

### **3.8 Adams Broadwell Joseph & Cardozo, Attorneys at Law (ABJC)**

**Letter from Suma Peesapati, January 22, 2007**

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#### Responses to Letter from Suma Peesapati, January 22, 2007

ABJC-1 *The commenter states that the members of certain Unions are concerned because poorly planned projects can jeopardize their future jobs.*

ABJC-2 *The commenter states that the Union members live in the vicinity of environmentally detrimental projects and have to cope with the impacts.*

ABJC-3 *The commenter stated that in order to protect their members, Unions take interest in environmental law.*

RESPONSE: Comments ABJC-1 through ABJC-3 do not question the adequacy or contents of the DEIR and therefore do not require a response under CEQA Guidelines.

ABJC-4 *The commenter asserts that, for a variety of reasons, the DEIR fails to satisfy the basic purposes of CEQA. The commenter states that the DEIR fails to inform decision makers and the public about the Project's significant environmental impacts and fails to include adequate mitigation measures.*

RESPONSE: This statement summarizes several points that are brought up in detail later in this letter and in the submittal of Dr. Petra Pless. All of these issues are addressed as they are raised in detail later.

ABJC-5 *The commenter asserts, that the DEIR does not include all of the relevant data used to support the document's conclusions about environmental impacts.*

RESPONSE: This comment, along with comments ABJC-6 through ABJC-17a/b, provide the rationale and list background data and materials requested in three Public Records Act requests submitted by the commenter. See responses ABJC-6 through ABJC-17.

ABJC-6 *The commenter requested access to "Any and all materials related to SO<sub>2</sub> and PM<sub>10</sub> reductions at Conoco's Carbon Plant as referenced on page 4.2-26 of the DEIR. (Please note that this item includes all emission reduction calculations, any demonstration of baseline emissions, and support for abatement control efficiencies.)"*

RESPONSE: The County previously responded to this information request in a letter dated January 18, 2007.

The SO<sub>2</sub> and PM<sub>10</sub> emissions reductions referenced by Commenter would result from the implementation of Mitigation Measures 4.2.2c and 4.2.2d, which are described on pages 4.2-37 and 4.2-38 of the DEIR. These mitigation measures have been proposed by ConocoPhillips. ConocoPhillips has informed the County that it can reduce SO<sub>2</sub> and PM<sub>10</sub> emissions to less-than-significant levels through modifications to its Carbon Plant. These modifications are described in more detail in Response ABJC-60.

The County provided the commenter with all materials in its possession at the time that the commenter's Public Records Act requests were filed. The County was not in possession of calculations, analyses or other information that the commenter desires to obtain. It was not necessary to have this information in order to develop the mitigation measures because the measures are performance standards. No analysis was necessary in order to determine the size of the reductions that would be necessary in order for emissions to be below the significance thresholds. Some of the information that the commenter wishes to obtain has now been provided to the County by ConocoPhillips for purposes of inclusion in the Final EIR.

ConocoPhillips has submitted permit applications to the BAAQMD [BAAQMD Permits #13424 and 15328] to allow a series of modifications that would be necessary in order to accomplish the reductions required by the mitigation measures. The BAAQMD is a Responsible Agency under CEQA and would rely on the EIR certified by the County to complete the CEQA component of its permitting process for the Proposed Project. The BAAQMD has provided comments on the DEIR, but did not indicate that the DEIR's approach to implementing the mitigation measures was flawed or that the mitigation measures themselves would be inadequate.

If the Proposed Project was ultimately approved, then the County would require ConocoPhillips to comply with the mitigation measures because the measures would be conditions of approval of the Land Use Permit. During the mitigation monitoring phase of the Proposed Project, the County would require submittal of all analyses, calculations and supporting information necessary to verify compliance with the mitigation measures. Because the BAAQMD has special expertise in the area of evaluating air quality impacts and related mitigations, the County would consult with the BAAQMD and would consider their expert opinion when determining whether ConocoPhillips' submittal adequately demonstrated that the required emission reductions would be achieved. If ConocoPhillips could not demonstrate its ability to achieve the reductions required by the mitigation measures, then the County would not allow implementation of the Proposed Project.

General baseline issues are discussed in Section 2.5, Master Response – Baselines.

ABJC-7 *The commenter requested access to “Any and all materials related to VOC reductions at Conoco’s wastewater treatment plant. (Please note that this item includes all emission reduction calculations, any demonstration of baseline emissions, and support for abatement control efficiencies.)”*

RESPONSE: The ROG (VOC) emissions reductions would result from the implementation of Mitigation Measure 4.2.2a, which is described on pages 4.2-34 and 4.2-37 of the DEIR. This mitigation measure, like the mitigation measures related to SO<sub>2</sub> and PM<sub>10</sub> emissions, has been proposed by ConocoPhillips. These modifications are more fully described in response ABJC-57 and supporting information is contained in the documents referenced in response ABJC-8.

ABJC-8 *Commenter requested access to “All Excel spreadsheets that support emission estimates for criteria pollutants in Tables 4.2-9, 4.2-10, and 4.2-11 in the DEIR.”*

RESPONSE: The information supporting the emission estimates for criteria pollutants in Tables 4.2-9, 4.2-10 and 4.2-11 is contained in ConocoPhillips’ *Clean Fuels Expansion Project Application for Authority to Construct and Significant Revision to Major Facility and Air Liquide’s Application for Authority to Construct and Major Facility Review and Rodeo Clean Fuels Expansion Project Air Quality Supplement* which were provided in hard copy and CD format to the commenter’s copy service on Friday, December 8, 2006.

ABJC-9 *The commenter requested access to “Revised vehicle exhaust emissions estimates dated November 2006 and referenced in the DEIR at p. 4.2-31, footnote 7.”*

RESPONSE: This document is a spreadsheet with the file name *Truck and Commuter Exhaust Emissions Rev 11-06.xls*, which was provided in CD format to the commenter’s copy service on Friday, December 8, 2006.

ABJC-10 *The commenter requested access to “SFBRWQCB 2005, referenced in the DEIR at p. 4.14-10.”*

RESPONSE: This reference was a typographical error in the DEIR and will not be replaced with another reference. There is no information to provide in response to this comment.

ABJC-11 *The commenter requested access to “EBMUD 2005b, letter from William Kirkpatrick, EBMUD, referenced in the DEIR at p. 4.14-12.”*

RESPONSE: This letter was provided to the commenter in response to the commenter’s Public Records Act request dated January 23, 2006. Receipt of this letter is evidenced by a reference to it at p. 8 of the commenter’s January 22, 2007 letter regarding the adequacy of the DEIR.

ABJC-12 *The commenter requested access to “BAAQMD June 28, 2006 invoice for purposes of permit to operate fees, referenced in the DEIR, at p. 4.2-22.”*

RESPONSE: This is an incorrect citation in the DEIR. The information was provided through personal communication between the County’s environmental consultant and ConocoPhillips. This correction is indicated in response BAAQMD-10. Accordingly, the following reference is added to page 4.2-40 of the DEIR:

Uyeda, Valerie J., Permit Manager, ConocoPhillips San Francisco Refinery, Personal Communication, November 2006.

This information communicated was from the 2006 Permit to Operate invoice, which is publicly available at BAAQMD and was not provided to the County.

ABJC-13 *The commenter requested access to “The update of the technical support document for the energy and utilities supplement ‘Environmental Resource Management, Rodeo Clean Fuels Expansion Project, Energy and Utilities Supplement, November 2005, Revised May 2006.’ This update is referenced in the DEIR at p. 4.14-11.”*

RESPONSE: This information was provided to the commenter via fax on January 22, 2007.

ABJC-14 *The commenter requested access to “All data and information supporting the DEIR’s estimated pre-project product flow changes (as referenced in DEIR, Tables 3-4 and 3-5). This includes all information and data related to transport of products and imported materials via truck, marine vessels and barges, rail, and pipeline.”*

RESPONSE: ConocoPhillips provided this information to the County in the Project Description Supplement and its subsequent updates. The project description and its updates were provided to the commenter in response to the commenter’s various Public Records Act requests.

ABJC-15 *The commenter requested access to “All information and data supporting the DEIR’s claimed pre-project processing rates (as referenced in DEIR, Table 3-2). This includes all data supporting throughput at units to be modified including the uncracker, hydrocracker, Unisar, blending unit, and deisobutanizer.”*

RESPONSE: Table 3-2 was compiled from several sources. Most of the information was drawn from the *Project Description Supplement*. Information was also drawn from the various other information supplements, applications to the Bay Area Air Quality Management District and personal communications with ConocoPhillips. All of the documents used to compile the table have been provided in response to the commenter’s various Public Records Act requests.

