

DRAFT

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET
SAN FRANCISCO, CA 94109**

CEQA INITIAL STUDY

June 6, 2001

BACKGROUND

Project Title

Martinez Refining Company's (MRC, BAAQMD Plant #11) request for Authority to Construct and Permit to Operate from the Bay Area Air Quality Management District (BAAQMD) for the proposed MTBE (methyl tert-butyl ether) Removal Project

CEQA Background

This project is subject to the California Environmental Quality Act (CEQA).

Per the April 12, 2001 letter from Equilon, the project was reviewed by the Contra Costa County Community Development Department and the Contra Costa County Health Services Department, Hazardous Materials Program. Based on the county staff reviews, the Community Development Department determined that the project is not subject to the County land use permit requirements specified in Article 84.63-10.

For those portions of the project in the City of Martinez, only ministerial permits are required. Portions of the project within the City of Martinez are limited to minor piping changes required to modify pump suction and discharge lines. Any building permits (if required) for this work will be ministerial.

Nonetheless, the BAAQMD has determined that completion of a CEQA Initial Study is required to determine whether a Negative Declaration or EIR is required for this project.

Project Description

Martinez Refining Company (MRC), a Division of Equilon Enterprises, is proposing to modify its refinery so that it can produce California Air Resource Board (CARB) Phase III gasoline without MTBE, a gasoline oxygenate.

This project was initiated in response to a March 25, 1999 Executive Order by the Governor of California, which prohibits the use of methyl tertiary butyl ether (MTBE) in gasoline in California by no later than December 31, 2002 (Executive Order D-5-99). MBTE, which is an oxygenating agent added to gasoline to reduce air pollution from automobiles, has been determined to pose an environmental threat to groundwater and drinking water. Ethanol is the only alternate oxygenate that is allowed for use in gasoline blends to replace MTBE.

This project will not introduce any new emission sources. However, this project will affect several units as fugitive components are either added or modified. Additionally, two tanks currently permitted to store MTBE and/or gasoline/gasoline components (S-2445 and S-2446) will be permitted for greater utilization of gasoline and gasoline components storage.

This is a reallocation of tank service within the refinery and does not affect overall production. Overall gasoline production from the refinery will not increase.

Some of the gasoline produced at MRC will be blended with an alternate oxygenate (i.e., ethanol). However, unlike MTBE which was blended at MRC, the new oxygenate will be added offsite. Equilon plans to add ethanol at the San Jose and South San Francisco distribution terminals. At this time, these are the only locations in the Bay Area at which Equilon plans to add ethanol. MRC does not expect any change in the quantity of gasoline sent from the refinery to the terminals after the project is complete. Future market conditions may require ethanol to be added at additional terminals.

This project includes the changes proposed at Equilon's Martinez refinery only. The offsite blending of ethanol is outside the scope of this project and is not included in this CEQA analysis. The impact of ethanol blending at truck rack distribution points located outside the Equilon project site will not be addressed in this evaluation.

Permits for new or modified sources for the affected distribution terminals are the responsibility of Equilon Transportation. The marketing terminal at South San Francisco plans to add a tank (10,440 barrels capacity) for storing ethanol and to make some minor modifications to the loading facilities in order to in line blend the ethanol and gasoline prior to loading. On May 21, 2001, the District received Permit Application Number 2895 for the South San Francisco terminal. CEQA review of this project will be conducted as part of the permit application.

Equilon does not plan to submit a permit application for the San Jose terminal since the only new equipment (other than fugitive components less than 10 lb/day emissions) is a tank that will store diesel (exempt from District permitting). The ethanol will be stored in an existing tank already permitted for higher vapor pressure material. The changes at the San Jose terminal are not subject to District CEQA review because the changes proposed do not require permit review by the District.

MRC already meets the sulfur specifications for Phase III gasoline and no additional de-sulfurization equipment is needed. As a result, there is no increase in sulfur dioxide emissions to result from the MTBE Removal Project.

