

CHAPTER 2

Master Responses

A number of individuals, organizations and agencies submitted comments on the DEIR. Many of these comments had common themes or topics. In response to these comments with common themes, seven master responses are presented here:

- Recirculation of the DEIR
- Greenhouse Gases and Climate Change
- Odor
- Flaring
- Baselines
- Construction-Related Effects
- Mitigation Measures

The following Master Responses provide responses to comments on these topics.

2.1 Master Response – Recirculation of the DEIR

A number of commenters asserted that the DEIR should be recirculated for another round of public review and comment. The County disagrees. *CEQA Guidelines Section 15088.5* describes conditions under which a draft EIR is required to be recirculated. Given that the EIR process contemplates the development of responses to the comments received on a draft EIR, the mere fact that comments are received and responded to in order to clarify, amplify, or correct statements in a draft EIR does not trigger the requirement to recirculate the document. Rather, recirculation is required only in certain prescribed circumstances. As provided in the *CEQA Guidelines*:

“A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term “information” can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement. “Significant new information” requiring recirculation includes, for example, a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (*Mountain Lion Coalition v. Fish and Game Com. (1989) 214 Cal.App.3d 1043*)” (CEQA Guidelines, Section 15088.5(a))

Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.” (CEQA Guidelines, Section 15088.5(b))

There is no “significant new information,” as defined in the CEQA Guidelines, that is set forth in the responses to the comments that were received. Consequently, there is no need or obligation to recirculate the DEIR for the Proposed Project.

2.2 Master Response – Greenhouse Gases

Several comments on the DEIR raised questions and concerns about the Proposed Project’s potential impacts as they relate to climate change and global warming, as well as potential mitigation for such impacts.

This response is broken down into the following sections:

- Background on Climate Change
- Assembly Bill 32 – California Global Warming Solutions Act of 2006
- Monitoring and Reporting of Greenhouse Gas Emissions
- Project-Related Greenhouse Gas Emissions
- Conclusions

2.2.1 Background on Climate Change

Some gases in the atmosphere affect the Earth’s heat balance by absorbing infrared radiation. These gases can prevent the escape of heat in much the same way as glass in a greenhouse. This is often referred to as the “greenhouse effect,” and it is responsible for maintaining a habitable climate. On Earth, the gases believed to be most responsible for the greenhouse effect are water vapor, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Enhancement of the greenhouse effect can occur when concentrations of these gases exceed the natural concentrations in the atmosphere. Of these gases, carbon dioxide (CO₂) and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. There is international scientific consensus that human-caused increases in greenhouse gases (GHGs) has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.

Some of the potential impacts in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006a). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future

air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas;
- More intense precipitation events.

Also, as noted in several comments on the DEIR, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

The California Energy Commission estimated that in 2004 California produced 492 million gross metric tons of carbon dioxide-equivalent greenhouse gas emissions (CEC, 2006) (“CEC 2006 Report”). The CEC 2006 Report found that transportation is the source of 41% of the State’s GHG emissions, followed by electricity generation at 22% and industrial sources at 21% (oil refining is not separately listed but rather is included within the larger industrial category).

In the Bay Area, the Bay Area Air Quality Management District (BAAQMD) recently published the Source Inventory of Greenhouse Gas Emissions (BAAQMD, 2006), which identifies and quantifies direct emissions generated from sources within the BAAQMD. This report shows that the majority of GHG emissions in the Bay Area come from Transportation (50.6%) followed by Industrial/Commercial (25.7%). Domestic sources (e.g., home water heaters, furnaces, etc.) account for 10.9% of the Bay Area’s GHG emissions, followed by power plants at 7.2%. Oil refining currently accounts for approximately 5.6% of the total Bay Area GHG emissions.

2.2.2 Assembly Bill 32 – California Global Warming Solutions Act of 2006

California has taken a leadership role in addressing the trend of increasing GHG emissions. California Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006, was enacted as legislation in 2006 and requires the California Air Resources Board (CARB) to establish a statewide GHG emission cap for 2020 based on 1990 emission levels. AB 32 requires CARB to adopt regulations by January 1, 2008 that will identify and require selected sectors or categories of emitters of GHGs to report and verify their statewide GHG emissions, and CARB is authorized to enforce compliance with the program that will be developed.

Under AB 32, CARB is required to adopt, by January 1, 2008, a statewide GHG emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990, which must be achieved by 2020. By January 1, 2011, CARB is required to adopt rules and regulations (which shall become

operative January 1, 2012), to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions. AB 32 permits the use of market-based compliance mechanisms to achieve those reductions. AB 32 also requires CARB to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism that it adopts. The Refinery, including the Proposed Project, will be subject to AB 32, and will be required to comply with all applicable final rules, regulations, emissions limitations, emissions reduction measures or market-based compliance mechanisms adopted under AB 32.

At the present time, there are no rules or regulations in place from CARB, the State Clearinghouse, or other resource agency applicable to the Proposed Project that define what is a “significant” source of GHG emissions, and there are no applicable facility-specific GHG emission limits or caps. The BAAQMD noted in their comments on the DEIR that the District has not yet established thresholds for greenhouse gas emissions (BAAQMD, 2007) and presently, no other air districts within California have established emission thresholds for determining the significance of GHGs from industrial projects.

Also, while the goal of AB 32 is to reduce in-state GHG emissions to 1990 levels by the year 2020, there is no clear metric that would determine if a single project advances toward or away from this goal. Because global warming is a global issue, a pound of GHGs emitted in California would presumably have the same effect, individually and cumulatively, as a pound of GHGs emitted anywhere else in the world. In determining whether a single project may or may not result in new GHG impacts, regulatory agencies may need to consider any change in world-wide GHG emissions that may occur as a result of the project. For example, California is currently importing a substantial portion of its clean fuels from out-of-state refineries (see DEIR Figure 3-4). The Proposed Project, while it would increase its direct GHG emissions to produce more California clean fuels, would also likely eliminate GHG emissions associated with the current and projected transportation of clean fuels into California from out-of-state refineries.

2.2.3 Monitoring and Reporting of Greenhouse Gas Emissions

Pursuant to SB 527, signed into law on October 13, 2001, the California Climate Action Registry (“Registry”) was formed. According to its website, the Registry is a non-profit voluntary registry for GHG emissions. The purpose of the Registry is to help companies and organizations with operations in the state to establish GHG emissions baselines against which any future GHG emission reduction requirements may be applied. AB 32 requires CARB to incorporate the standards and protocols developed by the Registry into the state’s new mandatory GHG emissions reporting program to the maximum extent feasible. AB 32 states that entities that join the Registry prior to December 31, 2006 and report their emissions according to the Registry’s rules and timeframe “shall not be required to significantly alter their reporting or verification program except as necessary to ensure that reporting is complete and verifiable.”