ABJC-16 *The commenter requested access to “All data and information supporting the Project’s estimated fresh water consumption (see DEIR, p. 4.9-7).”*

RESPONSE: ConocoPhillips provided this information to the County in the *Hydrology/Water Quality Supplement* and the *Energy and Utilities Supplement*. The *Hydrology/Water Quality Supplement* was provided in hard copy format to the commenter’s copy service on Friday, December 8, 2006. The *Energy and Utilities Supplement* was faxed to the commenter on January 22, 2007.

ABJC-17a *The commenter requested access to “All data and information supporting the Project’s estimated wastewater increase (see DEIR, p. 4.9-23). This includes quantification of individual wastewater streams from the cooling tower, boiler blowdown, and other sources.”*

RESPONSE: ConocoPhillips provided this information to the County in the *Hydrology/Water Quality Supplement*, which was provided in hard copy format to Commenter’s copy service on Friday, December 8, 2006. For convenience, Section 6 of the Appendix of this document contains all water calculations for the EIR.

ABJC-17b *The commenter stated that the County violated CEQA by failing to provide substantial evidence to support its environmental conclusions and that a revised DEIR containing the relevant underlying data must be prepared for public review and comment. The commenter stated that they reserve the right to submit additional comments.*

RESPONSE: The commenter is stating an opinion with which the County disagrees. In response to the commenter’s various Public Records Act requests, the County has provided the commenter with a considerable volume of background and supporting information on the Proposed Project. There is substantial evidence in the record is to support the DEIR’s conclusions.

See Section 2.7, Master Response – Mitigation Measures for information on the CEQA definition of “substantial evidence.”

ABJC-18 *The commenter asserts that the DEIR does not include all of the raw data and evidence used to arrive at its quantitative impact and mitigation estimates. As a result, it is impossible for the public, and the County’s decision makers, to make an informed assessment of whether the impact estimates in the DEIR are correct and legitimate. The basic legal question is whether the DEIR findings are supported by substantial evidence.*

RESPONSE: This is an introductory comment and states opinions about the DEIR and the Proposed Project. The comment is a general statement of the commenter’s opinion and/or interpretation of the law, including their contention

that mitigation measures contained in the DEIR are not supported by substantial evidence. This contention is more fully addressed in Section 2.7, Master Response – Mitigation Measures.

Documentation and substantial evidence supporting all of the impacts, mitigation measures and conclusions set forth in the DEIR are included in the text of the document or in the accompanying Appendix, or referenced in supporting footnotes. All such documents and evidence are either public records available to the commenter, already in the possession of the commenter, supplied to the commenter pursuant to responses to Public Records Act requests or included within this document.

See also DEIR Tables 3-4 and 3-5 and responses ABJC-19 and ABJC-20.

ABJC-19 *The commenter states that the DEIR lacks evidentiary support for pre-Project product export figures, pipeline and marine transport figures, pre-Project energy consumption, Refinery throughput and construction energy demand.*

RESPONSE: The existing export of gas oil and fuels via marine barges figures, the pre-Project amount of gasoline shipped via pipeline and marine transport figures, the pre-Project volume of diesel and jet fuels and gas oils and fuel oils figures were derived by ConocoPhillips from review of business confidential records that included shipping quantities and client information. These data were provided to the County in summary form. Therefore, evidentiary support exists for these trip values, but cannot be disclosed in the DEIR.

The commenter incorrectly states that the DEIR takes credit for emissions reductions from reduced transportation of materials. Despite the reduced marine traffic that will result from the Proposed Project, no credit is taken for emissions reductions due to transportation. The emissions presented in the DEIR include increases in railcar, truck traffic and commute traffic. Reductions in marine transportation emissions were not included in the DEIR and no credit for these reductions is being recognized.

Supporting evidentiary documentation has been provided within the DEIR and within supporting technical documents, BAAQMD air quality permit applications, PSD applications and health risk assessments. In these documents, actual data was considered, referenced and made publicly available. These data and associated references for air quality, public health, public safety, energy, and hydrology and water quality, are included in the Appendix. Construction energy demand spreadsheets used in the preparation of Table 4.5-3 are included in the Appendix. See response ABJC-18.

ABJC-20 *The commenter states that they had to rely on Public Records Act requests to obtain information on emission reductions. Further, the commenter expresses alarm that these data were not available at that time. The commenter alleges that the County relied too heavily on figures supplied by ConocoPhillips and did not exercise its independent judgment.*

RESPONSE: The commenter has submitted several Public Records Act requests asking for data and information that support the DEIR. The County has provided the information requested in a timely manner. (See ABJC-6 through ABJC-17b) Additional information has been submitted by ConocoPhillips and has been reviewed and accepted by the County and is provided as part of the Final EIR. In addition, BAAQMD, which is a responsible agency, has reviewed and concurred with the air quality emissions information supplied to the County. As explained in response ABJC-6, it was not necessary to have all technical information in order to develop certain mitigation measures. See Section 2.7, Master Response – Mitigation Measures.

These mitigation measures will be enforced both by mitigation monitoring and via a permit issued by the BAAQMD. That permit will also provide for post-Project testing to demonstrate that the required reductions are being achieved. The mandated reductions, as well as verification requirements, will be included as conditions imposed in either or both the Land Use Permit to be issued by the County or the Authority to Construct to be issued by the BAAQMD.

ABJC-21 *The commenter states that comments from responsible agencies should have been included in the DEIR.*

RESPONSE: The commenter references a portion of the CEQA Guidelines that discusses the requirements for a responsible agency to respond to a Notice of Preparation and then references several letters received by the County. The commenter failed to recognize that the majority of the letters were either received prior to the County mailing the Notice of Preparation or were submitted by agencies that are not responsible agencies as defined by CEQA. Thus, the commenter's assertion that the County is required to respond to all of these letters in the DEIR is incorrect.

The commenter also interprets the CEQA Guidelines to require the publishing of all of the comment letters within the DEIR. The County interprets the Guidelines to require that all of the issues raised by responsible agencies be addressed in the DEIR. For each of the responsible agencies, the development of the DEIR included full consideration of the scope and content of the environmental information related to the agency's statutory responsibilities in connection with the Proposed Project.

ABJC-22a *The commenter asserts, in general, that the DEIR fails to disclose or analyze all potentially significant impacts and that the DEIR should be revised to address these impacts and recirculated for public review.*

RESPONSE: This comment reflects the commenter's opinion. Certain requirements must be met before it is necessary to recirculate the DEIR. These requirements are discussed in detail in Section 2.1, Master Response - Recirculation. The County has determined that none of the requirements for recirculation have been met. The specific impacts mentioned in this comment are addressed in greater detail in the comments that follow and are responded to as they are addressed.

ABJC-22b *The commenter asserts that the DEIR fails to disclose and analyze all potentially significant impacts on air quality. The commenter asserts that the DEIR makes fatal errors and fails to provide adequate mitigations to protect the public health..*

RESPONSE: The specific impacts and issues raised in this comment are addressed in greater detail in the comments that follow and are responded to as they are addressed.

ABJC-23 *The commenter asserts that the DEIR used the incorrect baseline and must use emission levels at the time of the NOP as the baseline emissions.*

RESPONSE: The commenter's assertion is incorrect. The County used appropriate baselines for a project of this nature. See Section 2.5, Master Response – Baselines.

ABJC-24 *The commenter asserts in this introductory comment that the DEIR used faulty assumptions to estimate emissions caused by the Proposed Project in operation.*

RESPONSE: This comment is a general statement of the commenter's opinion and/or interpretation of CEQA, including the contention that the DEIR used an incorrect baseline for the Project, failed to account for all Project emissions, and overestimated reductions to be achieved from certain mitigation measures. None of these contentions are supported by the record, as is set forth in more detail in Responses ABJC-25 thru -33 and ABJC-92 thru -97, also Section 2.7, Master Response – Mitigations Measures, and Section 2.5, Master Responses – Baselines.

ABJC-25 *The commenter asserts that the emissions estimates for a number of sources including fugitive dust, paved roads, and combustion exhaust emissions associated with delivery truck trips were underestimated.*

RESPONSES: The paved road dust calculation in the DEIR is based on the 9.2 daily roundtrip truck trips for transportation of a variety of raw materials and

products. The purpose of the calculation is to address stationary source emissions from the project for the BAAQMD air quality permit. The commenter incorrectly states that the calculation only included fugitive dust emissions from on-site truck travel. To the contrary, the calculation assumed a round-trip in the vicinity of the Refinery. The emission calculation was focused on the Project vicinity rather than distance traveled within the entire air basin.

