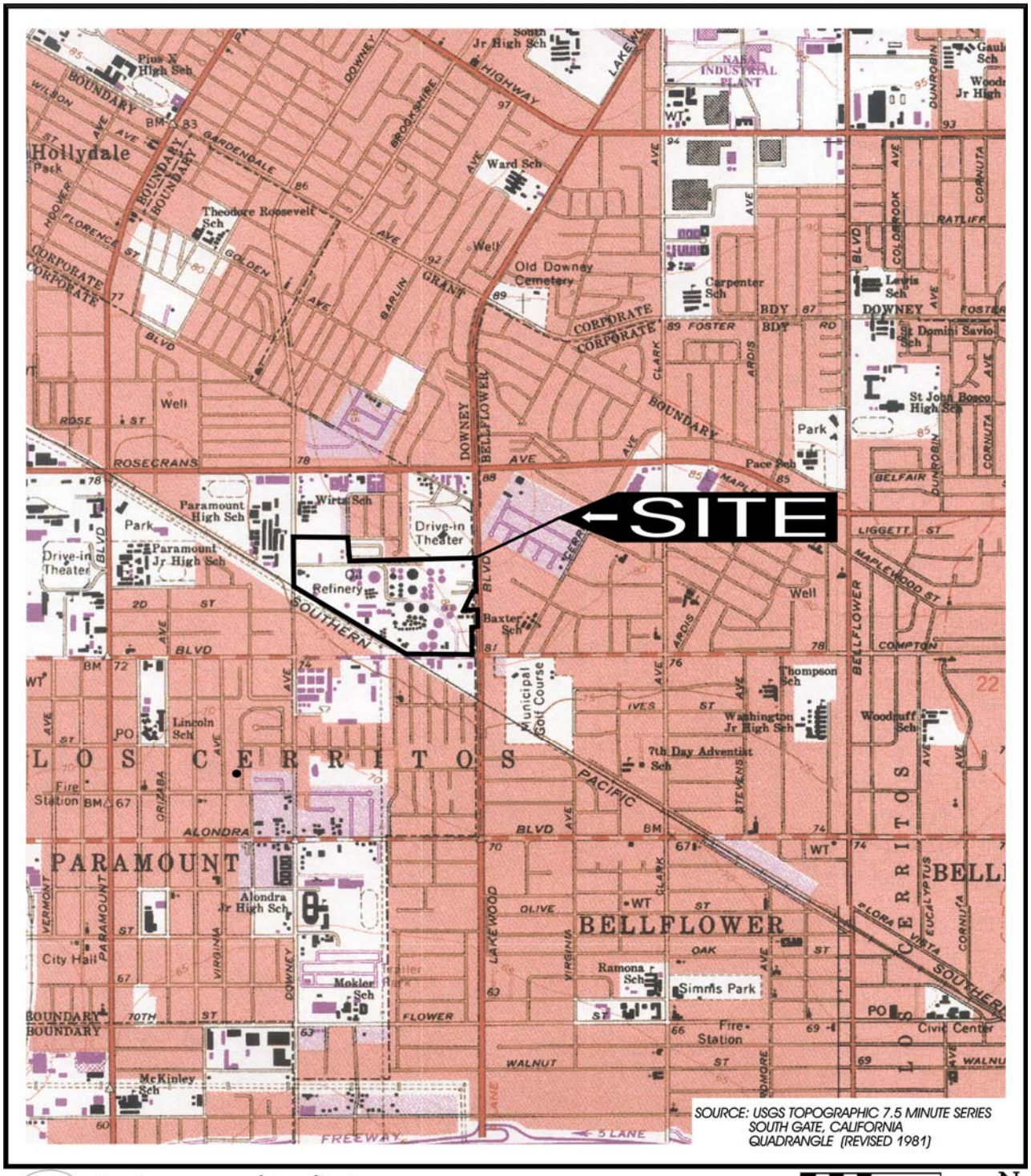
Final Environmental Impact Report for Paramount Refinery Clean Fuels Project (SCAQMD, April 2004): The Final EIR was prepared by revising the Draft EIR to incorporate applicable updated information and changes in response to comments received on the Draft EIR. The Final EIR contained comment letters and responses to comments received on the Draft EIR. The changes included in the Final EIR did not constitute significant new information relating to the environmental analysis or mitigation measures. The Final EIR was certified on April 9, 2006.

4.0 PROJECT LOCATION

The Refinery is located in the City of Paramount. The City is located east of the Los Angeles River and is approximately 16.5 miles southeast of downtown Los Angeles (see Figure 1). The City of Paramount is bounded by the cities of South Gate, Downey, Bellflower, Long Beach, Compton, and Lynwood. The Refinery is bounded by Lakewood Boulevard, Somerset Boulevard, Downey Avenue, and Contreras Street. The Refinery is located immediately west of the City of Bellflower municipal boundary lines, and approximately one-quarter mile south of the City of Downey boundary line.

Regional access to the Refinery is provided by Interstates 605 and 710, which run north-south approximately two and a quarter miles east and west of the Refinery, respectively. State Route 91 runs east-west and is located approximately two miles south of the Refinery. Interstate 105 is located about three-quarters of a mile north of the Refinery.

Primary truck access to the Refinery is provided by Andry Drive, which is accessible from Somerset and Lakewood Boulevards. The main entrance to the administrative offices at the Refinery is at Downey Avenue. Lakewood Boulevard serves as the City's eastern boundary for both the City and project site. Somerset Boulevard and Downey Avenue, two of the City's major thoroughfares, define the southern and western edges of the project site. The Los Angeles Department of Water and Power (DWP) easement and the Union Pacific railroad (UPRR) separate the project site from multiple-family residential uses to the southwest.



Environmental Audit, Inc.®

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SITE LOCATION MAP
14700 Downey Avenue
Paramount, California

Project No. 2150

Figure 1

N:/2150/Site Map (figure.1).cdr

5.0 PROJECT DESCRIPTION

The description of the Clean Fuels Project, as well as a description of the proposed project modifications are presented in the section below. Although the current project modifications only affects air quality, a description of the entire project is provided to compare the proposed project with the current proposed modifications.

5.1 Project as Analyzed in April 2004 Final EIR

The Clean Fuels project will allow Paramount to produce gasoline and diesel fuels for California markets. After completion of the project, the Refinery will be able to produce about 7,500 barrels per day (315,000 gallons per day) of reformulated gasoline and 8,500 barrels per day (357,000 gallons per day) of ULSD. The project will not increase the crude throughput capacity of the Refinery.

Reformulated Gasoline Production

As indicated in the April 2004 Final EIR, producing RFG will require the Refinery to:

- Reduce the benzene content of its manufactured gasoline components;
- Increase the octane rating of light gasoline components;
- Remove and sell certain light components of gasoline in order to reduce the vapor pressure of finished gasoline; and,
- Purchase and import gasoline components for blending into the finished gasoline product.

To achieve these results, the Refinery proposes to install the following new equipment:

- Naphtha Splitter,
- Benzene Saturation and Isomerization Unit,
- Light Naphtha rundown chiller, and
- Ethanol Storage and Blending facilities.

Additionally, the Refinery operators propose to: convert its existing Light Naphtha Stabilizer from a fired reboiler to a steam reboiler; modify an HDS unit to improve the quality of Reformer feed; modify its existing butane loading and unloading rack to accommodate pentane loading; change the service of two existing internal floating roof storage tanks; and, modify its existing gasoline blender to handle the additional blendstocks needed to produce RFG.