The Registry encourages voluntary actions to increase energy efficiency and decrease GHG emissions. Using any year from 1990 forward as a base year, participants can record their GHG emissions inventory. The State of California, in turn, will offer its best efforts to ensure that

participants receive appropriate consideration for early actions in the event of any future state, federal or international GHG regulatory scheme. Registry participants include businesses, non-profit organizations, municipalities, state agencies, and other entities.

The Registry has developed a General Protocol and additional industry-specific protocols which give guidance on how to inventory GHG emissions for participation in the Registry: what to measure, how to measure, the back-up data required, and certification requirements. When organizations become participants, they agree to register their GHG emissions for all operations in California, and are encouraged to report nationwide. Both gross emissions and efficiency metrics will be recorded. The Registry requires the inclusion of all direct GHG emissions, along with indirect GHG emissions from electricity use. However, the Registry clearly recognizes that the indirect GHG emissions represent double-counting with respect to direct emissions from electricity producers. Therefore, the Registry requires indirect and direct emissions to be reported separately. See www.climateregistry.org.

As a first step in the AB 32 compliance process, ConocoPhillips has joined the Registry and has stated its commitment to inventory and report emissions of greenhouse gases according to the Registry's General Reporting Protocol. ConocoPhillips has also notified the Registry of emission reductions it anticipates achieving through decommissioning of the carbon calcining operations at its Santa Maria Refinery effective early 2007. The decommissioning of this operation will result in a net decrease of approximately 250,000 metric tons per year of CO₂. ConocoPhillips has also notified CARB of its intent to seek a credit for these emissions reductions at such time as appropriate regulations are promulgated under AB 32.

2.2.4 Project-Related Greenhouse Gas Emissions

An analysis of the Proposed Project's GHG emissions has been developed and is included here. The emissions reported in the Table below are calculated according to the protocol established by the Registry, and will be reported to the Registry consistently with that protocol.¹ Additionally, the American Petroleum Institute (API) Compendium of Greenhouse Gas (GHG) Emissions Methodologies for the Oil and Gas Industry is used.

¹ The emission calculations for the Project follow the method described in the *California Climate Action Registry General Reporting Protocol (Chapter 8 – Direct Emissions from Stationary Sources)*. In addition, indirect CO₂ emissions from hydrogen production related to the Air Liquide Hydrogen Plant are provided although such reporting may not be a requirement of the protocol (per *Chapter 3 – Operational Boundaries: Required Direct and Indirect Emissions*).

TABLE
CFEP TOTAL PROJECT ANNUAL CO₂ EMISSIONS (metric tons per year)

	CO ₂ ^a
Refinery Sources	
New Unit 240/246 HGO Feed Heater	47,284
New SRU (Unit 235)	10,013
Unit 240 B-1 Boiler Reductions ^b	-64,529
Increased Heater Utilization	69,536
Dissolved Air Flotation (DAF) Unit ^c	146
Railcar Emissions ^d	108
Truck and Commuter Auto Trips ^e	32
Total Refinery Emissions^f	62,590
Hydrogen Plant Sources	
Hydrogen Plant Emission Increases	1,169,994
Total Direct Emissions From Project Sources	1,232,585
Indirect Electricity Emissions^g	19,049

^a The CO₂ emission factor is based on the average carbon content of the refinery fuel gas measured from fuel samples. This emission factor is comparable to the Higher Heating Value for other typical refinery fuels used provided in the API Compendium. Additionally, ConocoPhillips is a member of the Registry, so methodologies are consistent with the Registry General Reporting Protocol.

^b The Unit 240 B-1 Boiler would be shut down.

^c The DAF Unit emissions are due to the installation of a new thermal oxidizer that would control VOC emissions (a collateral benefit of the DAF emission control would be capture and destruction of methane emissions from the DAF process).

^d CO₂ emissions from railcar trips are based on emission factors provided in the Registry General Protocol. Each railcar trip includes one trip with empty railcars and a return trip with full railcars.

^e CO₂ emissions from truck and commuter auto trips were determined based on the Road Emission Factor Model (EMFAC 2002) developed by the California Air Resources Board and daily vehicle traffic in the refinery.

^f Flaring may be necessary when the Hydrogen Plant or the New Unit 240/246 is shut down. The GHG emissions from flaring would be based on refinery fuel gas or natural gas feed that would be rerouted to the flare, or clean hydrogen product that would not have GHGs. Both the Hydrogen Plant furnace and the HGO Feed Heater emissions of GHGs in the above table have been calculated based on maximum design capacity and operation for 8,760 hours per year. Therefore, GHGs from fuel that would be rerouted to the flare during startups and shutdowns has already been addressed in the GHG calculations that are based on the capacity of the Hydrogen Plant and HGO heater. Calculating the amount of GHGs from the flare would be double counting.

^g Indirect Electricity Emissions are calculated to represent the import of 9.8 MW for 24 hours a day and 365 days a year (peak use) from PG&E and emission factors provided by the Registry Protocol. The Registry stipulates that any organization that purchases electricity from an electric utility must report indirect emissions. These indirect emissions are reported separately to the Registry by the energy provider and should not be added with direct emissions. Adding them together would be considered double counting of emissions.

Carbon Dioxide

Emissions from the Air Liquide Hydrogen Plant - The vast majority of CO₂ emissions from the Proposed Project would be attributable to the Hydrogen Plant that would be constructed, owned, and operated by Air Liquide. The Hydrogen Plant, when operating at full capacity of 120 million standard cubic feet per day (SCFD), would generate approximately 1.17 million metric tons per year of CO₂.

Emissions from the ConocoPhillips Refinery - The remainder of the Proposed Project's CO₂ emissions would be 62,590 metric tons per year – including the 69,459 metric tons/year reduction of CO₂ emissions from the shutdown of the Unit 240 B-1 Boiler – that would be generated from ConocoPhillips' equipment.

Other GHG Emissions

Methane emissions after implementation of the Proposed Project would be expected to decrease from current emission levels. Currently, methane emissions from the Dissolved Air Flootation (DAF) units, part of the wastewater treatment process, are emitted directly to the atmosphere. Under the Proposed Project, those methane emissions would be captured and destroyed in the thermal incinerator. Other GHG emissions from the project are expected to be *de minimis*.²

2.2.5 Conclusions

Under CEQA, the purpose of an environmental impact report is to identify the significant environmental effects of a project (if any), to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided. (*Public Resources Code § 21002.1(a)*.) “Significant effect” is defined under CEQA as “a substantial or potentially substantial, adverse change in the environment.” (*Public Resources Code § 21068*.)