The 22 new employee commuter trips were not included in the paved road dust calculation. Neither the BAAQMD rules and regulations nor the BAAQMD CEQA Guidelines address calculation of paved road dust from commuting vehicles due to operations of a new project.

Fugitive dust emissions from the Project's increased operational truck travel on paved roads were quantified appropriately in the DEIR using factors from the EPA AP-42 emission factor document. The silt loading factor used in the paved road emission calculation is appropriate. There are no unpaved roads or staging areas within the Refinery that would be used during operations. The Refinery's operating procedures and guidelines are designed to prevent spillage, and to promptly clean any spillage should it occur. The Best Management Practices at the Refinery include periodic street cleaning of Refinery roads to prevent significant accumulations of silt.

The commenter wrongly asserts that a silt loading factor for industrial activities should be used. It is not appropriate to compare the silt loading on Refinery roads to those listed in AP-42 for industrial activities that typically generate substantial amounts of dust and silt, which include copper smelting, asphalt batching, concrete batching, and iron and steel production. Fewer than 5,000 vehicles per day travel on these roads; thus the silt loading factor of 0.4 would apply (based upon EPA AP-42 emission factor). The DEIR's estimate for fugitive dust emissions was therefore based upon the appropriate factors and methodology, and upon substantial evidence to support the conclusions. No revision of these emissions calculations is necessary or appropriate.

ABJC-26 *The commenter asserts that the fugitive dust emissions are underestimated.*

RESPONSES: See responses ABJC-25.

ABJC-27 *The commenter states that the 9.2 roundtrip truck estimates on page 4.2-31 of the DEIR, left out an additional 9 truck round trips per day from hauling liquid oxygen.*

RESPONSE: Preliminary concepts of the Proposed Project included utilization of oxygen enrichment at the existing sulfur plants. The current design, as presented in the DEIR, is to build a new sulfur plant that will not require oxygen

enrichment. Therefore there will not be an increase of liquid oxygen trucks associated with the Proposed Project.

ABJC-28 *The commenter states in this introductory comment that some emission sources were left out of the document.*

RESPONSE: The comment is a general statement which contends that several sources of emissions were not included in the DEIR (i.e., the Cooling Tower, butane loading rack, on-site mobile equipment, secondary particulate, and electricity generation). This comment is addressed in more detail in responses ABJC-29 through ABJC-33.

ABJC-29 *The commenter states that the DEIR must include emissions from the cooling tower even if BAAQMD Rule 2-1-128.4 classifies it as an exempt source.*

RESPONSE: The commenter is correct. The Proposed Project emissions have been revised to include cooling tower drift. Emissions from the proposed new Hydrogen Plant Cooling Tower were estimated in Table 3-7, "Estimated Hydrogen Plant Cooling Tower Emissions," and in the Hydrogen Plant Project Application for Authority to Construct, submitted to the BAAQMD in October 2005 and updated in September 2006. Emission estimates for the cooling tower have changed since the filing of the Application. Air Liquide, the future Hydrogen Plant operator, has obtained additional design information from its suppliers on the Cooling Tower parameters affecting the estimated PM<sub>10</sub> emissions. Updated emission estimates are provided in a revised Table 3-7 as shown below.

**Table 3-7**  
**Estimated Hydrogen Plant Cooling Tower Emissions – Revised (Feb 2007)**

Operations parameter	Value
Tower Capacity (MM gal/day)	5.3
Maximum water hardness (ppm TDS) <sup>(1)</sup>	1300
Drift Loss (% of flow capacity) <sup>(2)</sup>	0.0044%
Weight of water (lb/gal)	8.34
Maximum PM <sub>10</sub> emissions (lb/yr) <sup>(3)</sup>	928
Maximum PM <sub>10</sub> emissions (ton/yr) <sup>(3)</sup>	0.46
POC Emission Factor (lb/MM gal) <sup>(4)</sup>	1.50
Maximum POC emissions (lb/day)	8.0
Maximum POC emissions (ton/yr)	1.5

1. Previous water hardness value of 3000 ppm TDS was a worst-case estimate. Updated value of 1300 ppm is based upon planned operational levels.
2. Vendor estimate updated with actual design optimization information from McMillan Choate & Assoc.
3. Calculation method from Section VI (Engineering Evaluation Template) of BAAQMD Permit Handbook Chapters, Cooling Towers.
4. EPA AP-42 Table 5.1-2. Uncontrolled by monitoring. Emission factor reduced to one-quarter of referenced value due to POC content of stream.

The Cooling Tower associated with the Project is an exempt source pursuant to BAAQMD Rule 2-1-128.4. Its emissions, however, are included in revised Tables 4.2-10 and 4.2-11 of the DEIR. With additional PM<sub>10</sub> emissions of 2.54 lb/day and 0.46 ton/year, and POC emissions of 8.0 lb/day and 1.5 ton/year, the Proposed Project emissions remain below daily and annual BAAQMD CEQA significance thresholds.

ABJC-30

*The commenter states that the DEIR must include emissions from the butane loading rack even if BAAQMD Rule 2-1-123.1 classifies it as an exempt source.*

RESPONSE: The butane loading rack is exempt from permitting under BAAQMD Rule 2-1-123.1. The commenter correctly identifies that these emissions are part of the Proposed Project and should be included in the Proposed Project emissions estimates. Emissions from the new butane loading rack are from fugitive components only. The Proposed Project emissions are based on 2005 ROG emissions from the existing butane loading rack. The additional ROG emissions from the butane loading rack are 1 pound ROG per day and 0.2 tons ROG per year. These data are in updated Table 4.2-10 REVISED and Table 4.2 11 REVISED in the Appendix A (see response BAAQMD-16). With the addition of the cooling tower PM<sub>10</sub> and ROG emissions and the butane loading rack ROG emissions, the mitigated Project emissions still remain below daily and annual BAAQMD CEQA significance thresholds.

See response BAAQMD-16.

ABJC-31 *The comment states that increased operations at the Refinery would result in increased on-site traffic from vehicles transporting workers to their sites and vehicles for maintenance, repair and inspection, as well as increased use of on-site mobile equipment such as forklifts. The commenter states that these emissions were omitted and should be quantified.*

RESPONSE: The commenter is incorrect. Project emissions in the DEIR include on-site operational traffic. Mobile equipment, other than trucks, is generally not used within the process units or tank farms in the Refinery. Forklifts are not commonly used in the Refinery and there should not be an increase in this type of equipment due to the increased production at the Refinery.

ABJC-32 *The commenter suggests that the DEIR fails to entirely address secondary particulate formation of PM<sub>2.5</sub> from combustion sources and their impact on the existing air quality in the region. It also asserts that the DEIR fails to quantify all ammonia emissions from the Hydrogen Plant.*

RESPONSE: Secondary particulate matter is not a directly regulated contaminant. Secondary particulates are formed when other “primary” contaminants react with other compounds. These primary contaminants (NO<sub>x</sub>, SO<sub>2</sub>, and ROG) are regulated in part to control the contaminants that they may produce.

Significance thresholds for PM<sub>2.5</sub> emissions have not been developed or incorporated into the BAAQMD CEQA Guidelines and are not otherwise established. Methods for predicting the formation of ammonium sulfate, ammonium nitrate and thus secondary PM<sub>2.5</sub> are also not well-developed. The DEIR has disclosed and addressed the Project’s criteria pollutant PM<sub>10</sub> emissions (which includes primary PM<sub>2.5</sub> emissions as a subset), NO<sub>x</sub> emissions, SO<sub>2</sub> emissions, and ROG emissions. As demonstrated in Chapter 4.2 of the DEIR, the Proposed Project’s criteria pollutant emissions have been quantified and would be mitigated by the Project to less-than-significant levels, which in turn would reduce the potential for formation of secondary contaminants including secondary particulate to a less-than-significant level.

Even if an estimate of PM<sub>2.5</sub> emissions from these sources could be developed, a relevant standard for determination of significance is not currently available and a reasoned analysis and conclusion as to significance is not possible. In such circumstances, the CEQA Guidelines 15145 state that the lead agency “should note its conclusion and terminate discussion of the impact.”

As the commenter states (see ABJC Comment 103, p. 37), limited data suggest that there is an excess of ammonia in the Bay Area atmosphere. Formation of

PM<sub>2.5</sub> requires a reaction of available ammonia in the atmosphere with other gaseous precursor compounds such as NO<sub>x</sub>, and/or SO<sub>2</sub>. Additional emissions of ammonia alone are therefore not likely to be responsible for additional formation of PM<sub>2.5</sub> in the surrounding atmosphere.