Naphtha Splitter and Benzene Saturation Unit

Benzene is a naturally occurring component of crude oil and is manufactured in the gasoline reforming process. Because of its designation as a carcinogen, regulators require, and this project will result in, reduced levels of benzene in reformulated gasoline.

To reduce benzene in gasoline to regulated levels, the Refinery operators are proposing to install a new Naphtha Splitter and a new Benzene Saturation Unit.

The Naphtha Splitter will concentrate naturally occurring benzene into the heavy naphtha feed to the Reformer. The Benzene Saturation Unit will then process the high-octane product from the Reformer (reformate) to convert all of the manufactured benzene and most of the naturally occurring benzene into cyclohexane. Since the release of the Draft EIR, the location of the Naphtha Splitter has been changed (per Alternative 3, evaluated in Chapter 6) to reduce the potentially significant hazard impacts associated with this unit to less than significant.

Isomerization is a process that increases the octane rating of light gasoline components without increasing the aromatic content of the fuel. Through the use of Isomerization, the Paramount Refinery will be able to meet RFG octane rating requirements while converting less of the heavy gasoline components into aromatics. This will allow the Refinery to produce gasoline fuels that simultaneously meet the minimum octane rating and maximum aromatic specifications.

Vapor Pressure Reduction

In order to produce reformulated gasoline blendstock that can be mixed with ethanol to produce finished gasoline, the Refinery operators must remove some of the pentane from its gasoline pool. The pentane will be removed at a distillation column that is part of the new Benzene Saturation Unit. The material will be stored in an existing pressurized storage vessel. A portion of this pentane product will be blended into the finished gasoline. Excess pentane that cannot be blended into gasoline will be shipped out of the Refinery using pressurized truck transport.

Reformer Feed Quality Control

To consistently reduce contaminants to the desired levels, the Refinery operators are proposing modifications that will convert the Hot Hydrogen Stripper to a reboiled stripper. This conversion will require a new pressurized vessel, several heat exchangers, some pumps, and use of an existing process heater (H-860), which will be moved from another existing unit in the Refinery.

Light Naphtha Stabilization

In order to produce reformulated gasoline, the Refinery operators will need to reduce the average boiling point of the stabilized light naphtha by allowing some of the heavier hydrocarbon molecules to enter the heavy naphtha stream. This will produce light naphtha that boils over a narrower range than the Refinery's current light naphtha product.

To ensure consistent quality of this product, the Refinery operators are proposing to install a steam reboiler. Heat input is more easily controlled using a steam reboiler than with a fired heater, especially when distilling narrow-boiling fractions. Converting the Light Naphtha Stabilizer to a steam reboiler will also free up the H-860 heater for use at the modified No. 1 HDS Stripper, described earlier.

Logistics

Producing reformulated gasoline will require some new or modified equipment within the Refinery's product storage and handling facilities. The benzene control scheme that the Refinery is proposing will result in production of a light naphtha stream with a relatively high vapor pressure. The Refinery will install a chiller unit to reduce the light naphtha rundown temperature and vapor pressure. The chiller is a self-contained refrigeration unit that will cool the light naphtha to a storage temperature of about 75 ^{o}F.

The production of excess pentane will be a small volume and will be shipped out of the Refinery. This will require use of an existing butane loading rack in pentane service. On average, the Refinery expects to ship about 200 barrels per day of pentane – about one truckload per day.

To accommodate additional gasoline blendstocks needed to produce CARBOB and RFG, the Refinery operators will change the service of one existing fixed roof storage tank (Tank 10005) from its current jet fuel service to naphtha service and convert it to a fixed roof tank with an internal floating roof. Producing reformulated gasoline will require that the Refinery modify its existing gasoline blender to handle additional blendstocks. This requires the addition of pumps, piping, control systems, and in-line analyzers.

Finally, to produce finished RFG, the Refinery operators will install ethanol-blending facilities at an existing truck loading rack. Ethanol will be delivered to the Refinery via truck transport and stored in an existing storage tank. Receiving the ethanol will require a new unloading rack. The ethanol will be truck-blended with CARBOB at the existing truck loading rack using a new loading pump and transfer piping.

Ultra Low Sulfur Diesel Production

The physical modifications to the Refinery are necessary to manufacture reformulated gasoline and ULSD, by allowing full use of the Refinery's HDS units. In order to produce ULSD to meet state and federal specifications, the Refinery operators propose to install a new Pressure Swing Adsorption (PSA) unit to convert the Reformer hydrogen to a higher purity hydrogen stream. This high purity hydrogen will increase the desulfurization capabilities of the existing HDS units such that the Refinery can produce diesel that will meet the 15 ppm sulfur specification.

Pressure Swing Adsorption (PSA)

The hydrogen produced at the Refinery's Reformer contains 75-85 mole percent hydrogen. The purity of this stream is sufficient to process the Refinery's existing diesel streams to the 500 ppm by weight sulfur level required for CARB Diesel production. However, in order to produce ULSD

in the Refinery's existing HDS units, a hydrogen stream with a purity of at least 98 mole percent hydrogen is needed.

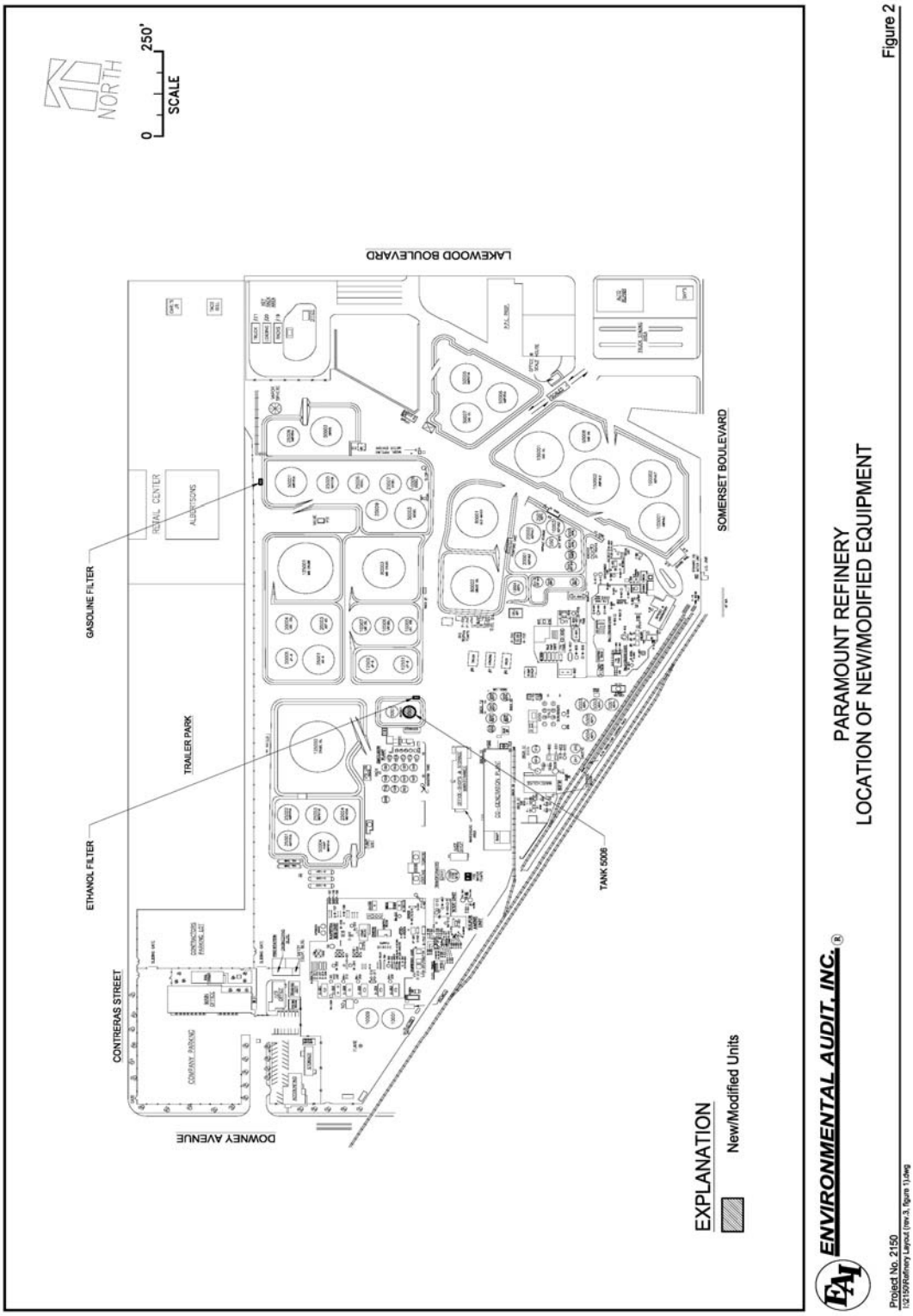
Hydrogen purification can be accomplished by means of PSA. This technology uses a solid adsorbent to trap the impurities contained in the low purity hydrogen stream. The resulting high-purity stream contains more than 99 mole percent hydrogen. The removed impurities, primarily light hydrocarbon gases, are burned as refinery fuel gas.