Permit Application Number: 1821

Name, Address, Contact and Phone Number of Proponent

Teresa K. Makarewicz
Manager, Environmental Affairs
Martinez Refining Company
P. O. Box 711
Martinez, CA 94553-0071

Project Location

Martinez Refining Company
3485 Pacheco Blvd.
Martinez, CA 94553-0071

Lead Agency Contact Person:

Barry G. Young
Principal Air Quality Engineer

Permit Services Division
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

telephone: (415) 749-4721
e-mail: byoung@baaqmd.gov
fax: (415) 749-5030

ENVIRONMENTAL IMPACTS

(Note: All answers are explained on attached sheets.)

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporat ed	Less Than Significant Impact	No Impact
1. Land Use and Planning. Would the proposal:				
a. Conflict with general plan designation or zoning?	_____	_____	_____	_____X_____
b. Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	_____	_____	_____	_____X_____
c. Be incompatible with existing land use in the vicinity?	_____	_____	_____	_____X_____
d. Affect agricultural resources or operations (e.g. impacts to soils or farmlands, or impacts from incompatible land uses)?	_____	_____	_____	_____X_____
e. Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	_____	_____	_____	_____X_____
2. Population and Housing. Would the proposal:				
a. Cumulatively exceed official regional or local population projections?	_____	_____	_____	_____X_____
b. Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)?	_____	_____	_____	_____X_____
c. Displace existing housing, especially affordable housing?	_____	_____	_____	_____X_____
3. Geologic Problems. Would the proposal result in or expose people to potential impacts involving:				
a. Fault rupture?	_____	_____	_____	_____X_____
b. Seismic ground shaking?	_____	_____	_____	_____X_____