### **Hydrogen Plant Ammonia Emissions**

Ammonia emissions from the Hydrogen Plant's SMR furnace and deaerator vent were accounted for in the Public Health Section of the DEIR in Table 4.7-3. The majority of these emissions come from ammonia slip from the SMR furnace, resulting from control technology used to achieve required reduction of NO<sub>x</sub> emissions at this source, and limited by proposed permit conditions. The contribution of the Hydrogen Plant to the Project's ammonia emissions can be found in "*Hydrogen Plant Project Application for Authority to Construct and Major Facility Review Permit*" submitted October 2005, Section 4.1, pages 13-15 (referenced by DEIR on page 4.2-40 – note that DEIR incorrectly identifies the date of submittal as October 2006, rather than October 2005).

The aqueous ammonia storage tank is described on page 4.2-34 of the Air Quality Section of the DEIR, as a pressure vessel with a nitrogen blanket. Unlike a fixed roof tank operated at atmospheric pressure, where the emissions occur from displaced vapors during filling operations or from evaporation due to temperature or pressure change, aqueous ammonia will be charged to the tank for storage under pressure at 16 psig with vapor space occupied by a nitrogen blanket. The storage tank is designed with a pressure relief device so as not to damage the tank when the maximum pressure is exceeded. Pressure vessels are designed to operate with no vapor losses from evaporation or during filling operations. For this reason, inclusion of potential ammonia emissions from the aqueous ammonia tank is not warranted.

ABJC-33 *The commenter states that the DEIR left out emissions caused by the purchase of 9.8 MW from PG&E. A worst-case scenario, in which all generation sources are running at full capacity, must be studied to determine the impact from Conoco's proposed increase in electricity generation.*

RESPONSE: The air emissions from the Proposed Project's power generation within the Refinery are presented and discussed in the DEIR analysis in Section 4.2, Air Quality, and in this Response to Comments.

The commenter implies that the 9.8MW required for the Proposed Project would result in additional, indirect air pollutant emissions from polluting sources. The commenter ignores the fact that it is not possible in practice to determine where the sources of electrical energy on the grid originate (see DEIR Section 4.5, Energy). While PG&E is the local distributor of electricity and does generate some of the electrical power available through the grid by a mix of hydro,

nuclear and fossil-fueled power, other companies within California are also substantial generators of electrical power, mostly through the use of fossil fuels, some geothermal power and alternative methods such as wind and solar energy. In addition, electrical power is imported into the state from hydro-power facilities in the Northwest and fossil-fueled power plants in the Southwest. This mix of electrical sources, which changes hour-by-hour, is controlled by the California Independent System Operator (CA-ISO).

As a result, it cannot be determined how the Proposed Project would affect the operation of the PG&E grid or of any of the power plants that supply electricity to the PG&E grid. Further, one cannot know whether the electrical power available to the Refinery through the PG&E grid comes from power plants that emit air pollutants or from those that do not. Therefore, it would be speculative to try to assess the air emissions generated by the additional indirect power demand of the Proposed Project.

For CO<sub>2</sub> emissions associated with indirect energy usage, see Section 2.2, Master Response - Greenhouse Gases.

ABJC-34 *The commenter states that the DEIR fails to analyze PM<sub>2.5</sub> impacts.*

RESPONSE: See response ABJC-32 and GNAC-4.

ABJC-35 *The commenter states that construction air quality impacts are significant and not adequately mitigated.*

RESPONSE: See Section 2.6, Master Response – Construction-Related Effects and Section 2.7, Master Response – Mitigation Measures.

ABJC-36 *The commenter states that because the DEIR fails to provide quantitative emissions estimates, there is no way to assure that the construction mitigation measures would effectively reduce potentially significant impacts to a less than significant level.*

RESPONSE: See Section 2.6, Master Response - Construction-Related Effects. The cited case law, *Kings County Farm Bureau v. City of Hanford*, 221 Cal.App.3d 692 (1990), does not require the DEIR for the Proposed Project to contain a detailed quantification of short-term construction-related air quality impacts. The case states:

‘An adequate EIR must be ‘prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences.’ (Guidelines, 15151) It ‘must include sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project’ [citation omitted]. CEQA requires an EIR to reflect a good faith

effort at full disclosure; it does not mandate perfection, nor does it require an analysis to be exhaustive'

*Kings County*, at 711.

With respect to construction emissions, BAAQMD has recommended an approach that provides sufficient information for decision makers to evaluate the impacts of the Proposed Project.

ABJC-37 *The commenter indicated that the DEIR misinterprets the BAAQMD's recommended approach to the assessment of construction impacts, which are contained in the BAAQMD's CEQA Guidelines. In addition, the commenter references BAAQMD staff comments on the administrative Draft EIR regarding the quantification of construction emissions.*

RESPONSE: For responses related to the interpretation of BAAQMD's CEQA Guidelines related to the assessment of construction impacts, see Section 2.6, Master Response – Construction-Related Effects.

BAAQMD staff reviewed one version of the County's administrative Draft EIR and their informal review copy contained margin notes indicating that construction emissions associated with the Proposed Project should be quantified. However, these represent BAAQMD staff's preliminary comments on an in-progress draft document and do not present the BAAQMD's official comments on the DEIR.

Subsequent to the release of the DEIR, the BAAQMD reviewed the document and provided the County with its official comments, general and specific, on the published DEIR (see Comment Letter BAAQMD). The BAAQMD's official response included a number of comments related to requests for inserts and clarifications related to the analysis of construction impacts and mitigation measures. None of the BAAQMD's official comments on the DEIR requested the quantification of Proposed Project construction emissions or indicated that the methodology employed in preparing the DEIR was faulty. See BAAQMD response letter, Section 3.3.1.

ABJC-38 *The commenter states that by not evaluating site-specific construction emission impacts of the Project and by not adopting all feasible mitigation measures, the County has not complied with CEQA.*

RESPONSE: For a discussion of the County's assessment of construction impacts specifically related to the quantification of emissions, see Section 2.6, Master Response – Construction-Related Effects. For a discussion of the County's obligation to adopt mitigation measures to mitigate potentially

significant impacts to less-than-significant levels, see Section 2.7, Master Response – Mitigation Measures.

The commenter’s assertion that the DEIR does not contain a site-specific analysis of construction impacts is incorrect. Although the analysis does not contain a quantification of construction emissions, the analysis is unique to the Proposed Project and includes detailed information related to construction activity assumptions and anticipated exhaust and fugitive dust emissions sources, and contains specific mitigation measures designed to reduce construction emissions of fugitive dust and diesel exhaust.

ABJC-39 *The commenter asserts that the BAAQMD CEQA Guidelines do not excuse a site-specific analysis and refer to an analysis that the commenter’s expert conducted related to construction emissions associated with the Proposed Project.*

RESPONSE: See Section 2.6, Master Response – Construction-Related Effects. See also response ABJC-38.

ABJC-40 *The commenter states that diesel exhaust emissions from construction equipment are significant.*

RESPONSE: The significance of these exhaust emissions have been judged based on the applicable criteria provided by the BAAQMD. For diesel emissions, the most stringent of these criteria is the cancer risk due to exposure to diesel particulate matter. See Section 2.6, Master Response – Construction-Related Effects. The BAAQMD’s official comments on the DEIR did not question the adequacy of the DEIR’s analysis of fugitive emission. See BAAQMD response letter, Section 3.1.

ABJC-41 *The commenter states that that there needs to be a “quantitative, reasonable worst-case” analysis of construction emissions that considers a wide range of emissions sources.*

RESPONSE: The Proposed Project includes detailed information related to construction activity assumptions and anticipated exhaust and fugitive dust emissions sources, and contains specific mitigation measures designed to reduce construction emissions of fugitive dust and diesel exhaust.

See DEIR Section 4.8 Public Safety for a discussion of the handling of toxic or hazardous materials during construction of the Proposed Project. See Section 2.6, Master Response – Construction-Related Effects.

ABJC-42 *The commenter states that the DEIR does not include or mitigate public health impacts.*

RESPONSE: The commenter incorrectly states that the DEIR considered only a subset of emissions when analyzing the incremental health risks from the Proposed 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, identified in Table 4.7-3 of the DEIR, include about 60 compounds.

Also see Section 2.6, Master Response – Construction-Related Effects and response BAAQMD-20, which presents an updated Table 4.7-3 as Table 4.7-3 REVISED.

ABJC-43

*The commenter asserts that the Construction Health Risk Assessment (HRA) is inadequate and substantially underestimates the health risks associated with the Proposed Project. The commenter states that the incremental health risks due to the Proposed Project would most likely be significant.*

RESPONSE: The HRA analyzed the construction impacts of delivery trucks traveling to and from the site, because they would travel closer to offsite receptors; whereas other construction equipment would be on-site and thus farther away from, and have little effect on sensitive receptors. Therefore, the DEIR correctly assesses the construction health risks and does not substantially underestimate the risk from construction emissions by not including other sources. 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 7 truck trips per day. The commenter correctly identifies an inconsistency between the HRA and the project description in the number of delivery trucks identified. 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 to the current level in the construction plans and those TAC emissions have been recalculated and re-modeled. The updated results of the HRA are contained in Table 4.7-2 REVISED that is presented in Section 2.6.4 of Section 2.6, Master Response – Construction-Related Effects.