5.2 Current Proposed Project Modification

The current proposed modification involves changes to construction and operation emissions of the proposed project as analyzed in the April 2004 Final EIR. The Refinery will change the service of one existing fixed roof storage tank (T-5006) from its current asphalt service to ethanol service and convert it to a fixed roof tank with an internal floating roof. An ethanol filter system will be installed in the tank piping, which will be used for filtration of ethanol for impurities prior to blending into the product. The ethanol filter system will include four filtering elements, each a maximum of about six inches in diameter and about 29 inches in length. A gasoline filter system also will be added to the gasoline blender to filter out impurities of CARBOB withdrawn from storage tanks before it is inline blended with ethanol. The gasoline filter system will include numerous filter elements, each a maximum of about six inches in diameter and about 56 inches in length. Paramount estimates that it will need to replace all the filter elements about once per quarter. The proposed modifications will result in additional construction activities to construct the internal floating roof tank and revised emissions associated with project construction. The location of the proposed project modifications are shown in Figure 2.

6.0 IMPACT ANALYSIS

This section presents a summary of the impact analysis contained in the April 2004 Final EIR, as well as the analysis of the impacts of the current proposed project modification. Impacts are divided into four classifications: Unavoidable Adverse Impacts, Potentially Significant but Mitigable Impacts, Less Than Significant Impacts, and Beneficial Impacts. Significant 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. Pursuant to CEQA guidelines §15091, findings are required only if impacts are 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.


NORTH
0
250'
SCALE
LAKEWOOD BOULEVARD
SOMERSET BOULEVARD
DOWNEY AVENUE
CONTRERAS STREET
GASOLINE FILTER
ETHANOL FILTER
TRAILER PARK
TANK 5008
RETAIL CENTER
ALBERTSONS
EXPLANATION
New/Modified Units
PARAMOUNT REFINERY
LOCATION OF NEW/MODIFIED EQUIPMENT
ENVIRONMENTAL AUDIT, INC.
Figure 2
Project No. 2150
I:\2150\Refinery Layout (rev.3, figure 1).dwg

6.1 Summary of Impacts in the April 2004 Final EIR

6.1.1 Air Quality

Construction Impacts

Daily construction emissions were calculated for the peak construction day activities based on activities at the Refinery. Peak day emissions are the sum of the highest daily emissions from employee vehicles, fugitive dust sources, construction equipment, and transport activities during the construction period. The peak construction emissions were calculated by peak day in each of the several phases of project construction. The peak day is based on the day in which the highest emissions occur for each pollutant. The peak day varies by pollutant, although the peak day for most pollutants (CO, VOC, NOx and PM10 emissions) is expected to occur during month six of the construction period (piping installation within the modified units). The peak day was picked for each pollutant. The criteria pollutant emissions for that peak day were then compared to their respective significance thresholds. Overall construction emissions from the April 2004 Final EIR are summarized in Table 1. The construction emissions for the Paramount Clean Fuels Project are expected to be less than the SCAQMD CEQA significance thresholds for all pollutants and no significant air quality impacts associated with construction activities are expected.

TABLE 1

**SUMMARY OF PEAK CONSTRUCTION ACTIVITIES
EVALUATED IN THE APRIL 2004 FINAL EIR
(pounds per day)**

Construction Activities	CO	VOC	NOx	SOx	PM10
Construction Equipment	263.8	15.5	60.1	6.0	3.9
Construction Vehicles Emissions	43.9	16.8	15.7	<0.1	0.2
Fugitive Dust from Roadways	0	0	0	0	11.8
Fugitive Construction Emissions	0	0	0	0	102.3
Total Construction Emissions	**307.7**	**32.3**	**75.8**	**6.0**	**118.2**
SCAQMD Thresholds	**550**	**75**	**100**	**150**	**150**
Significant	**NO**	**NO**	**NO**	**NO**	**NO**

Operational Impacts

Operation emissions from the April 2004 Final EIR are summarized in Table 2, together with the SCAQMD's daily operational threshold levels. The operation of the proposed project will not exceed the significance thresholds for CO, NOx, SOx and PM10. Therefore, the air quality impacts associated with operation emissions of CO, NOx, SOx and PM10 from the proposed project are less than significant for these criteria pollutants. The operation of the proposed project will exceed the significance threshold for VOC emissions; therefore, air quality impacts associated with VOC emissions are significant.

TABLE 2

**PARAMOUNT CLEAN FUELS PROPOSED PROJECT
PEAK OPERATIONAL EMISSIONS EVALUATED IN THE APRIL 2004 FINAL EIR
(pound per day)**

SOURCE	CO	VOC	NOx	SOx	PM10
Fugitive Emissions (e.g., pumps)	0.0	44.8	0.0	0.0	0.0
Truck Loading Emissions	0.0	15.8	0.0	0.0	0.0
Truck/Vehicle Emissions	103.4	5.6	47.2	0.4	0.9
Fugitive Dust from Trucks/Vehicles	0.0	0.0	0.0	0.0	68.4
Railcar Emissions	0.5	0.2	4.7	0.3	0.1
Project Emission Summary	**103.9**	**66.4**	**51.9**	**0.7**	**69.4**
CEQA Thresholds	**550**	**55**	**55**	**150**	**150**
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**

Toxic Air Contaminants (TAC)

A health risk assessment (HRA) was performed to determine if emissions of toxic air contaminants generated by the proposed project would exceed the SCAQMD thresholds of significance for cancer risk. The project was estimated to reduce carcinogenic risk to the maximum exposed resident and maximum exposed worker.

The acute and chronic hazard health impacts were also evaluated for the proposed project. The acute hazard index for the proposed project is estimated to be 0.017, which is below the significance criteria of 1.0. The acute health effects are based on maximum hourly emissions of toxic air contaminants that have acute target endpoints.

The highest chronic hazard index for the proposed project is estimated to be 0.0010, which is below the significance criteria of 1.0. The chronic hazard index was determined by comparing the baseline and post project chronic hazard indices. The proposed project increases the chronic hazard index due to increases in TAC emissions associated with chronic health effects.