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Seismic ground failure, including liquefaction?	_____	_____	_____	<u> X </u>
d. Seiche, tsunami, or volcanic hazard?	_____	_____	_____	<u> X </u>
e. Landslides or mud flows?	_____	_____	_____	<u> X </u>
f. Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?	_____	_____	_____	<u> X </u>
g. Subsidence of the land?	_____	_____	_____	<u> X </u>
h. Expansive soils?	_____	_____	_____	<u> X </u>
i. Unique geologic or physical features?	_____	_____	_____	<u> X </u>
4. Water. Would the proposal result in:				
a. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	_____	_____	_____	<u> X </u>
b. Exposure of people or property to water related hazards such as flooding?	_____	_____	_____	<u> X </u>
c. Discharge into surface waters, or in any alteration of surface water quality (e.g. temperature, dissolved oxygen, or turbidity)?	_____	_____	_____	<u> X </u>
d. Changes in the amount of surface water in any water body?	_____	_____	_____	<u> X </u>
e. Changes in currents, or the course or direction of water movements?	_____	_____	_____	<u> X </u>
f. Change in the quantity of ground waters through direct additions or withdrawals, through interception of an aquifer by cuts or excavations, or through substantial loss of groundwater recharge capability?	_____	_____	_____	<u> X </u>
g. Altered direction or rate of flow of groundwater?	_____	_____	_____	<u> X </u>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
h. Impacts to groundwater quality?	_____	_____	<u> X </u>	_____
i. Substantial reduction in the amount of groundwater otherwise available for public water supplies?	_____	_____	_____	<u> X </u>
5. Air Quality. Would the proposal:				
a. Violate any air quality standard or contribute to an existing or projected air quality violation?	_____	_____	_____	<u> X </u>
b. Expose sensitive receptors to pollutants?	_____	_____	<u> X </u>	_____
c. Alter air movement, moisture, or temperature, or cause any change in climate?	_____	_____	_____	<u> X </u>
d. Create objectionable odors?	_____	_____	_____	<u> X </u>
6. Transportation/Circulation. Would the proposal result in:				
a. Increased vehicle trips or traffic congestion?	_____	_____	<u> X </u>	_____
b. Hazards from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	_____	_____	_____	<u> X </u>
c. Inadequate emergency access or access to nearby uses?	_____	_____	_____	<u> X </u>
d. Insufficient parking capacity on-site or off-site?	_____	_____	_____	<u> X </u>
e. Hazards or barriers for pedestrians or bicyclists?	_____	_____	_____	<u> X </u>
f. Conflicts with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	_____	_____	_____	<u> X </u>
g. Rail, waterborne, or air traffic impacts?	_____	_____	_____	<u> X </u>
7. Biological Resources. Would the proposal result in impacts to:				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Endangered, threatened, or rare species or their habitats (including, but not limited to, plants, fish, insects, animals, and birds)?	_____	_____	_____	<u> X </u>
b. Locally designated species (e.g. heritage trees)?	_____	_____	_____	<u> X </u>
c. Locally designated natural communities (e.g. oak forest, coastal habitat, etc.)?	_____	_____	_____	<u> X </u>
d. Wetland habitat (e.g. marsh, riparian and vernal pool)?	_____	_____	_____	<u> X </u>
e. Wildlife dispersal or migration corridors?	_____	_____	_____	<u> X </u>
8. Energy and Mineral Resources. Would the proposal:				
a. Conflict with adopted energy conservation plans?	_____	_____	_____	<u> X </u>
b. Use non-renewable resources in a wasteful and inefficient manner?	_____	_____	_____	<u> X </u>
c. Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	_____	_____	_____	<u> X </u>
9. Hazards. Would the proposal involve:				
a. A risk of accidental explosion or release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation)?	_____	_____	_____	<u> X </u>
b. Possible interference with an emergency response plan or an emergency evacuation plan?	_____	_____	_____	<u> X </u>
c. The creation of any health hazard or potential health hazard?	_____	_____	_____	<u> X </u>
d. Exposure of people to existing sources of potential health hazards?	_____	_____	_____	<u> X </u>
10. Noise. Would the proposal result in:				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Increases in existing noise levels?	_____	_____	<u> X </u>	_____
b. Exposure of people to severe noise levels?	_____	_____	_____	<u> X </u>
11. Public Services. Would the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:				
a. Fire protection?	_____	_____	_____	<u> X </u>
b. Police protection?	_____	_____	_____	<u> X </u>
c. Schools?	_____	_____	_____	<u> X </u>
d. Maintenance of public facilities, including roads?	_____	_____	_____	<u> X </u>
e. Other governmental services?	_____	_____	_____	<u> X </u>
12. Utilities. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:				
a. Power or natural gas?	_____	_____	<u> X </u>	_____
b. Communications systems?	_____	_____	_____	<u> X </u>
c. Local or regional water treatment or distribution facilities?	_____	_____	_____	<u> X </u>
d. Sewer or septic tanks?	_____	_____	_____	<u> X </u>
e. Storm water drainage?	_____	_____	_____	<u> X </u>
f. Solid waste disposal?	_____	_____	_____	<u> X </u>
g. Local or regional water supplies?	_____	_____	<u> X </u>	_____
13. Aesthetics. Would the proposal:				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Affect a scenic vista or scenic highway?	_____	_____	_____	<u> X </u>
b. Have a demonstrable negative aesthetic effect?	_____	_____	_____	<u> X </u>
c. Create light or glare?	_____	_____	_____	<u> X </u>
14. Cultural Resources. Would the proposal:				
a. Disturb paleontological resources?	_____	_____	_____	<u> X </u>
b. Disturb archaeological resources?	_____	_____	_____	<u> X </u>
c. Affect historical resources?	_____	_____	_____	<u> X </u>
d. Have the potential to cause a physical change which would affect unique ethnic cultural values	_____	_____	_____	<u> X </u>
e. Restrict existing religious or sacred uses within the potential impact area?	_____	_____	_____	<u> X </u>
15. Recreation. Would the proposal:				
a. Increase the demand for neighborhood or regional parks or other recreational facilities?	_____	_____	_____	<u> X </u>
b. Affect existing recreational opportunities?	_____	_____	_____	<u> X </u>

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

16. Mandatory Findings of Significance.

- | | | | | |
|---|-------|-------|-------|--------------|
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | _____ | _____ | _____ | <u> X </u> |
| b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? | _____ | _____ | _____ | <u> X </u> |
| c. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | _____ | _____ | _____ | <u> X </u> |
| d. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? | _____ | _____ | _____ | <u> X </u> |

DISCUSSION OF ENVIRONMENTAL IMPACTS

Project

This project has been assigned Bay Area Air Quality Management District Application Number 1821.