When calculating the impacts of carcinogenic emissions from diesel construction equipment, that HRA assumes the worst-case, which is that construction emissions from the project would occur over the entire life of the project, and does not factor in the limited duration of these construction emissions. Thus, the lifetime risk estimates from construction are worst-case estimates, and actual construction risks would be much lower. In spite of this worst-case assumption, the estimated maximum impacts from construction are well below the CEQA significance thresholds.

The commenter asserts that the incremental health risks from the Proposed Project would be significant if the emissions from concurrent industrial projects and developments in the region are included in the HRA. The County identified possible concurrent projects and determined that there are no known concurrent projects that would have a significant effect on the same sensitive receptors as would the Proposed Project at the Refinery. Therefore, a cumulative HRA was not conducted.

The commenter 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 from 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 due to activity throughout a region, as opposed to specific, single-event construction activities.

Also see Section 2.6, Master Response – Construction-Related Effects.

ABJC-44 *The commenter states that the operation health risk assessment is flawed because it used an incorrect number of truck trips. The commenter states that the operational health risks appear to be considerably underestimated.*

RESPONSE: The operational health risk assessment has been updated to include 9.2 truck round trips (18.4 one-way trips) for operations. The results of the updated health risk assessments are presented below in Table 4.7-4 REVISED, which updates Table 4.7-4 in the DEIR. These results are still well below the risk thresholds of significance found at BAAQMD Regulation 2, Rule 5 Section 2-5-302, the Project Risk Requirement for New Source Review of Toxic Air Contaminants. The detailed emissions calculations for operational trucks are presented in the Appendix.

Table 4.7-4 of the DEIR on page 4.7-9 is completely replaced by the following table.

**TABLE 4.7-4 REVISED  
SUMMARY OF INCREMENTAL HEALTH RISKS FROM PROPOSED PROJECT OPERATIONS**

Type of Estimated Health Impact <sup>a</sup>	Cancer Risk (per million)	Chronic Hazard Index <sup>b</sup>	Acute Hazard Index <sup>b</sup>
Maximum Exposed Individual Worker (MEIW) 566076E, 4211562N	0.557	0.127	0.0545
Maximum Exposed Individual Residential (MEIR) 566185E, 4211393N	1.63	0.0470	0.0149
Residential Carcinogenic Risk at the Point of Maximum	2.92		

Type of Estimated Health Impact <sup>a</sup>	Cancer Risk (per million)	Chronic Hazard Index <sup>b</sup>	Acute Hazard Index <sup>b</sup>
Downwind Impact (PMI) 566076E, 4211562N			
Chronic Noncancer Hazard Index at PMI 566116E, 4211542N		0.127	
Acute Noncancer Hazard Index at PMI on San Pablo Avenue			0.0545

<sup>a</sup> Urban dispersion coefficients produced the highest risk results for cancer and chronic risks, and rural dispersion coefficients produced the highest acute risk results.

<sup>b</sup> Chronic and Acute Hazard Index results are updated in accordance with the response to BAAQMD Comment 22.

Notes: Includes updated delivery truck round trip mileage and ammonia, sulfuric acid mist, and hydrogen sulfide emissions from the new Unit 235 SRU.

Also see response ABJC-43, above, and Section 2.6, Master Response – Construction-Related Effects.

**ABJC-45** *The commenter states that the DEIR does not disclose and analyze all potentially significant water quality impacts. In addition, the commenter states that ConocoPhillips should: not defer the anti-degradation study until after the DEIR is certified; show how it will comply with the California’s anti-degradation policy; disclose the increased demand for freshwater and once-through cooling water; and must disclose and analyze all potentially significant impacts on aquatic life due to once-through cooling water.*

**RESPONSE:** [Note: due to the length of the comment, this response refers to the headings used by the commenter which include the comment letter headings C.1 through C.4 and D.1 and D.2.]

C.1 - As stated in the DEIR (p. 4.9-23 and 4.9-24), ‘the RWQCB may require an industrial discharger to submit an Anti-degradation Report, which would address mass increases of pollutants discharged and propose new treatment process units, if necessary, to maintain water quality’ and ‘the RWQCB would have the authority to modify (according to CFR 40 122.62(a)(1)), but not revoke and reissue (unless ConocoPhillips requests or agrees), the existing NPDES permit under certain circumstances specified in the NPDES regulations.’ The study proposed by the applicant in Exhibit D, referred to by the commenter, would consist of reviewing data that is already required by the existing NPDES permit. It is incorrect to refer to the study as one defined by ConocoPhillips as the scope would be agreed upon and approved by the RWQCB. The proposed study does not constitute a separate unique study or deferred analysis, but rather a confirmation study to be submitted to and evaluated by the RWQCB to demonstrate the Refinery’s continued compliance with the existing NPDES permit. Use of the data collected from the time period of startup of the Ultra Low Sulfur Diesel project up until the startup of the Proposed Project is an appropriate baseline for the purposes of evaluating the Proposed Project’s (and the

Refinery's) compliance with the NPDES permit because it allows a longer range of data to more accurately detect fluctuations in concentration levels that are inherent in wastewater discharges. The available wastewater discharge data collected prior to the issuance of the NOP was included in the DEIR in Table 4.9-1 on page 4.9-11 for the purpose of the CEQA baseline. The data included sampling conducted from January 2003 to August 2005 which adequately demonstrates past compliance with the Refinery's NPDES permit. As stated in the DEIR, the continued involvement of the RWQCB to monitor the discharges as specified in the NPDES permit will assure appropriate oversight and monitoring of the Refinery's wastewater discharges.

C.2 -The DEIR discusses exceedances of two constituents (Copper and Total Suspended Solids) compared to NPDES permit limits on page 4.9-23. The document referred to in Exhibit D by the commenter consists of correspondence related to the development of revised discharge limitations the RWQCB developed during the last renewal of the Refinery's NPDES permit. Table 4.9-1 on page 4.9 11 of the DEIR shows the current discharge limits established in the NPDES permit. Some of these limits (e.g. mercury and selenium) represent interim limits set by the RWQCB until the revised limits take effect according to the compliance schedule.

As allowed, during development of revised limits, the RWQCB determined that there was a reasonable potential to cause or contribute to exceedance of water quality standards for certain constituents. For each constituent that has such "reasonable potential," the Regional Board is required to include water quality-based effluent limits (WQBELs) in the discharger's permit which are necessary to meet water quality standards; see 40 C.F.R. 122.44(d). Based on the RWQCB's finding of "reasonable potential" for mercury and selenium, the Refinery's NPDES permit contains WQBELs to act as interim limits for each of these chemicals. The Refinery's existing discharge consistently complies with all permit effluent limits, including those for mercury and selenium. (See discussion at DEIR, page 4.9-23.) It is anticipated that the additional discharge of metals as a result of the Proposed Project will be insignificant and will remain within the Permit limits. The Refinery will remain subject to those limits and load allocations once they are established. The imposition of these enforceable regulatory limits mitigates impacts from wastewater effluent discharges. Therefore, the Demonstration of Infeasibility referenced by the commenter represents standard procedural documentation required by the NPDES permit and is not considered a violation.

Additionally, with regard to selenium, Bay Area refineries are governed by an Individual Control Strategy (ICS) adopted pursuant to Clean Water Act 304(1), under which ConocoPhillips has achieved significant reductions. To implement the ICS, the Refinery installed the Selenium Reduction Plant (SRP) which began operating in 1998. The SRP has enabled the Refinery to reduce selenium

discharges from 140 lbs/month to 14 lbs/month. According to the San Francisco Bay Regional Water Quality Control Board, *Selenium Issue Paper* (May 1, 1997), Bay Area refineries and river sources (the Sacramento and San Joaquin rivers) both contributed approximately 2500 lbs/year each of selenium to the Bay. Based on that estimate, the SRP has enabled the Refinery to eliminate over half of the total contribution from all Bay Area refineries. The SFEI Report (pages 53 and 54) acknowledges that selenium loads from oil refineries have been reduced under the ICS, and attributes continued high selenium levels in fish to agricultural runoff and nonpoint sources which have not been controlled. Regarding mercury, the evidence indicates that refineries in general and ConocoPhillips in particular are not substantial sources of mercury discharges in wastewater and do not contribute significantly to public health impacts. The RWQCB has issued a TMDL Report on mercury which finds that very little mercury is discharged in refinery wastewater effluent (TMDL Report, p. 64). Specifically, the erosion of mercury-enriched sediment from historical hydraulic gold mining activities in the Sierra Nevada is estimated to be the largest source of mercury to the Bay. (TMDL Report, p.12) Furthermore, all municipal and industrial discharges to the Bay account for about 2% of the Bay's total mercury load; of this 2%, all Bay Area refineries account for about 0.2 % and Conoco accounts for less than 0.02 %. (TMDL Report, p. 24) The San Francisco Estuary Institute report, *Contaminant Concentrations in Fish from San Francisco Bay, 2000* (July 2003) (SFEI Report), pages 13 through 17 and Figure 6, demonstrates that mercury levels in Bay Area fish are declining, and that levels in San Pablo Bay fish are lower than elsewhere. Spatial, temporal and species-specific data on mercury levels in fish are consistent with their origin from historic sources, primarily mining operations.