6.1.2 Hazards and Hazardous Materials

Only one of the releases from the new system produces hazard zones that extend past the hazard zones for the current system that it is compared to, which is a rupture in the Naphtha Splitter Overhead Accumulator. Therefore, the modifications to the Naphtha Splitter will result in an increase in the potential public exposure under "worst-case" consequence analysis conditions. A release of hydrogen sulfide could allow the 30 ppm concentration level to extend an additional 120 feet south of the Refinery, under a "worst-case" release scenario. Likewise, the distance to the LFL assuming a "worst-case" release of flammable materials could extend an additional 110 feet, under "worst-case" conditions. The location of the Naphtha Splitter was moved, as described in Alternative 3 of the April 2004 Final EIR. Therefore, the potential for off-site hazard impacts associated with the Naphtha Splitter were mitigated to less than significant. Therefore, the

proposed project impacts on hazards and hazardous materials were concluded to be less than significant.

6.1.3 Transportation and Traffic Impacts

The traffic analysis conducted for the construction phase indicates that there is no change in the LOS rating at any of the intersections due to the construction phase of the proposed project. Therefore, the proposed project will have no significant adverse impacts on traffic during the a.m. or p.m. construction phase at the Refinery.

The proposed project is expected to increase the permanent number of workers at the Refinery by 14. The increase in the number of trucks traveling to/from the Refinery is estimated to be about 55 per day to transport gasoline and diesel fuels, pentane, alkylate and ethanol. The truck trips are expected to occur throughout 24 hours each day. To assure a conservative analysis, it was assumed that they would occur during an eight-hour workday with about seven trucks traveling during peak hours (or about 21 passenger car equivalents). However, the traffic analysis for the morning peak hour indicates that there would be no change in the LOS for all but one intersection in the Paramount area. The Lakewood Blvd./Somerset Blvd. intersection is expected to change from LOS A to B, which is not considered significant since traffic flow would not be adversely impacted. Therefore, no permanent significant adverse traffic impacts are expected during the morning peak hour.

Furthermore, the proposed project is not expected to result in a significant change in LOS or increase the volume-to-capacity by two percent or more at any of the local intersections. Therefore, the potential impacts from the proposed project is not anticipated to lead to adverse CO impacts on the local population.

6.2 Analysis of Impacts of the Current Proposed Project Modification

The construction activities associated with the Clean Fuels Project described in the April 2004 EIR have been largely completed and no other construction activities associated with the Clean Fuels Project will occur during the timeframe that T-5006 is being modified, i.e., the internal floating roof is being installed. The summary of the project impacts from the 2004 Final EIR do not reflect the current conditions at the Refinery, but rather summarize the conclusions of the 2004 Final EIR.

6.2.1 Air Quality Impacts

Construction Impacts

During the construction phase of the modification, the Refinery will operate one crane, one forklift, and four welders on the peak day. The construction emissions are included in Appendix B and presented in Table 3. The construction activities associated with the Clean Fuels Project described in the April 2004 EIR have been largely completed and no other construction activities associated with the Clean Fuels Project will occur during the timeframe that T-5006 is being modified, i.e., the internal floating roof is being installed. Therefore, the only construction activities that will be

occurring at the Refinery are those associated with the currently proposed project modification, as shown in Table 3. Construction activities are expected to be limited to the use of welders, cranes, and forklifts. No grading activities are required because the site is already flat and graded. The construction activities associated with the currently proposed project modifications will not overlap with any other construction activities. The construction emissions associated with the currently proposed project modifications are expected to be below the construction emissions evaluated in the April 2004 Final EIR, and below the SCAQMD significance thresholds. Therefore, construction emissions associated with the proposed modifications are less than significant. Therefore, construction emissions from the proposed modifications will not create any new significant adverse environmental impacts.

TABLE 3

SUMMARY OF PEAK CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE CURRENTLY PROPOSED PROJECT MODIFICATIONS (pounds per day)

Construction Activities[1]	**CO**	**VOC**	**NOx**	**SOx**	**PM10**
Project Construction Emissions from the April 2004 Final EIR	307.7	32.3	75.8	6.0	118.2
CEQA Significance Level	550	75	100	150	PM10
Significant	**NO**	**NO**	**NO**	**NO**	**NO**
Currently Proposed Project Modifications Construction Emissions[2]	26.3	29.8	35.1	0.04	2.7
SCAQMD Thresholds	550	75	100	150	150
Significant	**NO**	**NO**	**NO**	**NO**	**NO**

(1) The April 2004 Final EIR construction emissions have already occurred and will not overlap with the Currently Proposed Project Modifications Construction Emissions detailed in this Addendum.
(2) See Appendix B for detailed emission calculations

Operational Impacts

The changes associated with the currently proposed project modifications are that T-5006 will be converted from a fixed roof tank to an internal floating roof tank, and the service on T-5006 will change from asphalt to ethanol. Fixed roof tanks consist of a cylindrical steel shell with a permanently affixed roof. Emission losses from fixed roof tanks are caused by changes in temperature, pressure, and liquid level. Fixed roof tanks are equipped with a pressure/vacuum vent which allow the tanks to operate at a slight internal pressure or vacuum to prevent the release of vapors during very small changes in temperature, pressure or liquid level; larger changes result in emission releases. Emissions from fixed roof tanks are generally higher than for other types of tanks. By comparison, an internal floating roof tank has both a permanent fixed roof and a floating roof inside. The deck in internal floating roof tanks rises and falls with the liquid level and floats directly on or rests several inches above the liquid surface. Installing a floating roof minimizes evaporative losses from the stored liquid. Evaporative losses from floating roofs come from deck fittings, deck seams, and the annular space between the deck and tank wall.

Under the current operating parameters, T-5006, a fixed roof tank, average reported losses of 573.16 pounds of VOC in the 2004-2005 and 2005-2006 annual emissions report (AER program). By converting T-5006 into an internal floating roof tank, and changing the service from asphalt to ethanol, the EPA Tanks 4.09d model estimated a loss of 519.65 pounds per year (see Appendix B). The net reduction of operational emissions from the modifications is 53.51 pounds per year, or 0.15 pound per day (see Table 4). In addition, the proposed project modifications will add gasoline and ethanol filter systems, which will require fugitive components and generate additional VOC emissions. The estimated VOC emission increase associated with the additional filter systems is 90 pounds per year, or about 0.25 pound per day. Therefore, the modification to the proposed project is less than the SCAQMD significance threshold and less than significant (see Table 4). In addition, the net increase (0.10 pound per day of VOC) between the proposed revised project and the project evaluated in the April 2004 Final EIR is less than significant.

TABLE 4

PARAMOUNT CLEAN FUELS PROPOSED REVISED PROJECT INCREMENTAL CHANGE TO OPERATIONAL EMISSIONS
(pound per day)

SOURCE	CO	VOC	NOx	SOx	PM10
Proposed Tank Modification	0	-0.15	0	0	0
Proposed New Filter Systems	0	0.25	0	0	0
Proposed Revised Project Total	0	0.10	0	0	0
CEQA Thresholds	**550**	**55**	**55**	**150**	**150**
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**

The total revised project emissions are summarized in Table 5. As shown in Table 5, the conclusions regarding the significance of air quality impacts during project operation are unchanged from the conclusions in the April 2004 Final EIR, i.e., emissions of CO, NOx, SOx, and PM10 remain less than significant and VOC emissions are significant. The increase in VOC emissions of 0.10 pound per day is not considered to be a substantial emission increase and, therefore, does not make an existing significant impact substantially worse.