The State of California has not provided guidance as to significance thresholds for assessing the impact of greenhouse gas emissions on climate change and global warming concerns. Nothing in the CEQA guidelines has yet addressed this issue. The BAAQMD acknowledged the lack of clear guidance or established methodology to evaluate the impacts of GHGs when it commented on the DEIR for the Proposed Project, noting that the discussion in the DEIR “may not conclude with a significance determination nor require mitigation measures since the District has not yet established thresholds for greenhouse gas emissions.” (BAAQMD, 2007).

It is not possible to draw conclusions about the significance of Proposed Project impacts on global warming in the absence of established thresholds, and therefore any conclusion about these impacts or their mitigation is premature. In such circumstances, the CEQA Guidelines instruct that the lead agency “should note its conclusion and terminate discussion of the impact.” (*Guidelines, § 15145*). Consequently, aside from noting that the Proposed Project must comply with the rules and regulations ultimately adopted to address GHG emissions, the FEIR does not state conclusions about the extent of any impacts or potential mitigation.

References

- Bay Area Air Quality Management District (BAAQMD), 2006. *Source Inventory of Bay Area Greenhouse Gas Emissions*. November 2006. Table E-2.
- BAAQMD, 2007. Comments on the ConocoPhillips Clean Fuels Expansion Project Draft Environmental Impact Report. January 4, 2007. p.1
- California Air Resources Board (CARB), 2006a. Climate Change website (<http://www.arb.ca.gov/cc/120106workshop/intropres12106.pdf>) accessed December 1, 2006.

² Consistent with the Registry’s General Reporting Protocol, Chapter 5 – *De Minimis Emissions and Significance*, the aggregate non-CO₂ GHG emissions from the Proposed Project would be considered to be *de minimis*. The estimated Proposed Project emissions of N₂O would be 2.1 metric tons.

CARB, 2006b. Personal communication with Chuck Shulock by K. Faubion, Attorney for the City of Pittsburg, December 4, 2006).

California Energy Commission (CEC), 2006. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*. December 2006.

Intergovernmental Panel on Climate Change (IPCC), 2001. *Climate Change 2001: Working Group I: The Scientific Basis*, Section F.5, Table 4; <http://www.grida.no/climate/ipcc/wg1/032.htm#f5>, accessed February 26, 2007.

2.3 Master Response – Odor

2.3.1 Introduction

Several commenters expressed general concerns about odors and assert that odors are likely to increase as a result of the Proposed Project because it would involve refining of heavy, sulfur-containing products, would add a new sulfur recovery unit, and would increase processing of sour water. The County believes that routine operations from the Proposed Project would not cause an increase in odors given the odor-reducing aspects of the Proposed Project, as well as the Refinery's implementation of regulatory requirements designed to reduce odors.

2.3.2 Added Information

Some specific comments were received that contended that the DEIR did not adequately address existing odor baseline conditions and the odor impacts associated with the Proposed Project. In response to these comments, after the release of the DEIR, further odor complaint data related to ConocoPhillips' Rodeo Refinery was obtained from the BAAQMD Enforcement Division. To incorporate this added information into the DEIR, the last sentence of the second paragraph of DEIR Section 4.2.2.5, *Odors*, is revised, as follows:

During the years 2000 through ~~2004~~2006, totals of ~~78, 35, 48, 33, and 27~~ 89, 37, 29, 17, 35, 63, and 61 odor complaints, respectively, were received by BAAQMD related to ConocoPhillips Refinery.

2.3.3 Refinery Odor Sources and Investigations

ConocoPhillips conducts investigations to determine the underlying cause of odor complaints related to the Refinery. Past investigations have identified unexpected occasional mechanical equipment disruption as the principal cause of odors that result in citizen complaints. Process upset conditions that required use of a Refinery flare, or operations associated with a storage tank containing an odorous substance, were also identified as odor sources.

The Refinery processes hydrocarbons in enclosed pipes and vessels. To meet regulatory requirements and to adhere to strict safety standards, hydrocarbon exposure to the atmosphere is minimized. U.S Environmental Protection Agency (USEPA) and Bay Area Air Quality Management District (BAAQMD) regulations impose strict standards that require Best Available

Control Technology (BACT) to be applied on all new equipment to control emissions and prevent odors. The Refinery is required to control fugitive emissions with an ongoing Leak Detection and Repair (LDAR) Program that requires periodic monitoring of Refinery components and repairs to leaking components. BAAQMD's LDAR requirements are among the strictest in the country. The Refinery is in compliance with these requirements.

The Refinery currently has three sour water strippers and three sulfur plants that are closely monitored for leaks due to the hazardous and odorous nature of the material handled. These units have not been a source of offsite odors and are in compliance with applicable BAAQMD regulations. The new sour water stripper and sulfur plant would be subject to the same monitoring and BAAQMD regulations as the three existing units.

2.3.4 Proposed Project Odor Control Measures

Several commenters requested an odor analysis of sulfur compounds and other odorous compounds associated with the Proposed Project. An odor analysis was part of the *ConocoPhillips Rodeo Clean Fuels Expansion Project Air Quality Supplement, Revised May 2006* and is publicly available. In addition, the Proposed Project includes other improvements to reduce potential odors. These Project-related improvements include:

- Adding a fourth odor abatement compressor, as stated on Page 4.2-39 of the Draft EIR. This new compressor would operate with the three odor abatement compressors already in service at the Refinery. Greater overall compressor capacity for this system would reduce the potential for odors from the Refinery's tanks. The DEIR incorrectly states that the new odor abatement compressor is "unrelated to the Proposed Project"; in fact, the compressor would be installed as part of the Proposed Project. Therefore, the last paragraph under DEIR, Impact 4.2-3 (page 4.2-39), is revised as follows:

~~Unrelated to the Proposed Project, ConocoPhillips is planning to~~ In addition, the Proposed Project includes the installation of a new odor abatement compressor to control odors from certain storage tanks that currently do not have odor control. This compressor ~~will~~ would serve as a back-up compressor for the flare gas recovery system. This ~~will~~ would eliminate some flaring events that have occurred in the past.

- As part of the Proposed Project, ConocoPhillips would install vapor control on gas oil storage tanks that are currently not on vapor recovery, including two tanks associated with odor complaints from the Tormey community in 2005.
- The new odor abatement compressor would have the capacity to both supplement and serve as a back-up compressor for the flare gas recovery system. This would reduce flaring from the Refinery, which would thus reduce any potential odors from flaring.
- A new 200 long ton/day sulfur plant would be built as part of the Proposed Project. The new plant would provide greater Refinery sulfur recovery capacity and redundancy; this reduces the likelihood of Refinery upsets and process unit shutdowns that could otherwise potentially cause odors.