The statement that ConocoPhillips is in violation of its NPDES permit limits for selenium and mercury is incorrect. As is stated in the DEIR, the applicant is in compliance with the water quality regulations as well as the plans, policies, and criteria of the Basin Plan; water quality objectives will be imposed to assure continued permit compliance at the Refinery, including the Proposed Project. Currently, the interim limits reported in the DEIR on page 4.9-11 will remain in effect until April 27, 2010 for cyanide and selenium, and until May 17, 2010 for copper, 4,4-DTE, dieldrin and PCB's or until the RWQCB amends the limits based on site-specific objectives or the waste load allocations in the TMDLs. Wastewater discharge changes to the existing treatment plant are not significant enough to change the quality of the existing effluent. Therefore, the Proposed Project will not significantly impact compliance with interim effluent limits or with the proposed final limits. It would not be appropriate for the DEIR to assume that the NPDES permit conditions would be willfully violated, therefore water quality impacts related to a discharge regulated by an NPDES permit are deemed to be less than significant without further mitigation.

The cumulative analysis also considers the fact that the Refinery operates under an existing NPDES permit and would be required to continue to comply with the requirements of the permit in addition to other plans and policies as described in the DEIR upon completion of the Proposed Project. The discharge limits set in the NPDES permit use water quality criteria and objectives to protect the beneficial uses of San Pablo Bay. With the development of TMDLs, which the Proposed Project will be required to adhere to in addition to the NPDES permit requirements, the potential incremental effects of the Proposed Project would be mitigated. The TMDLs and NPDES permit limits are set based on cumulative effects to the receiving waters. Therefore, continued compliance with these water quality standards is not considered cumulatively significant provided that the limits are not exceeded. As stated in the DEIR (page 4.9-24), the RWQCB may amend or revoke the permit if adverse effects on receiving waters are determined. It is also worth noting that the RWQCB's adoption of the NPDES permit requirements is exempt from CEQA requirements (CEQA Guidelines § 15263) to assure that the RWQCB—the regulatory agency with the most knowledge and the responsibility for assuring that water quality is not degraded so as to impact the designated present and potential beneficial uses—will have the unimpeded ability to set and enforce the appropriate waste discharge limits to achieve the objectives of the Basin Plan.

As stated above, the strategy and schedule of compliance referred to by the commenter relates to the coordination with the RWQCB to develop revised discharge limitations for such constituents as mercury and selenium and in the meantime, interim limits are in effect. The applicant will be required to continue to comply with the NPDES permit and future TMDL requirements once finalized with or without the Proposed Project.

C.3. - Comment is noted that the applicant will be required to comply with the Anti-Degradation Policy as also stated in the DEIR on page 4.9-23.

C.4. - The Proposed Project does not require an increased demand for once-through saltwater cooling water as suggested by the commenter. The Proposed Project will require the use of 1.1 million gallons per day of freshwater from EBMUD, as stated in the DEIR on p. 4.14-9. The saltwater system is currently pumped at an average rate of 33.5 million gallons per day through 46 heat exchangers and then discharged through outfall E-003. The Proposed Project adds no new heat exchangers to the once-through saltwater cooling system and does not change the pumping rate. There is, therefore, no impact to the once-through saltwater cooling system from the Proposed Project and there is no further analysis required on this issue in the DEIR.

The Proposed Project would require additional heat exchangers to be installed at the existing hydrocracker, new heavy gas oil (HGO) hydrocracker, the sulfur recovery units, and new Hydrogen Plant, but none of those would increase the

saltwater demand. The Proposed Project would follow current industry practice to utilize air coolers to reduce the demand for cooling water. Where water-cooled heat exchangers are required, they would be incorporated into new or existing freshwater cooling tower systems. A discussion regarding the increased freshwater demand was included in DEIR Section 4.14.4.

D.1. - Claims that the total mass pollutant content would likely increase by more than the 3% increase of total flow to the wastewater treatment plant are unfounded. The increased flow of wastewater to the wastewater treatment plant would primarily come from cooling water and boiler water blowdown. Slightly increased mineral concentration of discharged cooling tower water would be due to the concentrating effect of evaporation of incoming supply water, not to increased pollutant by-products of the refinery processes. Cooling water blowdown is freshwater that has had the minerals concentrated and corrosion control chemicals added. Boiler blowdown is demineralized water with corrosion control chemicals added. Both of these wastewater streams contain very low COD (chemical oxygen demand) loading and no hydrocarbons, which is an important measure of a wastewater stream's impact on a biological treatment system. These wastewater streams are similar to other blowdown streams currently processed in the existing Wastewater Treatment Plant (WWTP). Because these streams would have very low concentrations of pollutants, are readily treatable in the wastewater plant and would not significantly contribute to the wastewater plant loading, they would have an insignificant impact on the final effluent (E-002). The proposed estimate of 3 percent increase in total flow, coupled with the source of the increase coming from mostly cooling tower blowdown, suggests that an increase in mass pollutant loading, if any, would be less than significant.

D.2. As stated in the DEIR on page 4.9-8, "Outfall E-003 is used for storm water runoff from unimproved, non-process areas of the Refinery, and residential areas of Rodeo. This runoff is not treated by the wastewater treatment plant but combined with the non-contact salt cooling water." The Proposed Project will not increase the demand for saltwater cooling water and therefore will not result in a measurable increase of copper, nickel or zinc in Outfall E-003. Under the terms of the NPDES permit, the temperature of the effluent is monitored at Outfall E-003. There would be no increase in the thermal plume as a result of the Proposed Project. See also response ABJC-46.

ABJC-46

*The commenter asserts that the DEIR does not analyze or mitigate the cumulative impacts on aquatic life.*

RESPONSE: As discussed in the DEIR (p. 4.3-32 to 4.3-33) and elaborated in Response ABJC-45, the impairment of San Pablo Bay is primarily due to nonpoint and historic sources. In particular, this has been demonstrated for the

two pollutants to which the commenter draws special attention- selenium and mercury

As further discussed in the DEIR (p. 4.9-23 and 4.3-32) and again elaborated in Response ABJC-45, the Proposed Project will only result in unsubstantial increases, if any, of pollutant loading in the Refinery discharge. Additionally, the applicant is committed, by agreement with the RWQCB, to continued sampling with a focus on evaluating pre- and post-project sampling, to ensure that no significant increase in pollutant loading or violation of the existing NPDES permit limits occurs.

The commenter's view appears to be that any Project-related discharge must be considered a significant contributor because receiving waters are already impaired. In *CBE v. Resources Agency*, 103 Cal.App.4th 98, the court struck down a CEQA Guideline that would have created a "safe harbor" from cumulative impact analysis for projects with individually de minimis contributions to the cumulative impact, regardless of the cumulative effect. The court concluded that a project's contribution must be considered together with the contributions of other projects, in order to avoid the result that many individually de minimis contributions may add up to a significant impact. (See also *Kings County*, 221 Cal.App.3d at 692.) Still, the court cautioned against abuse of cumulative analyses: "This does not mean, however, that any additional effect in a nonattainment area for that effect necessarily creates a significant cumulative impact; the 'one additional molecule rule' is not the law." (*CBE v. Resources Agency*, 103 Cal.App.4th at 120.)

Under the thresholds of significance for biological impacts utilized in the DEIR (p. 4.3-28 and 4.3-29) and adopted from CEQA Guidelines Appendix G, an impact is considered significant if the effect is substantial (e.g., substantial effect on endangered, rare or threatened species or their habitat; a fish or wildlife population drops below self-sustaining levels, a plant or animal community is threatened with elimination, etc.). Based on the Refinery's continued compliance with NPDES permit limits together with the negligible contribution of all Refinery discharges to conditions in San Pablo Bay, it is reasonable to conclude that the Project's contribution does not exceed the thresholds of significance.