Toxic Air Contaminants

The modifications to the proposed project are expected to result in essentially the same VOC emissions (see Table 4) and associated toxic air contaminant emission rates. A screening health risk assessment (HRA) was completed for VOC emissions from T-5006 storing asphalt and another screening HRA was completed for VOC emissions from T-5006 storing ethanol (denatured with gasoline) (see Appendix B). The Tier 1 screening health risk assessment was prepared for the proposed emissions increase using the SCAQMD Rule 1401 Risk Assessment Procedures (Version 7.0). The screening HRA used the VOC emission estimates discussed in the above sections, which were speciated for toxic air contaminants. The emissions of each TAC were then compared with the SCAQMD's screening risk values (SCAQMD, 2005).

TABLE 5

PARAMOUNT CLEAN FUELS PROPOSED REVISED PROJECT
PEAK OPERATIONAL EMISSIONS[(1)]
(pound per day)

SOURCE	CO	VOC	NOx	SOx	PM10
Project Operational Emissions from the April 2004 Final EIR	103.9	66.4	51.9	0.7	69.4
Proposed Revised Project	0	0.10	0	0	0
Total Revised Operational Emissions[(1)]	103.9	66.5	51.9	0.7	69.4
CEQA Thresholds	**550**	**55**	**55**	**150**	**150**
Significant?	**NO**	**YES**	**NO**	**NO**	**NO**

1 Project operational emissions from the April 2004 Final EIR plus project operational emissions from the currently proposed project modifications

The emission estimates and applicable screening values for compounds that are carcinogens or have chronic health impacts are shown in Appendix B. The emissions from T-5006 containing asphalt were compared to the SCAQMD screening risk values for carcinogens, and acute and chronic TACs. In all cases the estimated emissions were below the screening level. When summing the health risks of all toxic air contaminants, the pollutant screening index (PSI) was below the SCAQMD threshold of one. A PSI of less than one correlates to a maximum cancer risk of less than 1 per million and a chronic or acute hazard index of less than 1.0.

In addition, the emissions from T-5006 containing ethanol were compared to the SCAQMD screening risk values for carcinogens, and acute and chronic TACs. For all pollutants, the TAC emissions from the tank storing ethanol were well below the screening health risk values for carcinogens, and acute and chronic TACs. The PSI was below the SCAQMD threshold of one, therefore, no significant carcinogenic, chronic, or acute health impacts are expected from T-5006 storing ethanol.

The total TAC impacts associated with the Paramount Clean Fuels project would include the TAC impacts from the April 2004 Final EIR and the currently proposed project modifications. The cancer risk impacts evaluated in the April 2004 Final EIR indicated that the proposed project would result in a decreased cancer risk of 0.68 per million for the maximum exposed individual worker (MEIW) and a decreased cancer risk of five per million to the maximum exposed individual resident (MEIR). A screening analysis was completed for the emissions from the currently proposed project, which concluded that the emissions were less than 1.0, meaning the cancer risk was less than one per million. Based on the above, the TAC emissions from the Paramount Clean Fuels project (including the currently proposed project emissions) would be less than one per million and well below the significance criteria of 10 per million.

The acute health impacts evaluated in the April 2004 Final EIR indicated that the proposed project would result in an acute hazard index of 0.017. A screening analysis was completed for the

emissions from the currently proposed project, which concluded that the acute impacts were 0.00000376 or 3.76 x 10^{-6} (see Appendix B). Adding the acute hazard index from the April 2004 Final EIR to the acute hazard index from the currently proposed project indicates that the total acute hazard index is about 0.017, which is well below the significance criteria of 1.0.

The chronic health impacts evaluated in the April 2004 Final EIR indicated that the proposed project would result in a chronic hazard index of 0.0010. A screening analysis was completed for the emissions from the currently proposed project, which concluded that the chronic impacts were 0.00815 or 8.15 x 10^{-3} (see Appendix B). Adding the acute hazard index from the April 2004 Final EIR to the acute hazard index from the currently proposed project indicates that the total acute hazard index is about 0.00915, which is well below the significance criteria of 1.0.

Based on the TAC analysis, the significance conclusions from the April 2004 Final EIR are not expected to change. The carcinogenic and non-carcinogenic health impacts are expected to remain less than significant with the proposed project modification.

Greenhouse Gas Emissions

Construction emissions associated with the currently proposed project modifications include emissions associated with four welders, one crane, and one forklift. The construction emissions from the previously approved project included numerous construction equipment including backhoes, compressors, forklifts, generators, manlifts, welding machines, cranes, front end loaders, and dump trucks. Therefore, the construction equipment and related emissions associated with the currently proposed project are well within the scope of the previous analysis. Further, emissions from construction related equipment will cease when construction activities have been completed. The greenhouse gas emissions would be minor compared to the existing project evaluated in the April 2004 Final EIR and are not expected to be a substantial change to the existing project.

Operational and construction emissions for the existing project were evaluated in the April 2004 EIR. At the time, greenhouse gas emissions were not required to be evaluated. The currently proposed project modifications are not expected to generate additional greenhouse gas (GHG) emissions. The operation of the currently proposed project modifications is not a source of GHG emissions. The currently proposed project modifications will change the service of one tank from asphalt to ethanol and add two new filter systems, which include fugitive components (flanges). These modifications will only generate VOC emissions (0.10 pound per day) and no combustion sources are included as part of the project modifications so no GHG emissions are expected.

6.2.2 Hazards and Hazardous Materials Impacts

The currently proposed project modifications will only change the service on one tank from asphalt to ethanol and two new filter systems will be added. The hazards associated with the storage and transport of ethanol were evaluated in the April 2004 Final EIR and were determined to be less than significant. No additional transport of ethanol is required as part of the currently proposed project modifications. Therefore, no new transportation hazards or increased risk will be introduced due to the currently proposed project.

The currently proposed project modifications will allow the storage of ethanol in a tank that currently stores asphalt. Based on the hazard analysis in the April 2004 Final EIR, the hazards of concern associated with ethanol is a flammable vapor cloud that could ignite. The lower flammable limit (LFL) is the lowest concentration that could burn if an ignition source was present. The maximum distance to the LFL due to a leak of ethanol was determined to be about 140 feet in the April 2004 Final EIR. As shown in Figure 2, the distance from Storage Tank T-5006 is well over 140 feet from the property boundary (about 500 feet). Therefore, the hazards associated with a release of ethanol from Tank 5006 that would ignite are expected to remain within the boundaries of the existing refinery and not result in a significant hazard impact. Therefore, no significant hazard impacts associated with the currently proposed project modifications are expected.

6.2.3 Transportation/Traffic Impacts

The impacts associated with transportation and traffic were evaluated in the April 2004 Final EIR and were determined to be less than significant. The number of construction workers in the April 2004 Final EIR was about 60 construction workers, generating about 120 one-way trips per day. The construction activities associated with the project evaluated in the April 2004 Final EIR have essentially been completed and construction activities associated with the currently proposed project modifications are not expected to overlap with any other construction activities. The number of construction workers required for the currently proposed project modifications is expected to be 10, generating about 20 one-way trips per day. Therefore, the transportation and traffic impacts associated with the currently proposed project modifications are expected to be less than significant because it will require fewer peak vehicle trips per day (20 versus 120) than evaluated in the 2004 Final EIR.

7.0 ADDITIONAL TOPICS FOUND NOT TO BE POTENTIALLY SIGNIFICANT

Section 7.0 discusses the remaining areas found not to be potentially significant in both the April 2004 Final EIR for the Clean Fuels Project and in this Addendum.