Introduction

This section of the Initial Study explains the reasons that particular items in the checklist were checked. Explanations are provided both for those items involving some potential impact and for those which no impact is anticipated.

1. Land Use and Planning

The refinery lies partially in unincorporated Contra Costa County and partially within the City of Martinez. The MTBE Removal Project work will involve revisions to existing units and will take place principally within the County section of the Refinery. Only minor (ministerial) work will take place within the City of Martinez boundaries.

Per a 4/12/01 letter from Equilon, the site is designated for industrial use in the Contra Costa County General Plan and the zoning is heavy industrial. The present land use at the proposed project site is petroleum refining. The proposed project will be compatible with existing land use and will not result in alteration of the planned land use in the area.

The project is expected to have little or no noticeable impact on adjacent uses. The proposed project would be integrated into the existing refinery.

2. Population and Housing

Per a 4/12/01 letter from Equilon, this project will not alter the location, density or growth rate of the local or regional population and will not affect housing in the surrounding community.

Project Operation: No additional employees are expected to be hired for ongoing operation as a result of this project.

Project Construction: The peak project work will be done during normally scheduled refinery turnarounds in September 2001 and January 2002. The turnarounds will require about 700 workers to accomplish the normal turnaround activities unrelated to the project. The incremental manpower loading for the MTBE Removal Project work is approximately 50 workers added to this total (< 10% of the total manpower needed for the routine turnaround.) The July 2000 turnaround had 1200-1500 workers with no impact on regional population and did not affect regional housing. The estimated additional 50 workers are within the scope of a typical turnaround and it has been demonstrated that the existing infrastructure is capable of supporting this incremental increase.

3. Geologic Problems

Per a 4/12/01 letter from Equilon, the proposed project will not result in unstable earth conditions or changes in geologic structures. Only minor construction and excavation will take place, all within the refinery boundaries.

As described in the permit application, this project will not introduce new emission sources but will alter existing sources by addition or modification of fugitive components and changes in tank service.

The project is not expected to result in or expose people to potential geologic problems.

4. Water

Per the 4/12/01 letter from Equilon, the project will not affect the course, flow or quality of water movements or groundwater at the refinery. New facilities will be designed to minimize the potential for contamination of soil and groundwater. All wastewater at the Refinery is treated and discharged under MRC's NPDES permit from the San Francisco Regional Water Quality Control Board.

The project will increase cooling water use at the Delayed Coking Cooling Tower. The increase will be within current cooling water tower capacity. Blowdown to the Effluent Treatment Plant will increase by about 20 gpm. This represents approximately 0.5% of the total MRC effluent flow and is within current permitted capacity.

Per the 1/18/00 Resolution by the State of California, California Environmental Protection Agency's Environmental Policy Council (EPC), ethanol is the oxygenate that refiners would most likely use as a substitute for MTBE in meeting federal or state minimum oxygen content requirements for California gasoline. The State Water Resources Control Board analysis of the environmental fate and transport of ethanol in Phase 3 California Reformulated Gasoline (CaRFG3) showed that it may extend the length of the plume of hydrocarbon contaminants from leaking underground storage tanks an average of 25%, but decreases the contamination from MTBE in both groundwater and surface water with a corresponding decrease in health risks.

It was further resolved by the EPC that, based on the EPC Report and comments received, the Council determines that there will not be a significant adverse environmental impact on public health or the environment, including any impact on air, water, soil, that is likely to result from the change in gasoline that is expected to be implemented to meet the CaRFG3 regulations approved by the California Air Resources Board.

The project is expected to result in a less than significant impact to water quality.

5. Air Quality

As described in the permit application this project will not introduce new emission sources, but will alter existing sources by addition or modification of fugitive components and changes in tank service. There will be only minor fugitive emission and tank emission increases, all of which will be offset at a 1.15 to 1.0 ratio per Regulation 2-2-302. Best Available Control Technology (BACT) will be applied to any new or modified sources that result in an emissions increase. The project passed the District's Air Toxics Risk Screening.