- The Proposed Project would result in degassing of the molten sulfur that is now produced at the existing sulfur plants as well as the molten sulfur that would be produced at the proposed new sulfur plant. This degassing process would reduce the amount of H₂S in molten sulfur to less than 10 parts per million (ppm) and would reduce potential odors from the truck loading and transport of sulfur at and from the Refinery.
- The Dissolved Air Flotation vents and wastewater outlet channel are currently open to the atmosphere and are a potential source of odors. As stated on Page 4.2-34 of the Draft EIR, the Proposed Project would reduce emissions from the wastewater treatment plant at the site by venting emissions to a thermal oxidizer, which would destroy odorous compounds. The Dissolved Air Flotation vents would be controlled and the outlet channel and downstream sumps would be sealed with a gasketed cover.
- The Proposed Project would reduce the loading and handling of heavy gas oil with high sulfur content onto marine vessels. This would produce a corresponding reduction in potential odor emissions.

2.3.5 Other Refinery Odor Control Measures

Other Refinery actions unrelated to the Proposed Project that would reduce odors include:

- Implementation of the Refinery's Flare Minimization Plan, as required by BAAQMD Rule 12-12, which would reduce flaring and the potential for any related odors.
- New cooling tower monitoring requirements (new Title V permit condition). Earlier leak detection and monitoring would allow the Refinery to better identify and address potential odor sources before they have any significant impact on sensitive receptors.
- Implementation of new sewer vent monitoring and control requirements imposed by BAAQMD Rule 8-8, which is designed to reduce fugitive emissions that could otherwise be a potential source of odors.

2.4 Master Response – Flaring

2.4.1 Introduction

The Refinery does not employ routine, continuous flaring, and this would remain the case after the Proposed Project was constructed and placed in operation. The two existing flares at the Refinery, which are part of the relief and blowdown system, are used during process upsets, startup/shutdown, and maintenance activities to safely relieve pressure in process units without venting gas streams directly to the atmosphere. Each flare has a liquid seal and the relief system has a flare gas recovery compressor so that gases sent to the relief header are ordinarily recovered, processed to remove sulfur, and used as fuel gas in the Refinery. Under normal operations, the liquid seal prevents gas from going to the flare. The relief system vents to the Refinery flare only when the flare gas recovery compressor capacity is exceeded. This can happen when an equipment failure or other process upset produces a large volume of gas in a short period of time. During these episodes, the flare acts as a safety and emergency pollution

control device to burn the Reactive Organic Gases (ROG) and to convert sulfurous compounds to prevent the release of these upset gases into the atmosphere.

2.4.2 Regulatory Controls

As acknowledged in several comments, the Refinery must track and report all flare emissions to the Bay Area Air Quality Management District (BAAQMD). The Refinery is regulated by BAAQMD Regulation 12, Rule 12, “Flares at Petroleum Refineries.” This rule requires the Refinery to submit, maintain, and annually update a Flare Minimization Plan (FMP). The elements of the FMP include:

- Reductions made in flaring over the past five years.
- Future reductions to be made based on projects, procedures, and/or systems.
- Review of the past five years of planned maintenance related flaring and evaluating a means to reduce/eliminate similar types of flaring.
- Prevention measures utilized to minimize flaring during major maintenance.
- Review of recurring equipment failures that resulted in flaring.
- Identifying those situations in which flaring is expected to occur (i.e., gas quality/quantity driven).
- Identifying standard practices utilized at the Refinery that reduce flaring (e.g., preventive maintenance activities, conducting Process Hazards Analysis, communicating performance metrics to plant personnel).

By developing and maintaining the FMP, the Refinery is held to a strict standard to minimize and prevent flaring. The key elements in the FMP that will result in flaring reductions at the Refinery are the identification of improvement projects (e.g., odor abatement/flare compressor synergy), tracking and routinely communicating causes of flaring to all Refinery employees, conducting root cause analysis for large flaring events and identifying actions to prevent recurrence, instituting a procedure to consistently examine potential flaring prior to and following a major turnaround, and conducting a review of means to further reduce flaring based on past trends.

2.4.3 Flaring Events and Emissions Estimates

As acknowledged in a number of the comments on the DEIR, the Refinery must track and report all flare emissions to the Bay Area Air Quality Management District (BAAQMD). Root cause analyses are submitted to the BAAQMD for significant flare events. As demonstrated by these analyses, the flare events fall into several major categories that include:

- Unit startups and shutdowns;
- Equipment clearing with nitrogen following a unit shutdown;
- Flare gas recovery compressor maintenance; and
- Equipment breakdowns.

The flaring events that are related to scheduled startup/shutdowns, equipment clearing, and flare gas recovery compressor maintenance are predictable events; on the other hand, the flaring events that are related to equipment breakdowns are not.

Flaring emissions in the DEIR were estimated for those predictable events that can result in flaring. For such cases, a reasonable calculation can be made of the flaring emissions. However, these emission estimates reflect only those flaring emissions related to the Proposed Project. The existing refinery flaring emissions are part of the baseline – those are referred to in the air quality analysis in the DEIR as existing emissions.

For the Proposed Project, these predictable events that result in flaring include the scheduled shutdown of the new Unit 246 once every three years and the planned activities at the Hydrogen Plant, including maintenance and planned outages. Therefore, these flaring emissions attributable to the Proposed Project were calculated and presented in the DEIR. Flaring from the Sulfur Recovery Unit (SRU) was not included in the calculations because the ConocoPhillips experience with the existing Refinery SRUs shows that startup and shutdown of the new SRU can occur without resulting in flaring.

2.4.4 Flaring Emissions vs. Refinery Production

The amount of gas flared and the resulting emissions are not directly proportional to the production rate of the Refinery, but instead, are related to a number of factors including the origin, chemical composition of the gas (i.e., whether the gas quality is sufficient for recovery and reuse), and whether the quantity of gas can be recovered by the flare gas recovery compressor. There is no factual basis for one commenter's conclusion that "increasing production by one third of current levels will cause flaring increases of at least 30 percent." Nothing in the record indicates that there is a correlation between production rate and flaring events and the commenter did not submit evidence to substantiate such an argument.

2.4.5 Equipment and Reliability

The proposed installation of modern equipment and associated controls as part of the Proposed Project would increase performance reliability of equipment at the Refinery. Inherently safer design features would be incorporated into the design of new equipment associated with the Proposed Project. Some examples of these design features include using alloy steel to reduce corrosion and the likelihood of equipment failure; designing the equipment to withstand higher pressures and thereby decreasing the need to release pressure to the flare; eliminating processing equipment where possible; installing state-of-the-art shutdown systems to minimize emergency situations; and upgrading the Sulfur Plant controls to a modern distributed control system.