7.1 Aesthetics

April 2004 Final EIR: There are no scenic views or scenic highways in the vicinity of the Refinery. The proposed project will occur completely within the confines of the existing Refinery and, therefore, will not damage scenic resources such as trees, rock outcroppings, etc. No significant adverse impacts on scenic views or highways are expected.

The proposed new equipment will include a new naphtha splitter, a benzene saturation unit, a light naphtha storage chiller, and ethanol unloading and blending facilities. This equipment will appear similar to the existing Refinery equipment. Most of the new equipment will not be visible to the surrounding areas because: (1) existing fencing, structures, and landscaping block views of many portions of the Refinery (e.g., the views of the Refinery from the residential areas are largely blocked by fencing); and (2) most of the new equipment will be located near the center portions of the Refinery, away from the residential areas. The exception is that several new columns are included as part of the proposed project. The columns will be visible from various locations

around the Refinery. Due to the existing industrial setting of the site, these additional structures will not significantly change the visual qualities of the Refinery site so that no significant impacts are expected from the proposed project. The Refinery changes will be indistinguishable by most observers.

The proposed project facilities will comply with all relevant land use and zoning designations. Operations at the Refinery occur throughout the day on a 24-hour basis. The Refinery employs nighttime illumination on top of the taller Refinery structures for security and operational purposes. The existing Refinery towers are illuminated by lighting at night and are visible above the fencing and landscaping along the Refinery's periphery. Additional lighting is expected to be necessary at the Refinery for the proposed project, as lighting for safety and security reasons is required for the new equipment. The increase in lighting is expected to be minor and will not be noticeable outside of the Refinery since the proposed project facilities will be located within the operating portions of the Refinery. Therefore, no significant impacts on aesthetics are expected to occur from the proposed project.

In summary, potential adverse aesthetics impacts associated with the proposed project are less than significant.

2007 Addendum: The revised project would not result in any changes in aesthetic impacts that were evaluated in the April 2004 Final EIR. Storage Tank T-5006 is an existing tank located near the middle of the Refinery (see Figure 1). The addition of an internal floating roof on to the existing tank will not be visible to the surrounding public because the floating roof is added within the shell of the existing fixed roof tank. The appearance of the Tank T-5006 will be unchanged once construction activities are completed. The gasoline and ethanol filter systems are small equipment that will be located near ground level and will not be discernible from existing equipment or visible to the surrounding community. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse aesthetic impacts.

7.2 Agricultural Resources

April 2004 Final EIR: There are no agricultural resources, i.e., food crops grown for commercial purposes, located in or near the vicinity of the Refinery. The proposed project will not involve construction outside of the existing boundaries of the Refinery and no agricultural resources are located within the Refinery. The zoning of the Refinery will remain heavy industrial and only Refinery uses are allowed within this zone. No existing agricultural land will be converted to non-agricultural land uses. Further, the project will not conflict with a Williamson Act contract. Therefore, the proposed project will have no impacts on agricultural resources.

Potential adverse impacts of the proposed project on agricultural resources are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in agricultural impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery and no agricultural resources are

located within the Refinery. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse impacts to agricultural resources.

7.3 Biological Resources

April 2004 Final EIR: The proposed project will be located in a heavy industrial area. The Refinery has been fully developed and is essentially void of vegetation with the exception of some landscape vegetation near the administration building. The Refinery controls the growth of vegetation at the site for fire prevention purposes. All native habitats have long since been removed from the site. The proposed project does not include the acquisition of additional land for use by The Refinery or expansion outside of the Refinery's current boundaries, which further eliminates the potential for biological resource impacts. The project will not have an adverse effect, either directly or indirectly or through habitat modifications, on any sensitive biological species, riparian habitat, or other sensitive natural habitat. There are no significant plant or animal resources, locally designated species, natural communities, wetland habitats, or animal migration corridors that would be impacted by the proposed project. There are no rare, endangered, or threatened species at the Refinery site. The project would not impact any local policies or ordinances that protect biological resources or conflict with the provisions of a Habitat Conservation Plan or other similar plan. Based on the above, no significant impacts on biological resources are expected from the proposed project and this issue will not be addressed in the EIR.

Potential adverse impacts of the proposed project on biological resources are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in biological impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, which is void of sensitive or other biological resources. The construction activities associated with the revised project will be limited to areas where foundations are already present and will not require removing or affecting biological resources in any way. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse impacts to biological resources.

7.4 Cultural Resources

April 2004 Final EIR: There are no prehistoric or historic structures or objects within the Refinery or adjacent areas. The Los Angeles County Historical Directory does not record any historic sites within the City of Paramount. The Old Downey Cemetery is the nearest historic site to the Refinery. The cemetery is located at the corner of Lakewood Boulevard and Gardendale Street, about 0.75 mile northeast of the project site. The proposed improvements will not affect this historic site or other historic structures in the area. No existing structures at the Refinery are considered architecturally or historically significant by the City or any other group.

The entire Refinery site has been previously graded and developed. The larger Refinery structures and equipment are supported on concrete foundations. The remainder of the site is unpaved. Any

archaeological or paleontological resources that may have been present prior to development are not expected to be found at the site due to past disturbance. In addition, no known recorded archaeological sites are located at or near the Refinery.

No significant impacts to archaeological/historical/paleontological or cultural resources assciated with the Paramount Clean Fuels Project are expected at the Refinery.

2007 Addendum: The revised project would not result in any changes in impacts to cultural resources that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, and no archaeological, historical, or paleontological resources have been found at the Refinery. The construction activities associated with the revised project will be limited to areas where foundations are already present and does not include grading that could impact subsurface resources. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse impacts to cultural resources.

7.5 Energy

April 2004 Final EIR: The Refinery is currently served by Southern California Edison (SCE) for electricity. The Refinery has recently installed a Cogeneration Unit that provides most of the existing Refinery's electrical power needs. Southern California Gas Company provides natural gas service to the Refinery.

Operation of the proposed project will not require modifications of power and natural gas systems at the Refinery. Existing natural gas lines run parallel to the Refinery along Lakewood and Somerset Boulevards and also connect to Refinery equipment on site. The proposed project will not add any new combustion equipment to the Refinery. The proposed project will result in an increase in natural gas purchased over the last several years since some existing equipment will be fired up that has not been continuously operated in the few years. However, the proposed project is not expected to result in an increase in the use of natural gas over peak historical levels. The Refinery's natural gas consumption would represent about one-hundredth of one percent of the total natural gas consumption in southern California. Therefore, no significant impact to the natural gas supply is expected as a result of operation of the proposed project.

The proposed project is not expected to result in a significant increase in electricity purchased from southern California over historic levels. The proposed project will require additional electricity above that which can be supplied by the Cogeneration Unit. However, the incremental electricity use (above the project baseline) will be less than the peak historic electrical power purchases from Southern California Edison by the Refinery so no significant impacts on electricity are expected.

Potential adverse impacts of the proposed project on energy resources are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in energy impacts to those that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are not expected to require electricity or natural gas to operate. The only use of energy

resources would be diesel fuel to operate four welders and one crane during the construction phase. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse impacts to energy resources.

7.6 Geology and Soils

April 2004 Final EIR: The City of Paramount is located within the seismically active region of Los Angeles. The most significant potential geologic hazard at the Refinery is seismic shaking from future earthquakes generated by active or potentially active faults in the region. No faults or fault-related features are known to exist at the project site. The site is not located in any Alquist-Priolo Earthquake fault zone and is not expected to be subject to significant surface fault displacement.