Per a BAAQMD Engineering Evaluation Report, the project will cause an increase in refinery emissions of precursor organic compounds (POC). Emissions of nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SOx), and particulate matter (PM10) will not increase over current permitted levels.

The project's POC emissions increase (12.0 TPY) must be offset at a 1.15 to 1.0 ratio per Regulation 2-2-302. MRC will provide the required emission reduction credits to fully offset this increase.

Regulation 2-2-301.1 requires that Best Available Control Technology (BACT) be applied to new or modified sources that result in an emissions increase of precursor organic compounds (POC) greater than 10 lb/highest day. This project will comply with the BACT requirements of Rule 2-2.

The project will comply with all applicable New Source Performance Standards (NSPS).

The project is exempt from PSD requirements since the project emissions will not exceed any of the thresholds listed in Regulation 2-2-304 through 2-2-306.

Because MRC is not located within 1,000 feet of any school, the public notification requirements of Regulation 2-1-412 are not triggered.

Because the increase of benzene exceeds its air toxic trigger level, an Air Toxics Risk Screening was required. The SCREEN3 dispersion model was used to estimate maximum 1-hr average off-site ambient concentrations for each source (at residential and non-residential receptors). The maximum cancer risk was estimated to be 1.2 in a million. The chronic non-cancer hazard index was estimated to be about 0.01. Because the tanks (S-19, S-1070, S-1139, S-2445, and S-2446) all meet BACT/TBACT requirements and the overall risk is well below 10 in a million, this risk is acceptable under the District's Risk Management Policy and no further action is required.

Per a 1/18/00 Resolution by the State of California, California Environmental Protection Agency's Environmental Policy Council (EPC), ethanol is the oxygenate that refiners would most likely use as a substitute for MTBE in meeting federal or state minimum oxygen content requirements for California gasoline. The Air Resources Board analysis of the fate and transport of evaporative emissions, combustion byproducts, and transformation products that result from using non-oxygenated fuel or ethanol in CaRFG 3 gasoline showed no net decreases in emissions benefits compared to CaRFG2 in 1998.

It was further resolved by the EPC that, based on the EPC Report and comments received, the Council determines that there will not be a significant adverse environmental impact on public health or the environment, including any impact on air, water, soil, that is likely to result from the change in gasoline that is expected to be implemented to meet the CaRFG3 regulations approved by the California Air Resources Board. The State has completed its analysis and acceptance of the use of ethanol in gasoline blends.

Based on the above discussion and because the expected worst-case POC emission increase is below the BAAQMD CEQA significance level of 80 lb/day, the air quality impacts of this project operation are less than significant.

Project Construction:

Equilon estimates that up to five additional diesel-powered vehicles will be required, during the construction phase of this project, to bring in equipment and supplies. The average daily in and out diesel powered traffic due to this project is expected to be less than 1 truck /day for the duration of the project work. Because most of the construction will be done during scheduled turnarounds there will be a reduction in heater emissions during this time since some refinery heaters will be shut down during the turnarounds.

For the Valero Refinery MTBE Phase-Out Project, the District conducted a very conservative health risk screening analysis for tail-pipe emissions from diesel-fueled trucks making deliveries to the refinery during construction. The maximum health risks were estimated using guideline procedures adopted for use in the Air Toxics Hot Spots (ATHS) Program. The general ATHS Program approach involves using air emission estimates and dispersion modeling to estimate maximum ambient air concentrations of toxic air contaminants (TACs), and then using these concentrations to estimate an individual's maximum exposure and health risk based on toxicity values adopted by the Cal/EPA Office of Environmental Health Hazard Assessment (OEHHA).

A running emission factor of 0.67 grams/mile was used to estimate diesel particulate emissions from trucks. This emission factor is used by the California Air Resources Board (CARB) to estimate emissions from diesel-fueled trucks for the highway scenarios evaluated in Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, CARB, October 2000.

For diesel-fueled engines, OEHHA has adopted a chronic Reference Exposure Level (REL), and inhalation cancer unit risk factor (URF), which use diesel particulate as a surrogate for all emitted TACs. Vehicle activity was assumed to be three round trip diesel-fueled trucks per day. The maximum chronic hazard index was estimated to be 5E-04. The maximum lifetime cancer risk was estimated to be 7.65E-07 (0.77 in one million).