ABJC-47 *The commenter asserts that all potential odor impacts were not analyzed in the DEIR.*

RESPONSE: See Section 2.3, Master Response – Odor. Also note that the BAAQMD's official comments on the DEIR (see BAAQMD response letter, Section 3.3.1) did not request quantification of odorous compounds.

ABJC-48 *The commenter asserts that climate change must be addressed in the DEIR, and that the project has potential to impact global warming significantly.*

RESPONSE: See Section 2.2, Master Response – Greenhouse Gases.

ABJC-49 *The commenter asserts that the DEIR illegally segmented a large project into many little ones (also known as piecemealing), which is prohibited by CEQA.*

RESPONSE: Portions of this comment consist of the commenter citing CEQA case law regarding segmenting. Comments noted. Additionally, the commenter accuses the County of segmenting the Proposed Project into many smaller projects in order to “mask” the true environmental impacts.

The County disagrees. The commenter is expressing an opinion that cannot be substantiated. The Proposed Project is not segmented. See response ABJC-54 for a discussion of the projects that the commenter claims are part of the Proposed Project.

ABJC-50 *The commenter asserts that the impacts of increased demand for heavy gas oil due to the project must be analyzed.*

RESPONSE: Because the Refinery would no longer be selling HGO into the fuel oil market, but would instead be converting it to Ultra-Low Sulfur Diesel and cleaner burning gasoline, the commenter suggests that the DEIR must address how the market will adjust to the loss of production of HGO. As stated previously herein, one of the clear benefits of the Project is the increase in production of cleaner burning fuels without the need to increase crude consumption or transport. Where, how, and from whom current customers might replace the HGO that would be converted to cleaner fuels is far too speculative for analysis in the DEIR and is not required under CEQA. CEQA Guidelines, § 15145; *Laurel Heights Improvement Assn. v. Regents of the University of California (1988) 47 Cal.3d 376.*

ABJC-51 *The commenter asserts that the Impacts of the new substation and electrical utilities are not analyzed in the DEIR.*

RESPONSE: To clarify, there are two substations discussed and considered in the DEIR. One new substation is proposed to be constructed as part of the Proposed Project on ConocoPhillips property adjacent to the other (PG&E) existing substation located on PG&E property. These two are shown on Figure 3-3 of the DEIR and would be connected by two approximately 150-foot long transmission lines mostly located on ConocoPhillips property. The DEIR mentions the new substation on pages 3-33, and 4.5-11/12 as well as Figure 3-3. The physical effects of the construction of the proposed ConocoPhillips substation and interconnection lines between the existing PG&E substation and the proposed ConocoPhillips substation were encompassed in the impact analysis of the overall construction impacts for the Proposed Project presented in various DEIR sections such as 4.2 – Air Quality, 4.5 – Energy, 4.11 – Noise, and 4.13 –

Transportation. There were no specific significant environmental impacts resulting from construction or operation of the substation and interconnection between the substations. At the existing PG&E substation, the work required as described in the commenter's Exhibit F involves modifications to existing structures and has no associated environmental impacts. As Exhibit F indicates, PG&E is subject to regulation by the California Public Utilities Commission under General Order 131D.

ABJC-52 *The commenter asserts that the analysis of impacts from the increase in throughput capacity of crude by 36% was left out of the DEIR.*

RESPONSE: The proposed Project would not increase the throughput of crude. See response ABJC-53 and -54.

ABJC-53 *The commenter asserts that piecemealed projects debottleneck capacity of certain key units. The commenter asserts that some modifications to the plant seemed to have been approved without a formal public notice or comment period.*

RESPONSE: See response ABJC-49 and ABJC-54.

ABJC-54 *The commenter asserts that the DEIR did not analyze the impacts of increased throughput at the crude unit, prefractionator, uncracker, and reformer. Also they commented that the impacts of increasing the refinery's gasoline throughput limit were not analyzed in the DEIR.*

RESPONSE: This comment builds on comment ABJC-49, where the commenter accuses the County of segmenting the Proposed Project in order to "mask" its environmental impacts. The commenter's assertion has no merit.

CEQA review is only required for projects that are subject to discretionary review. The permits that the commenter cites were issued by the BAAQMD, not the County. Of the projects described in those permits, only the ULSD project, which was approved in December 2003, was subject to a discretionary review by the County. The County prepared and certified an EIR for that project. Since then, the Refinery has implemented several projects that only required a ministerial approval from the County. The County had no cause to conduct a CEQA review on these projects or to deny them.

- BAAQMD Application 5841 – ULSD: This project affected the Refinery's crude and coking units and was approved by the County in December 2003 – 1½ years prior to ConocoPhillips submitting its land use permit application for the Proposed Project. The County prepared and certified an EIR for the ULSD project. The process changes that led up to the installation of the ULSD unit were discussed at length in that EIR. The EIR included

information about other known projects that were in progress at the Refinery at the time. Piecemealing (sometimes called segmenting) occurs when a project is broken up into small parts in order to avoid disclosure of its environmental impacts and/or to avoid preparation of an EIR. Piecemealing cannot occur if each project has its own environmental impact report *Bozung v. Local Agency Formation Commission (1975)* 13 Cal.3d 263.

- Application 9060 – Units U-240 and U-244: This project did not require discretionary approval by the County. This application proposed increased feed to Unit 240. There were no emission increases related to this project. The new permit limits resulting from the application were not used in determining the baseline for the Proposed Project. Actual emissions used in the baseline calculation were lower than the pre-application permit limits.
- Application 10332- U-230: This project did not require discretionary approval by the County. The comment incorrectly describes this application as an increase at the U-240 Pre-Fractionator. The application involved a throughput increase for the U-230 Hydrotreater, not the U-240 Pre-Fractionator. U-230 does not receive feed from U-240, nor would it from the Proposed Project. There were no emission increases related to this application.
- Application 10115 – U-76: This project did not require discretionary approval by the County. This application involved the gasoline blending unit. There were no emission increases related to this permit application; it was a modification to an existing BAAQMD permit condition with no physical changes.
- Application 12999 U-267: This project did not require discretionary approval by the County. This application did not involve any physical modifications. The permit modification did not involve raising limits on any associated heaters or downstream process units. The throughput increase was not included in the baseline calculations for the Proposed Project. As with all of the above applications, this application was considered in the DEIR's Cumulative Impacts Analysis for the Proposed Project.

The commenter's assertion necessarily relies upon the erroneous notion that the County was aware that the Proposed Project was on the horizon yet approved some of its required components anyway. The commenter cites projects whose approvals date back to 2003 and claims that these projects are somehow linked to the Proposed Project. None of the past activities referenced by the commenter have any relationship to the Proposed Project with respect to the County's discretionary review and approval authority. They are in no way dependent on or an enhancement to the Proposed Project. Only one of the applications associated with the referenced past activities involved a discretionary permit and an EIR

was prepared for that project. An EIR is being conducted for the Proposed Project and all of the activities referenced by the commenter are considered in the Cumulative Impacts Analysis contained in Section 5.2 of the DEIR (See DEIR, Table 5-1). Clearly, the commenter's assertion is baseless.

ABJC-55 *The commenter asserts that the future impacts of excess capacity at the Refinery and the Hydrogen Plant is not analyzed in the DEIR.*

RESPONSE: See response ABJC-73.

ABJC-56 *The commenter asserts that the mitigation measures for each impact are not effective.*

RESPONSE: This comment provides a legal interpretation of applicable CEQA requirements. See Section 2.7, Master Response – Mitigation Measures. Any issues requiring a response are addressed above and in responses ABJC-57 thru ABJC-65.

ABJC-57 *The commenter asserts that the mitigation for VOC emissions are not effective, and that the supporting evidence that the DAF vents and channels have a 100% capture efficiency is lacking.*

RESPONSE: Comments ABJC-57 and ABJC-58 challenge the baseline used for emissions and the efficiency of emission reductions (capture and destruction of emissions) for the Dissolved Air Flotation (DAF) unit.

The baseline used to calculate the emission reductions was the average of two source tests conducted by the BAAQMD. The test results were similar and the BAAQMD determined that the average of the two source tests should be used. This is a reasonable and appropriate approach for this analysis. Refer also to Section 2.5, Master Response – Baselines.

The DAF unit is entirely enclosed with a sealed roof and gasketed hatches. The only openings are four vent stacks (one on each of the DAF cells). The vents would be directed into piping and routed to the control device (thermal oxidizer). Because the DAF and the control system are completely enclosed, 100% of the vapors now exiting the four vents would be captured. Fugitive leaks that could occur were not included in the emission reduction estimate.