Based on the historical record, it is highly probable that earthquakes will affect the Los Angeles region in the future. Research shows that damaging earthquakes will occur on or near recognized faults which show evidence of recent geologic activity. The proximity of major faults to the Refinery increases the probability that an earthquake may adversely affect the Refinery

New structures must be designed to comply with the Uniform Building Code Zone 4 requirements since the proposed project is located in a seismically active area. The City of Paramount is responsible for assuring that the proposed project complies with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage. The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site.

The Refinery will be required to obtain building permits, as applicable, for all new structures at the site. The Refinery shall submit building plans to the City of Paramount for review. The Refinery must receive approval of all building plans and building permits to assure compliance with the latest Building Code adopted by the City prior to commencing construction activities. The issuance of building permits from the local agency will assure compliance with the Uniform Building Code requirements which include requirements for building within seismic hazard zones. No significant impacts from seismic hazards are expected since the project will be required to comply with the Uniform Building Codes.

During construction of the proposed project, the possibility exists for temporary erosion resulting from excavation and grading activities. These activities are expected to be minor since the proposed project will occur within already developed facilities in areas with generally flat topography. The proposed project involves the addition of new equipment to existing facilities so

major grading/trenching is not expected to be required and is expected to be limited to minor foundation work and minor trenching for piping. Therefore, no significant impacts related to soil erosion are expected. No significant change in topography is expected because little grading/trenching is required that could substantially increase wind erosion or runoff from affected sites. Relative to operation, no change in surface runoff is expected because surface conditions will remain relatively unchanged. Further, surface runoff is minimized because surface runoff at all facilities is typically captured, treated, and released to the public sewerage system or storm drain system. The proposed project site is not subject to landslide or mudflow since the site is flat. No other unique geological resources have been identified at the Refinery.

Potential adverse impacts of the proposed project on geological resources are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes to geology and soils impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, and will require building permits from the City of Paramount. There are no new structures associated with the revised project as T-5006 is an existing tank. The construction activities associated with the revised project will be limited to areas where foundations are already present and does not include grading nor will result in an increase in paved areas. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse impacts to geology and soils.

7.7 Hydrology and Water Quality

April 2004 Final EIR: The Refinery maintains onsite wastewater treatment equipment. Wastewater from the Refinery is treated and sampled in compliance with the County Sanitation Districts of Los Angeles County Industrial Wastewater Discharge Permit. The County Sanitation Districts of Los Angeles County places limitations on wastewater parameters including oil and grease, pH, temperature, heavy metals, organic compounds and so forth. Wastewater that complies with the County Sanitation Districts of Los Angeles County permit requirements is discharged to the sewer. Wastewater that does not comply is returned to the source for further treatment.

The proposed project is not expected to increase wastewater generated over historic volumes by the Refinery. Further the proposed project is not expected to require any modifications to the Refinery's industrial wastewater discharge permit. Wastewater will continue to be discharged in compliance with the County Sanitation Districts of Los Angeles County Industrial Wastewater Discharge permit and no significant impacts on wastewater are expected from the proposed project.

The proposed project is not expected to result in an increase in water use at the site over peak historical uses so that no significant impacts on water demand are expected. No increase in the amount of ground water supplies used at the Refinery is expected and the proposed project would not substantially deplete ground water supplies or interfere with ground water recharge.

No significant changes to surface water runoff are expected due to the proposed project. The project will be constructed within currently developed sites. Runoff from the facilities will be handled in the existing surface water treatment systems. Runoff will be collected, treated (if applicable), and discharged under the requirements of the existing storm water permit, NPDES permit or the Industrial Wastewater Discharge Permit. Because the topography of the site will remain unchanged during operation, the proposed project is not expected to increase the surface water runoff at any location. Therefore, no significant impacts are expected to result from water runoff associated with the proposed project.

The proposed project is located at an existing Refinery, which is not located within a 100-year flood hazard area. Consequently, the proposed project would not expose people or property to any known water-related hazards or impede or redirect flood flows. The proposed project would not result in the construction of any new housing. Therefore, no significant impact on flooding is expected from the proposed project.

Potential adverse impacts of the proposed project on hydrology and water quality are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes to hydrology and water quality impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project do not require the use of any additional water, nor will they generate additional wastewater. The construction activities associated with the revised project will be limited to areas where foundations are already present and does include grading, does not require water for fugitive dust control, will not result in an increase in paved areas, and will not generate additional storm water runoff. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse impacts to hydrology and water quality.

7.8 Land Use and Planning

April 2004 Final EIR: The Refinery is zoned M-2, Heavy Manufacturing. In a number of settings throughout the area, the land use pattern varies widely on a parcel by parcel basis and reflects an area in transition from a variety of older land uses (that include the Refinery) to newer, more consistent development (including apartment houses and commercial land uses, e.g., grocery stores and a Walmart). Several schools are located near the Refinery including Wirtz School, (located at the corner of Contreras and Downey Avenues), Baxter School (located east of Lakewood Boulevard in the City of Bellflower), and Paramount High School (located on the opposite side of Downey Avenue).

The proposed modifications to the Refinery are consistent with the M-2 zoning classification. Operation of the proposed project will not alter existing land uses at the Refinery and will not conflict with the land use patterns delineated by the local cities. All operations will occur within the confines of the existing Refinery so that no change in land use is expected. The proposed modifications are expected to be consistent with the existing zoning and land uses, which are currently developed within industrial areas. Therefore, the proposed project is not expected to create significant adverse impacts on land use.

Potential adverse impacts of the proposed project on land use are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in land use impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, which is zoned for heavy industrial use and currently used as a refinery. The construction activities associated with the revised project will be limited to areas where foundations are already present and will not include construction outside of the existing Refinery boundaries. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse land use impacts.

7.9 Mineral Resources

April 2004 Final EIR: There are no known mineral resources located in the City of Paramount. There are no mineral resources such as aggregate, coal, clay, shale, etc., located within the vicinity of the Refinery. The proposed project will not involve construction outside of the existing boundaries of the existing Refinery. Therefore, the proposed project will have no impacts on mineral resources.

Potential adverse impacts of the proposed project on mineral resources are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in impacts to mineral resources that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, which is void of mineral resources. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse impacts to mineral resources.

7.10 Noise

April 2004 Final EIR: The currently proposed project will add equipment to the existing Refinery that could generate noise so that additional noise sources will operate at the facility. The main sources of noise associated with the proposed project would be valves, pumps and compressors. The Refinery will require that noise levels associated with all new equipment be limited to no more than 85 dbA at three feet. This noise specification will be enforced and included as part of the equipment purchase agreement for all new and modified equipment. Assuming an operational noise level of 85 dBA at 3 feet, and a six dBA noise attenuation for every doubling of distance, noise levels associated with new equipment are expected to be reduced to 60 dBA or less at about 100 feet from the sources and not increase the overall noise levels at the Refinery. The noise levels in the area are expected to comply with the City's Noise ordinance.

Potential adverse impacts of the proposed project on noise are expected to be less than significant .

2007 Addendum: The revised project would not result in any changes in noise impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, a heavy industrial area. The construction activities associated with the revised project will include four welders and one crane. Therefore, construction noise associated with the revised project is expected to be less than the project evaluated in the April 2004 Final EIR (which included air compressors, backhoe, bulldozer, plate compactor, dump truck, cranes, welders, and generators). Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse noise impacts.