The Proposed Project would incorporate several features designed to minimize flaring both from the Proposed Project and from the existing Refinery. Emergency Isolation Valves would be installed at the new Hydrocracker, the new Sulfur Plant, the new Hydrogen Plant, the new Sour Water Stripper, and the existing fractionation section of the Hydrocracker. These Emergency Isolation Valves would automatically shut down the process, reduce pressure in the process, and

ultimately reduce the potential for flaring when there is a power failure or other significant upset that, in the past, may have resulted in a release to the flare.

In addition, the Proposed Project would include installation of steam-driven pumps and a compressor designed to operate notwithstanding an electrical power failure. Continuing operation of these key pumps and the compressor would reduce the probability of a flaring event and reduce the duration of flaring in the event of a release to the flare.

The Proposed Project would include installation of a new compressor to increase the capacity of the odor abatement system. This compressor would also be connected to the flare gas header for recovering flare gases during normal Refinery operation. This compressor would reduce overall flaring at the Refinery by eliminating minor flaring associated with brief peak-loading of the flare gas recovery compressor, and more significantly, by serving as a backup compressor for the existing flare gas recovery compressor during periods of maintenance. This new compressor would increase the flare gas recovery capacity of the Refinery and reduce flaring events.

The Proposed Project would increase fuel gas consumption and would therefore reduce the likelihood of flaring resulting from fuel gas imbalance.

2.4.6 References to Other Responses

See responses CBE-36, CBE-48 thru CBE-50 for further information regarding: the basis for determining flaring emissions from Hydrocracking Unit 246; flare destruction efficiency and emission quantification; Hydrogen Plant emission calculations; and the Sulfur Plant design.

The consumption of hydrocarbon gases in the flares would contribute to greenhouse gas emissions. As stated in Section 2.4.3 above, flaring may be necessary when the Hydrogen Plant or new Unit 246 is shut down. The greenhouse gas emissions from flaring would be based on refinery gases or natural gas feed that would be re-routed to the flare. Both the Hydrogen Plant furnace and Unit 246 HGO feed heater greenhouse gas emissions have been calculated based on maximum design capacity and operation of 8,760 hours per year. Those calculations include all greenhouse gas emissions from those units.

See Section 2.3, *Master Response – Greenhouse Gases*, for more information.

2.5 Master Response – Baselines

2.5.1 CEQA Guidance on Baselines

The CEQA Guidelines provide that the environmental conditions existing at the time the Notice of Preparation (NOP) is published, or if a NOP is not published, those conditions existing at the time the environmental analysis is commenced, will “normally” constitute the baseline to be used by a lead agency in considering whether an impact is significant (*CEQA Guidelines*, §§ 15125(a); 15126.2(a)). Inclusion of the word “normally” provides lead agencies with the discretion to adopt a different baseline in appropriate situations. Courts have recognized a lead agency’s authority to

adopt such an alternative approach, with the decision needing to be supported by substantial evidence in the record. *Fat v. County of Sacramento*, 97 Cal.App.4th 1270, 1277-78 (2002). *Save Our Peninsula Committee v. Monterey County Board of Supervisors*, 87 Cal.App.4th 99 (2001). Some courts have held that permitted levels of operations, rather than actual emissions and/or actual discharges, can be used as the environmental baseline for a proposed project. *Fairview Neighbors v. County of Ventura*, 70 Cal.App.4th 238 (1999); *Committee for a Progressive Gilroy v. State Water Resources Control Bd.*, 192 Cal. App. 3rd 847 (1987).

2.5.2 The Draft EIR Baselines

However, neither the instantaneous nor the permitted levels of operations approach was used in the Draft EIR to represent factors, such as air emissions, related to existing (setting) Refinery operations. Instead, the adopted baselines were chosen to best represent long-term averages of the actual emissions and/or the actual environmental setting at the Refinery prior to the release of the DEIR. These long-term averages vary, but typically range from 1 year to 3 years for settings related to process operations, for the reasons described below. By contrast, the setting conditions related to simple physical factors such as land use and visual effects were set at the time of the Notice of Preparation.

One commenter challenged the baseline period used, believing the appropriate baseline period should be “actual facility emissions at the time of the NOP”. On the other hand, another comment challenges the exclusion of emissions from yet-to-be-built equipment from the baseline because that equipment was under construction, but not in operation, as of the DEIR publication date.

As referenced above, the lead agency has the authority to adopt a baseline period that it believes best reflects pre-project emissions. For a refinery, there can be variations from day to day or over longer periods as operations change due to a variety of factors such as changes in raw materials, changes in products, source of crude, and market demand for products. A single day is not representative of the range of current operations, while averaging over some time period is more representative. The Ultra Low Sulfur Diesel (ULSD) project completed construction and started operations in April 2005. Given the importance of the ULSD operations to the Refinery, the post-ULSD operational period is the most representative of actual baseline emissions from which to evaluate the impacts of the Proposed Project. In addition, the emissions resulting from the ULSD project were also documented in a previous EIR. Had a shorter baseline been used (i.e., June – August 2005 - the three months immediately prior to the September NOP date), the baseline emissions for each of the constituents of concern would have been the same or greater than the emissions data used to determine the baseline for the DEIR and BAAQMD applications. Put another way, the method required by the BAAQMD, and as used in the DEIR, provides a more conservative baseline than using “actual facility emissions at the time of the NOP” thereby increasing calculated Project-emission estimates and requiring additional mitigation.

2.5.3 BAAQMD Permit to Operate Data for Refinery Baseline

One commenter inquired about a June 2006 Bay Area Air Quality Management District (BAAQMD) invoice and associated emissions information. While the BAAQMD invoice for

Permit to Operate fees is dated June 28, 2006, it covers the full 1-year period from January 1, 2005 through December 31 2005. By nature, refinery operations and associated air emissions fluctuate day-by-day and month-by-month. While cases such as *Fairview Neighbors v. County of Ventura* and *Committee for a Progressive Gilroy v. State Water Resources Control Bd.* might have justified using a higher baseline such as the permit maximum or the peak day of operations, the County has exercised its discretion not to take this approach. In light of the Refinery's fluctuating operations and emissions, the County has determined that the most appropriate baseline is based on averaging. This approach is recognized throughout the Rules and Regulations that are promulgated by the BAAQMD. For purposes of the air quality impacts analysis contained in the DEIR, baseline periods were used that most appropriately reflect the existing conditions and operations at the Refinery, using methodologies consistent with those required by the BAAQMD (DEIR, p. 4.2-22).