Because the District used the local meteorology of Benicia, which was used for the Valero health risk screening analysis, is similar to that of Martinez and because the District used a very conservative approach in modeling the toxic risks, the estimated maximum chronic hazard index and maximum lifetime cancer risk at Valero refinery are expected to be similar to those values expected at Equilon refinery.

For this project, the worst-case exposure assessment due to public exposure to passing truck traffic has determined that the cancer risk is less than 0.3 in a million per truck round trip per year. The Equilon construction phase's 1 truck trip/average day will result in an annual rate of exposure with a risk that is less than one in a million, even if the construction phase exceeds one year.

Ongoing Operation:

Per my June 6, 2001 telephone discussion with Kathy Wheeler, of Equilon, this project will not change the diesel-powered truck traffic of ongoing operations at the Martinez refinery.

Equilon's current plans are to add ethanol at two Equilon Transportation distribution terminals in the Bay Area – San Jose and South San Francisco. Approximately 8 trucks/24 hour day will deliver ethanol from out-of-state to San Jose and 4 trucks/24 hour day will deliver ethanol from out-of-state to South San Francisco. This project includes the changes proposed at Equilon's Martinez refinery only. The offsite blending of ethanol is outside the scope of this project and is not included in this CEQA analysis. The impact of ethanol blending at truck rack distribution points located outside the Equilon project site will not be addressed in this evaluation.

Permits for new or modified sources for the affected distribution terminals are the responsibility of Equilon Transportation. The marketing terminal at South San Francisco plans to add a tank (10,440 barrels capacity) for storing ethanol and to make some minor modifications to the loading facilities in order to in line blend the ethanol and gasoline prior to loading. On May 21, 2001, the District received Permit Application Number 2895 for the South San Francisco terminal. CEQA review of this project will be conducted as part of the permit application.

Equilon does not plan to submit a permit application for the San Jose terminal since the only new equipment (other than fugitive components less than 10 lb/day emissions) is a tank that will store diesel (exempt from District permitting). The ethanol will be stored in an existing tank already permitted for higher vapor pressure material. The changes at the San Jose terminal are not subject to District CEQA review because the changes proposed do not require permit review by the District.

6. Transportation/Circulation

Per a 4/12/01 letter from Equilon, the proposed project at the refinery will not have any significant transportation impacts.

Project Construction: The peak project work will be done during normally scheduled refinery turnarounds in September 2001 and January 2002. The turnarounds will require about 700 workers to accomplish the normal turnaround activities unrelated to the project. The incremental manpower loading for the MTBE Removal Project work will add approximately 50 workers to this total (< 10% of the total manpower needed for the routine turnaround.) The July 2000 turnarounds had 1200-1500 workers without adversely affecting existing traffic. The estimated additional 50 workers are within the scope of a typical turnaround and it has been demonstrated that the existing infrastructure is capable of supporting this incremental increase.

The project will not involve new roadways and thus will not create design features, which would impact local traffic. Neither will the project involve types of traffic, which would be incompatible with existing traffic. Any dirt movement will be within the refinery and not on public thoroughfares. Workers will have access to existing gravel or paved parking.

Project Operation: No additional employees or traffic movements are expected for ongoing operation as a result of this project.

7. Biological Resources

Per a 4/12/01 letter from Equilon, this project will not have impact on biological resources.

The project will be constructed within the existing refinery area. There are no endangered plant or animal species within the project site, which could be impacted.

8. Energy and Mineral Resources

Per a 4/12/01 letter from Equilon, this project is not expected to have impact on energy and mineral resources.

Energy demand via fossil fuel fired heat will be decreased due to the addition of energy recovery heat exchangers and energy improvements to fired heaters of this project and other work that will be undertaken during the turnarounds. No modifications are necessary to existing energy sources.

In certain federal initiatives, ethanol's use as a fuel source is advocated to promote renewable biomass fuels. Ex-President Clinton signed an Executive Order in 2000 to accelerate the development and use of biomass fuels, products, and chemicals.