7.11 Population and Housing

April 2004 Final EIR: The proposed project would require modifications to an existing Refinery and will not involve an increase, decrease or relocation of population. Labor (an estimated 60 employees) for construction is expected to come from the existing labor pool in southern California. Operation of the proposed project is expected to require no more than 10 new permanent employees at the Refinery. The additional new employees are expected to come from the large labor pool in southern California and is not expected to require additional housing as sufficient housing exists in the Paramount area and southern California region in general. Therefore, construction and operation of the proposed project is not expected to have significant impacts on population or housing, induce substantial population growth, or exceed the growth projections contained in any adopted plans.

Potential adverse impacts of the proposed project on population and housing are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in impacts to population and housing that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, which is zoned for heavy industrial use and currently used as a refinery. The revised project will not displace any housing. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse use impacts to population and housing.

7.12 Public Services

April 2004 Final EIR: The Refinery currently maintains personnel and equipment on-site for fire suppression efforts and posts fire emergency procedures. Additional fire protection services are provided by the Los Angeles County Consolidated Fire District. There are fire hydrants along Lakewood and Somerset Boulevards, and Downey Avenue which provide additional water flow in the event of an emergency. The Refinery will continue to operate fire protection services needed at the Refinery. It is not expected that the proposed project will require an increase in the level of fire protection service needed to protect and serve the Refinery.

The City of Paramount contracts with the Los Angeles County Sheriff's Department for police protection and law enforcement services. The Refinery is fenced and entry is restricted to

authorized individuals. Entry and exit of the construction work force will be monitored and no additional or altered police protection is expected to be necessary. The operation of the proposed project will not require additional workers and entry to the facilities is restricted. Therefore, no impact to the local police department is expected related to the proposed project.

The proposed project would not affect the maintenance of public facilities, create an increase in demand for additional public facilities such as parks, or create an increase in demand for new roads. Because, the proposed project consists of changes in operations entirely within the boundaries of an existing facility, it will not require other governmental services than are currently provided to the facility. Therefore, the project impacts on public services are expected to be less than significant.

Potential adverse impacts of the proposed project on public services are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in impacts to public services that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, which maintains 24-hour security and maintains personnel and equipment on-site for fire suppression efforts. The revised project modifications will not require any additional public services. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse use impacts to public services.

7.13 Recreation

April 2004 Final EIR: The proposed project will not increase the local population growth or alter the population distribution so there will be no significant adverse impacts or demand for new neighborhood or regional parks, or other recreational facilities. The additional new workers that will be required at the Refinery (up to 10 workers) are expected to come from the existing labor pool in southern California. The proposed project will be located in the central portion of the site and will not affect the Refinery's own recreation area. Therefore, no significant impacts to recreation are expected from the proposed project.

Potential adverse impacts of the proposed project on recreational facilities are expected to be less than significant.

2007 Addendum: The revised project would not result in any changes in recreation impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project are still located within the existing boundaries of the Refinery, which is zoned for heavy industrial use and currently used as a refinery. The construction activities associated with the revised project will be limited to the Refinery and will not impact recreational areas. Further, no additional refinery workers will be required so no additional recreational facilities will be required. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse recreation impacts.

7.14 Solid/Hazardous Waste

April 2004 Final EIR: The Refinery generates non-hazardous solid or municipal wastes. Most of these wastes are generated in the administrative operations of the Refinery. The proposed project is not expected to result in an increase in solid waste generated at the Refinery so no significant impacts are expected.

The proposed project may result in an increase in catalyst used at the Refinery, due to the istallation of the Benzene Saturation and Isomerization Unit, could be considered hazardous waste. The catalysts are expected to be composed of nickel oxide, aluminum oxide, and zinc oxide. These types of catalysts are expected to be sent to a reclamation facility for recycling of their heavy metal content. Further, waste (including catalysts) generated by the operation of the project would be required to be managed and/or disposed of in compliance with federal, state, and local statutes and regulations related to solid and hazardous waste management.

Based on the above considerations, no significant adverse solid/hazardous waste impacts are expected.

2007 Addendum: The revised project would not result in any changes in solid/hazardous waste impacts that were evaluated in the April 2004 Final EIR. The modifications associated with the revised project include the addition of gasoline and ethanol filter systems. There are numerous filter elements in the gasoline filter system and four filter elements in the ethanol filter system. Paramount estimates that it will need to replace all filter elements approximately once per quarter or about four times per year. The used filter elements (a maximum of about six inches in diameter by about 56 inches in length) are expected to be handled as hazardous waste because of their contact with petroleum products and transported along with other similar wastes to an appropriate disposal facility.

There are no Class I hazardous waste disposal sites within the southern California area. Hazardous waste generated by the Refinery is transported to a licensed hazardous waste disposal facility located either in-state or out-of-state. There are two hazardous waste facilities in California: 1) the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility located in Kings County; and, 2) the Clean Harbors facility located in the city of Buttonwillow in Kern County. Currently the Kettleman Hills facility has an estimated available capacity of four million cubic yards. However, upon completion of a berm expansion, the capacity is projected to increase by five million cubic yards for a total of nine million cubic yards. The Kettleman Hills facility expects to continue receiving wastes for approximately nine years under its current permit. The facility is in the process of permitting a new landfill which would extend the life of the operation another 15 years (Personal Communication, Terry Yarbough, Chemical Waste Management Inc.). The Clean Harbors facility in Buttonwillow has a remaining capacity of approximately 9 million cubic yards. The expected life of the Clean Harbors Landfill is approximately 40 years (Personal Communication, Marianna Buoni, Safety-Kleen).

Hazardous waste also can be transported to permitted facilities outside of California. The nearest out-of-state landfills are U.S. Ecology, Inc., located in Beatty, Nevada; USPCI, Inc., in Murray, Utah; and Envirosafe Services of Idaho, Inc., in Mountain Home, Idaho. Incineration is provided at

the following out-of-state facilities: Aptus, located in Aragonite, Utah and Coffeyville, Kansas; Rollins Environmental Services, Inc., located in Deer Park, Texas and Baton Rouge, Louisiana; Chemical Waste Management, Inc., in Port Arthur, Texas; and Waste Research & Reclamation Co., Eau Claire, Wisconsin.

Based on the above, sufficient landfill capacity is expected to be available to handle the estimated increase in waste generated by the proposed project. Therefore, the proposed modifications will not alter the conclusions from the April 2004 Final EIR that the proposed project will not cause significant adverse solid or hazardous waste impacts.

8.0 CONCLUSIONS

Paramount is proposing to modify its Clean Fuels Project by converting an existing fixed roof storage tank to a fixed roof tank with an internal floating roof and changing the service of the tank from asphalt to ethanol and adding an ethanol and gasoline filter system. As shown in Sections 6.0 and 7.0, the analysis of the current proposed project modification indicated that it will not create new significant adverse impacts in any environmental areas analyzed in the April 2004 Final EIR or make substantially worse any existing significant adverse impacts. Based on the environmental analysis prepared for the current proposed project modification, the SCAQMD has quantitatively and qualitatively demonstrated that the proposed project modification qualifies for an Addendum to make the previously certified April 2004 Final EIR complete.

9.0 REFERENCES

South Coast Air Quality Management District, 2003. Notice of Preparation and Initial Study for the Draft Environmental Impact Report for Paramount Petroleum Refinery – Reformulated Fuels Project, March 2003.

South Coast Air Quality Management District, 2003. Draft Environmental Impact Report for the Paramount Refinery Clean Fuels Project, December 2003.

South Coast Air Quality Management District, 2004. Final Environmental Impact Report for the Paramount Refinery Clean Fuels Project, April 2004.

South Coast Air Quality Management District, 2005. Risk Assessment Procedures for Rules 1401 and 212, Version 7.0.