2.6 Master Response – Construction-Related Effects

2.6.1 Introduction

Several comments were received asserting that Proposed Project construction impacts were not adequately assessed in the DEIR, that mitigation measures proposed to minimize construction impacts are insufficient, and that additional measures should be adopted to mitigate construction-related impacts.

The general assertions made by commenters include the following:

- (1) construction emissions were not quantified;
- (2) substantial evidence was not provided to show that construction emissions are not significant;
- (3) if construction emissions were to be quantified, the emissions from diesel exhaust, construction equipment, and fugitive dust would be significant and would remain significant even with the implementation of the DEIR mitigation measures;
- (4) additional mitigation measures for fugitive dust and construction equipment emissions are feasible and should be required; and
- (5) the Construction Health Risk Assessment is inadequate.

These general issues are addressed below.

2.6.2 Significance Criteria

The DEIR does not quantify construction emissions. Such quantification is not required under the CEQA Guidelines or the recommendations in the Bay Area Air Quality Management District (BAAQMD) *CEQA Guidelines*. Construction emissions quantifications are not typically included in EIRs prepared by Bay Area lead agencies, following *BAAQMD CEQA Guidelines* recommendations.

Certain commenters contend that a quantitative analysis of construction emissions is necessary to ensure that the proposed mitigation measures would, in fact, reduce construction impacts to a less-than-significant level. These comments misconstrue both the threshold of significance that is used in the DEIR and the conclusion in the DEIR. The DEIR's significance threshold states that construction emissions would be considered significant if the Proposed Project did not implement the mitigation measures recommended by the BAAQMD for a particular size of construction site. However, because all recommended mitigation measures applicable to the Proposed Project would be implemented, the DEIR concludes that the impact would be less than significant.

The Thresholds of Significance section of the *BAAQMD CEQA Guidelines* (page 13) states as follows:

The District's approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions.

The *BAAQMD CEQA Guidelines* go on to state:

The determination of significance with respect to construction emissions should be based on a consideration of the control measures to be implemented. From the District's perspective, quantification of construction emissions is not necessary." (page 14).

This approach with respect to methodology and threshold of significance is implemented in the analysis of this EIR. Because the BAAQMD is the responsible agency in the project area with the most expertise regarding air quality issues and analyses, as well as the agency responsible for maintaining air quality within the Bay Area, the County has determined that it is appropriate to utilize the District's recommended methodology of assessing and mitigating construction impacts of proposed projects. As a result, the County has applied that methodology in this EIR and therefore has determined that it is not necessary to quantify construction emissions, since the EIR presents the BAAQMD mitigations for these emissions.

One commenter noted that the *BAAQMD CEQA Guidelines* include a brief section (Section 3.3) that references methods that can be used to estimate construction-related emissions. The commenter states that "The BAAQMD would not present emissions estimating methods and mitigation strategies (page 28 of the *BAAQMD CEQA Guidelines*) if it believed that these emissions were de facto exempt due to their inclusion in regional air quality plans." This statement is inaccurate. The *BAAQMD CEQA Guidelines* on page 13 clearly state that this information is provided in case a lead agency elects to calculate construction-related emissions. The County is the lead agency for this Project and has elected to use the BAAQMD methodology, with an emphasis on the implementation of effective and comprehensive control measures rather than the quantification of construction emissions.

A comment was received that stated that quantified emissions from construction would exceed the BAAQMD significance thresholds for project operations and the South Coast Air Quality Management District (SCAQMD) thresholds for construction. The commenter suggests that these thresholds are appropriate to use for construction emissions for projects subject to BAAQMD

jurisdiction. The *BAAQMD CEQA Guidelines* state on page 16 that the basis for the operational significance thresholds is certain stationary source definitions and rules. This basis is not applicable to emissions from construction activities and mobile sources. The BAAQMD significance criteria for construction emissions do not require quantification. The SCAQMD controls an air basin that has different State and federal attainment status for many pollutants compared to those of the Bay Area air basin controlled by BAAQMD. Accordingly, the SCAQMD thresholds for construction are not applicable to and may not be appropriate for projects in the BAAQMD. Similarly, recommended mitigation measures in guidelines issued by other air pollution control districts could be considered for their merit on an individual basis, but may not be appropriate for projects subject to BAAQMD jurisdiction.

2.6.3 Construction-Related Emissions

Construction Fugitive Dust

Certain commenters stated that the 12 mitigation measures for fugitive dust contained on pages 4.2-24 and 4.2-25 of the DEIR are based on the list of feasible mitigation measures for construction emissions found on page 15 of the *BAAQMD CEQA Guidelines*. They noted that “the DEIR fails to incorporate all measures that are expressly recommended by the BAAQMD.”

The *BAAQMD CEQA Guidelines* include a table listing control measures to reduce construction emissions of PM₁₀, which is considered by the BAAQMD to be the pollutant of greatest concern during construction activity. The *BAAQMD CEQA Guidelines* state that “if all the control measures indicated in Table 2 (as appropriate, depending on the size of the project area) will be implemented, then construction impacts would be considered a less than significant impact.”

The BAAQMD recommends that three different categories of control measures be implemented depending on whether the construction site is less than 4 acres (“Basic Measures”), greater than 4 acres (“Enhanced Measures”), or large in area or located near sensitive receptors (“Optional Control Measures”). (*BAAQMD CEQA Guidelines*, page 15). ConocoPhillips proposed to implement as part of the Project, and the DEIR subsequently recommended, all of the Basic Measures and virtually all of the Enhanced Measures or Optional Control Measures. DEIR Mitigation Measure 4.2-1a includes twelve of the mitigation measures found in the BAAQMD CEQA Guidelines.

In response to specific comments from BAAQMD, the following three mitigation measures are added to the FEIR:

“In disturbed areas that are not subsequently oiled, paved or constructed upon, vegetation will be replanted as quickly as possible.”

“Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.”

“Dry mechanical pavement sweeping shall not be allowed.”

Construction Equipment Tailpipe Emissions

With respect to emissions from construction equipment, the BAAQMD has included estimates of construction vehicle emissions from projected development in its regional air quality plans. It accordingly does not expect temporary construction emissions from any individual project to impede attainment or maintenance of applicable air quality standards. (*BAAQMD CEQA Guidelines*). Therefore, the BAAQMD does not require quantification of construction-related emissions from these sources. Nevertheless, the *BAAQMD CEQA Guidelines* recommend that lead agencies consider several mitigation measures in order to reduce emissions from construction equipment exhaust (*BAAQMD CEQA Guidelines*, page 53). DEIR Mitigation Measure 4.2-1b includes three of these four measures (e.g., use of alternative fuels, maintaining well-tuned equipment, and minimize idling time), as well as a measure not included in the District's recommended list (encouraging commuting workers to carpool or use other means to reduce trip generation). The fourth measure, limiting hours of construction, is part of a noise-related measure for Project consistency with the General Plan. The following text is hereby added as the second un-bolded sentence to the discussion under impact 4.11-3:

“Consistent with Policy 11-8 of the County General Plan, construction activities are proposed to occur weekdays during an 8- to 10 hour shift (starting at 7:00 a.m., and ending as early as 3:30 p.m. and as late as 5:30 p.m.).”