9. Hazards

Per a 4/12/01 letter from Equilon, the project will not interfere with emergency response or evacuation plans. Facilities are designed to prevent the occurrence and/or minimize the consequences of catastrophic releases of hazardous substances. The project emissions have passed the District's Toxic Risk screen.

Per a January 18, 2001 letter from Contra Costa County to Equilon, the MTBE Removal Project was reviewed by the staff of the Community Development Department and of the Contra Costa County Health Services Department, Hazardous Material Program. Based on the staff reviews, dated April 14, 2000, the Community Development Department determined that the above-referenced development project is not subject to the land use permit requirements specified in Article 84.63-10 of the County Code because the maximum hazard score is below the threshold score requiring County action.

The potential impacts of ethanol used in gasoline on human health and the environment have been evaluated by the State. The effects were found to not be significant.

The only appreciable change in handling or volume of hazardous material resulting from this Project is the elimination of MTBE use at the refinery. This impact is beneficial.

MRC has its own fire brigade, which is trained to respond to emergencies and it conducts joint training exercises with City of Martinez emergency personnel. MRC's procedures are consistent with and complimentary to the City's emergency response and evacuation plans. Backup emergency support to MRC's on-site crews is provided by the Contra Costa County Fire Protection District.

There is no flammable vegetation in the project area, which could result in an increased fire hazard.

10. Noise

Per the 1993 Shell Oil Clean Fuels Project Environmental Impact Report, significant noise generators in the vicinity of the project site include traffic on Interstate 680, the refinery, vehicular traffic on the local street network, high altitude jet aircraft, general aviation aircraft originating at Buchanan Field located southeast of the study area, and trains on the Southern Pacific Railroad. Noise sensitive land uses in the vicinity of the proposed project include residential areas to the west, south, and southeast of the project site.

Per a 4/12/01 letter from Equilon, the noise levels should not increase significantly due to this project.

New equipment are designed to meet the Equilon Engineering Guidelines and General Specification Noise Standard of 85 dB at 3 feet. The estimated impact at the fenceline would be 0.4 dB (at a baseline background of 60 dB). Per the MRC CFP EIR, this is well within the acceptable level of significance (3 dB increase), and therefore would cause no significant impact.

11. Public Services

Per the 4/12/01 letter from Equilon, no effect on or need for new or altered governmental services is anticipated due to this project.

No new process units are proposed in this project. The project is not expected to create any additional need for fire protection. The project will not result in a need for additional road maintenance nor will it affect maintenance of other public facilities. No additional employees are required that would create a demand for other governmental services will be hired to operate the project.

12. Utilities

Per a 4/12/01 letter from Equilon, this project will not require new or substantial modifications to existing utility sources.

Actual operating electrical load at the Refinery is expected to increase by approximately 1 MW as a result of the MTBE Removal Project, which is less than 1% of the Refinery's current power consumption. The majority of the Refinery's electrical power is generated by the recently constructed on-site 100 MW cogeneration facilities.

There will be a small increase in raw (non-potable) water usage although it is not expected to be significant. The expected increase is about 1% (100 GPM out of a total refinery usage of approximately 7500 GPM) and is well within the capability of the existing infrastructure to supply.

13. Aesthetics

Per a 4/12/01 letter from Equilon, the project will not affect a scenic vista or highway or create light or glare. No new equipment will be visible from residential areas. Any new equipment that might be visible from I-680 is expected to blend with the existing refinery to an extent where the changes would not be noticeable. No significant visual impact is anticipated.

14. Cultural Resources

Per a 4/12/01 letter from Equilon, there will be no impact on cultural resources due to this project. The project is located within the existing developed refinery, which has been substantially disturbed during refinery construction. The refinery is not located within a historic conservation area. There is not potential for impact on any cultural resources.

15. Recreation

Per a 4/12/01 letter from Equilon, the project will not affect existing recreational opportunities or increase demand for recreational facilities. The project operation will not require addition of any new permanent employees and, as such, will not affect existing recreational opportunities or increase demand for recreational facilities.