There is nothing in the record to indicate that the EIR should deviate from the BAAQMD suggested approach to analyzing and mitigating construction related emissions. However, at the request of the BAAQMD, the fifth bullet in the table is modified as follows:

“All diesel trucks used by the construction contractor(s) at the site, or for on-road hauling of construction material, shall be post-1996 models.”

The following mitigation measures are added to the DEIR:

“Diesel portable generators less than 50 horsepower shall not be allowed at the construction site, except those used by welders.³”

“Mitigation measures 4.2-1a and 4.2-1b shall be included in the construction bid documents and contracts.”

All of the above mitigation measures will reduce construction-related emissions associated with the Proposed Project to less-than-significant levels in accordance with the BAAQMD CEQA Guidelines.

Once a lead agency has adopted measures to reduce a project's environmental impacts to less-than-significant levels, it need not adopt additional forms of mitigation. *San Franciscans for Reasonable Growth v. City and County of San Francisco*, 209 Cal.App.3d 1502, 1519-20 (1989); *A Local & Regional Monitor v. City of Los Angeles*, 12 Cal.App.4th 1773, 1809-10 (1993).

³ Welding trucks have self-contained units with generators less than 50 horsepower.

Additional Construction Mitigation Measures

Some of the commenters suggested that additional mitigation measures be added to the EIR to further reduce construction-related dust and exhaust emissions. The following mitigation measures, which fulfill the intent and purpose of those measures suggested by the commenters, are added to the EIR:

- During earthmoving operations, apply water or a non-toxic soil stabilizer to backfill material in order to maintain a moisture level that is sufficient to minimize dust.
- Install fencing as needed to prevent unnecessary access to construction areas.
- Locate construction staging areas adjacent to the various construction sites.
- For stockpiles, maintain adequate moisture content to minimize dust, remove material from downwind side, avoid steep sides or faces, and stabilize material following disturbance.
- Empty loader buckets slowly and drop material from the minimum height necessary.
- Install track out control devices at exit points from the Refinery utilized by construction equipment.
- Pave all roadways, driveways, sidewalks, etc. as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Formulate a dust control plan for earth moving operations and designate a staff person to monitor the plan's implementation.
- Post a publicly readable sign with the telephone number of a person to contact regarding dust complaints. The sign shall be placed in a conspicuous location on Refinery Property along San Pablo Avenue.
- Limit construction contractor parking to those areas indicated on Figure 3-10 on DEIR page 3-37. These areas shall be configured to minimize interference with local traffic, with ingress and egress limited to specified points.
- Consolidate truck deliveries when possible.
- Establish a staging zone on Refinery property for trucks waiting to load and unload. This zone shall be established in an area where it will not impact Refinery neighbors.
- Locate construction equipment in the vicinity of sensitive receptors only if it is absolutely necessary in order to complete specific construction-related activities and move the equipment away from the receptors immediately after the activities have been completed.

With respect to additional mitigation measures recommended by Adams Broadwell Joseph & Cardozo (see Section 3.8, *Adams Broadwell Joseph & Cardozo*, comment ABJC-86), two have not been completely or partially adopted. Those that have not been adopted include the cut-and-fill pre-water measure, which is already covered by other measures, and the “bedliners” for bottom dumping haul vehicles, which are not generally available.

Some comments assert that the DEIR should address the feasibility of alternative fueled equipment. ConocoPhillips evaluated the suggested alternatives and has determined that Ultra-Low Sulfur Diesel would be used in the diesel construction equipment. It is readily available and

is feasible for use in the types of construction equipment that would be used on the Project. See also Section 2.7, Master Response - Mitigation Measures.

One comment requests the implementation of additional mitigation measures for fugitive ROGs including the use of low-ROG asphalt, low-ROG paints, and other low-ROG construction materials. This request is consistent with the low-VOC material regulations in the BAAQMD rules. These rules address requirements for manufacturers of the materials, as well as users of the products. To the extent that these materials are used on the Proposed Project, these mitigation measures would be implemented.

2.6.4 Construction Health Risk

One commenter states that the construction Health Risk Assessment (HRA) is inadequate and substantially underestimates the health risks associated with the Proposed Project. The HRA for construction of the Proposed Project was based on TAC emissions from 1,012 truck trips during the peak 12-month construction period with a maximum number of seven truck trips per day.

The commenter correctly identifies an inconsistency in the DEIR between the number of delivery trucks considered in the HRA and the number stated in the project description. The estimated daily delivery trips are higher in the project description than previously modeled in the HRA. The number of truck trips has been revised based on the current level of detail available in the construction plans and the TAC emissions have been recalculated and remodeled in the HRA. EIR Table 4.7-2 is therefore completely replaced with Table 4.7-2 REVISED as shown below to include the new HRA modeling results.

**TABLE 4.7-2 REVISED
SUMMARY OF POTENTIAL HEALTH RISK FROM PROJECT CONSTRUCTION,
INCLUDING CFEP AND HYDROGEN PLANT CONSTRUCTION TRUCK EMISSIONS¹**

Type of Estimated Health Impact	Cancer Risk (per million)	Chronic Hazard Index	Acute Hazard Index
Maximum Exposed Individual Worker (MEIW) 565982E, 4211241N	0.504	1.60E-03	1.27E-02
Maximum Exposed Individual Residential (MEIR) 566185E, 4211393N	2.06	1.30E-03	5.58E-03
Carcinogenic Risk at the Point of Maximum Downwind Impact (PMI) 565982E, 4211241N	2.56	–	–
Maximum Chronic Noncancer Hazard Index at PMI 565982E, 4211241N	–	1.60E-03	–
Maximum Acute Noncancer Hazard Index at PMI on property boundary	–	–	1.27E-02

¹ The risk assessment includes results for 40 daily truck roundtrips, 22 days/year, and 12 months/year modeled as a volume source and accounting for travel in the vicinity of the project.

SOURCE: ERM, Revised Modeling of Construction Emissions, February 2007.

The commenter states that on-site construction equipment, rather than off-site diesel trucks, is the major source of diesel exhaust emissions during construction of the Proposed Project. The DEIR includes the impacts from trucks in the HRA because these emissions would occur nearest to off-site receptors when the trucks would deliver equipment to and from the construction site. The impacts from trucks are greatest because they would travel much closer to off-site receptors; whereas other construction equipment would be on-site and farther away from sensitive receptors. Therefore, the revised HRA correctly assesses the construction health risks and does not substantially underestimate the emissions by not including other sources.

A comment asserts that the DEIR considered only a subset of emissions when analyzing the incremental health risks from the Project. All Toxic Air Contaminant (TAC) emissions related to the Proposed Project were considered in the analysis. For construction activities, diesel particulate matter (DPM), a mixture of over 40 different toxic substances, was considered when analyzing impacts; for construction, the risks from other toxic materials are insubstantial compared to the risks from DPM. For operations, all of the TAC emissions estimated for the Project components were included. The TAC emissions, which are identified in Table 4.7-3 of the DEIR, include about 60 compounds.

The comment mentions that a recent analysis of construction emissions in the State concluded that ‘construction is taking a heavy toll on the health and economic well being of Californians’. The comment refers to health statistics related to construction emissions, but no reference is given on the cited health statistics. These statistics may be more relevant to total emissions and resulting concentrations of DPM for the public that are due to regional activity rather than specifically to single-event construction activities.

Another comment asserted that the incremental health risks from the Proposed Project would be significant if the emissions from concurrent industrial projects and developments in the region were to be included in the HRA. The County identified possible concurrent projects and determined that there are no known concurrent projects that would significantly affect the same sensitive receptors as the Proposed Project. Furthermore, the BAAQMD guidance for the conduct of health risk assessments directs that the study focus on determining the health risk of the project, without regard to the cumulative effect of other regional projects. Therefore, a cumulative HRA was not deemed necessary and was not conducted.

2.6.5 References to Other Responses

Because the BAAQMD methodology for assessing and mitigating the air quality impacts of construction depends upon effective mitigation measures to control emission sources, there is a strong connection between this Master Response and Section 2.7, Master Response – Mitigation Measures. That Master Response discusses mitigation measures, their feasibility, effectiveness, and the ability to require their use under the terms of governmental permits and approvals for any given project.

Furthermore, there are also a number of specific responses, such as ABJC-56 thru ABJC-65 in Section 3.8, *Adams Broadwell Joseph & Cardozo*, among others, that are related to construction

emissions and mitigations. In these, throughout the DEIR and in the supplemental information presented herein, there is substantial evidence that justifies the conclusion that each of the proposed mitigation measures is feasible and capable of reducing the impacts to less-than-significant levels through the direct use of the BAAQMD methodology.

2.7 Master Response – Mitigation Measures

2.7.1 EIR Requirement to Identify Impacts and Mitigations

An EIR must identify all significant environmental effects associated with a project and “describe feasible measures which could minimize significant adverse impacts”. (*Cal. Pub. Res. Code § 21100; CEQA Guidelines, § 15126.2 and 15126.4(a)(1)*). CEQA requires that a public agency “mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.” (*Cal. Pub. Res. Code § 21002.1(b)*).

2.7.2 Lead Agency Discretion

Lead agencies have significant discretion to craft mitigation measures as part of their CEQA review. (*CEQA Guidelines, § 15041*). An EIR must identify feasible measures which could minimize significant adverse impacts. (*CEQA Guidelines, § 15126.4(a)(1)*). Mitigation measures are also required to be “fully enforceable through permit conditions, agreements, or other legally-binding instruments.” (*CEQA Guidelines, § 15126.4(a)(2)*).

2.7.3 Mitigation Measure Feasibility

A “feasible” mitigation measure must be “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” (*CEQA Guidelines, § 15364*).

2.7.4 Lead Agency Obligations

A lead agency’s obligation under CEQA is to avoid the approval of a proposed project “if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment.” (*CEQA Guidelines, § 15021(a)(2)*). Courts have held that so long as a lead agency has adopted measures to reduce a project’s environmental impacts to less than significant levels, it need not adopt additional forms of mitigation that may be proposed by others. *San Franciscans for Reasonable Growth v. City and County of San Francisco*, 209 Cal.App.3d 1502, 1519-20 (1989); *A Local & Regional Monitor v. City of Los Angeles*, 12 Cal.App.4th 1773, 1809-10 (1993).

CEQA does not require analysis or adoption of every imaginable mitigation measure. *Gilroy Citizens for Responsible Planning v. City of Gilroy* (2006) 140 Cal.App.4th 911, 935. Thus, once mitigation measures are adopted to reduce an impact to less than significant levels, a lead agency is not obligated to adopt all additional measures or determine whether or not they may also be “feasible.”

Allegations that a lead agency's findings or decisions were not compliant with CEQA's mandates would be subject to review under an abuse of discretion standard. In imposing mitigation measures to reduce impacts to less-than-significant levels, the County has complied with the requirements of CEQA. "Abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence." *Cal. Pub. Res. Code § 21168.5; Laurel Heights Improvement Assn v. Regents of the University of California*, 47 Cal.3d 376, 392 (1988).

2.7.5 Substantial Evidence and Lead Agency Determination

Under the *CEQA Guidelines*, "substantial evidence" is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." (*CEQA Guidelines*, § 15384(a)). "Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." (*CEQA Guidelines*, §15384(b)). In ruling on any challenge to an agency's assessment of the evidence before it, "a court must indulge all reasonable inferences from the evidence that would support the agency's determination and resolve all conflicts in the evidence in favor of the agency's decision." *Gilroy Citizens for Responsible Planning v. City of Gilroy*, 140 Cal.App.4th 911, 918 (2006) (citing *Western States Petroleum Ass'n v. Superior Court*, 9 Cal.4th 559, 571 (1995)). Further, the California Supreme Court has held that "[a] court's task is not to weigh conflicting evidence and determine who has the better argument when the dispute is whether adverse effects have been mitigated or could be better mitigated. We have neither the resources nor scientific expertise to engage in such analysis, even if the statutorily prescribed standard of review permitted us to do so." *Laurel Heights*, 47 Cal.3d at 393.

In this document, there are a number of specific responses, such as responses ABJC-56 thru ABJC-65 in Section 3.8, *Adams Broadwell Joseph & Cardozo*, that present and discuss mitigation measures and their applications in detail. In these examples, in other examples throughout the DEIR and in the supplemental information presented herein, there is substantial evidence that justifies the conclusion that each of the proposed mitigation measures is "feasible," as defined in Section 2.7.3, above. All measures proposed for adoption are fully enforceable by the appropriate enforcement authority, as each would be included as a condition in the Land Use Permit to be issued by the County and some would also be included in the Authority to Construct / Permit to Operate to be issued by the BAAQMD. Each measure would also be subject to mitigation monitoring requirements, in accordance with the County's Mitigation Monitoring and Reporting Plan for the Proposed Project.