The DAF outlet channels and associated pump sumps would be covered with solid lids and caulked or gasketed to provide a tight seal. The channels would then be vented to the control device through piping. It is expected that 100% of these vapors would be collected and routed to the control device. Fugitive emissions from the channel are expected to be non-existent because the blower would draw the vapor from the DAF through the vent piping under slightly negative air pressure; as long as the blower is operating, any leaks in the lids or

pipng would only allow air to flow into the system, rather than allow vapors to flow out into the atmosphere.

The BAAQMD, in its proposed permit condition requirements, has set the control device efficiency at 98%. Additionally, the BAAQMD is only allowing for seven days of downtime per year for startup/shutdown and maintenance. The estimated emission reduction credits have been reduced to account for these seven days. The reduction amounts to 0.8 tons per year and does not alter the existing air quality analysis. Additionally, the BAAQMD is requiring that source testing be conducted after startup to confirm these emission reductions.

ABJC-58 *The commenter stated that there is no evidence supporting the baseline, or that the thermal oxidizer would operate at 98% control efficiency.*

RESPONSE: The response to this comment is combined with the response to comment ABJC-57, above. Refer also to Section 2.5, Master Response – Baselines.

ABJC-59 *The commenter asserts that the mitigations for NO<sub>x</sub> are not effective and show no evidence of being effective. The commenter also asserts that there is a lack of evidence that ROG offsets can be mitigation for NO<sub>x</sub>.*

RESPONSE: First the commenter wrongly asserts that the Refinery Steam Power Plant modifications for NO<sub>x</sub> reductions occurred before the Project and therefore cannot be used as mitigation under CEQA. While ConocoPhillips has obtained a permit (BAAQMD Application Number 14208) to make changes at its Steam Power Plant, those changes do not result in the reduction of any emissions from the Plant. The proposed emission reductions referenced in the DEIR (BAAQMD Application Number 13424) would not occur until additional catalyst and operational changes are made at the time of Proposed Project start-up. Clearly, the prior BAAQMD Permit #14208 and the emissions reductions proposed are separate and distinct.

The commenter's assertion that the Refinery Steam Power Plant modification is 'needed to bring the Refinery into compliance with its Title V Operating Permit limits' is also incorrect. The limits for NO<sub>x</sub> emissions contained in Table VII-Q1 of the Refinery's Title V Permit reference Permit Condition No. 12122, Part 9. The Permit Condition reads as follows: 9a. The combined NO<sub>x</sub> emissions from S352, S353, S354, S355, S356, and S357 shall not exceed 66 lb/hr (averaged over any 3-hour period), nor 167 tons in any consecutive 365-day period. NO<sub>x</sub> emissions from each turbine/duct burner set shall not exceed 528 lb/day. For the data shown in Exhibit 11 of the relevant comments, each turbine/duct burner was in compliance with the 528 lb/day limit as shown in Table ABJC-59-1 below.

**TABLE ABJC-59 -1**  
**TURBINE / DUCT BURNER NO<sub>x</sub> EMISSIONS**

Turbine/Duct Burner Set	Daily Maximum (lb/day)	Daily Average (lb/day)
A	261	192
B	286	188
C	265	179

The proposed permit limit would be adequate to ensure actual NO<sub>x</sub> emissions reductions will be at least 22.1 tons per year (updated from previously proposed reduction of 14.7 tons per year, stated in the DEIR). A lower permit limit, providing more NO<sub>x</sub> emission reduction from the Steam Power Plant was agreed to with BAAQMD, as BAAQMD finalized its review of Application #13424 for this Proposed Project. With respect to permit compliance monitoring, BAAQMD, as the permitting agency, would establish monitoring conditions.

Included in the comment were questions related to the effectiveness and the enforceability of the mitigation measure and to the offset ratios used.

As stated previously, all mitigation measures proposed for adoption would be enforceable, as each would be included as a condition in the Land Use Permit to be issued by the County and all measures related to the mitigation of operational air quality impacts would 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. See Section 2.7, Master Response – Mitigations.

This comment also references and challenges offset ratios used for the NO<sub>x</sub> emission reductions. In the Bay Area Air Basin, it is appropriate to offset NO<sub>x</sub> emissions with ROG emissions. BAAQMD Rule 2, Section 302.2 states that

“emission reduction credits of precursor organic compounds may be used to offset increased emissions of nitrogen oxides at the offset ratio specified in Section 2-2-302, provided that the PSD requirements of Section 2-2-304, if applicable, are met.”

The DEIR has demonstrated that the PSD requirements of Section 2-2-304 have been met. Consequently, the ROG contemporaneous reductions from the DAF, which were determined per BAAQMD Rule 2, Section 2-2-605, can be used to offset the NO<sub>x</sub> emissions increases that are part of the Proposed Project per BAAQMD Rule 2, Section 2-2-302.

Additionally, while the DAF reductions are onsite contemporaneous emission reduction credits that have been generated in accordance with BAAQMD Section 2-2-605, the commenter refers to BAAQMD Rule 2, Section 2-2-302, which

requires an offset ratio of 1.15:1 for facilities with annual emissions greater than 35 tons. However BAAQMD Rule 2, Section 2-2-302 states that for facilities with emissions of 35 tons per year or more:

“federally enforceable emission offsets shall be provided, for the emission from the new or modified source and any pre-existing cumulative increase, **minus** any onsite contemporaneous emission reduction credits determined in accordance with Section 2-2-6-5.”

Thus offset triggers and quantities for a new or modified source are determined after subtracting any onsite contemporaneous reduction credits. Consequently, the onsite contemporaneous emission reduction credits are effectively and correctly used at a 1:1 offset ratio in accordance with the BAAQMD rules.

The DEIR has demonstrated that the DAF emission reductions are achievable and the BAAQMD permit conditions that will be imposed on the Refinery DAF will ensure that the emission reductions are real. Therefore, the proposed onsite contemporaneous emission reduction credits are available and will be used as mitigation for the Proposed Project.

PM<sub>10</sub> and secondary pollutant formation have been addressed in the DEIR. The DEIR has demonstrated that potential particulate emission reductions have been appropriately mitigated. The commenter speculates that the use of NO<sub>x</sub> emission reductions rather than ROG emissions reductions could potentially further reduce secondary particulate formation by reducing the availability of nitrate compounds. The chemistry of secondary particulate formation is complex and dependent on multiple environmental parameters and conditions at the time of the release of NO<sub>x</sub>. Therefore, potential for reduced secondary particulate formation from nitrate compounds is speculative. The benefit of reducing ROG emissions as a precursor to ozone formation is evident and allowed in exchange for NO<sub>x</sub> emission reductions by BAAQMD. The DEIR has proposed adequate enforceable mitigation for both NO<sub>x</sub> and PM<sub>10</sub> and no further air pollutant emissions mitigation measures are required.

See also response ABJC-32 for a discussion of secondary particulate formation from combustion sources.

ABJC-60

*The commenter stated that the PM<sub>10</sub> mitigation is not effective and that there is no evidence stating that carbon plant modifications would be effective.*

RESPONSE: The commenter asserts that the DEIR lacks evidence to verify the ability to achieve the proposed emission reductions at the Carbon Plant. The following is provided to clarify the way in which that reduction would occur.

Sodium bicarbonate is added to the flue gas of the Carbon Plant calciner (K-2 kiln) to reduce SO<sub>2</sub> emissions by the reaction between the bicarbonate and the hot sulfur gases. The SO<sub>2</sub> emissions from the kiln are measured by continuous emission monitoring and reductions would be demonstrated by these measurements. The resulting particulate emissions are captured by an existing baghouse filtration system. The addition of bicarbonate would not increase PM<sub>10</sub> emissions from the K-2 kiln for the following reasons:

1. The BAAQMD (as requested in ConocoPhillips' application 15328 for SO<sub>2</sub> and PM<sub>10</sub> emission reduction credits) would place an annual emission limit on the kiln that would be a reduction from the kiln's existing or baseline emissions. The three-year baseline emissions were 37.4 tons per year of PM<sub>10</sub> and 791 tons per year of SO<sub>2</sub> from kiln K-2. Thereafter, operation of the kiln must be conducted so that emissions stay below the revised annual limit effectively prohibiting any increase in PM<sub>10</sub> emissions above the reduced annual baseline. The new limit will be 29.4 tons per year PM<sub>10</sub> (8 ton reduction) and 749 tons per year SO<sub>2</sub> (a 42 ton reduction).
2. The bicarbonate injection facilities at the Carbon Plant would be modified to improve the effectiveness and efficiency of bicarbonate mixing with the flue gas. These improvements would reduce the demand for bicarbonate to achieve equivalent reductions in SO<sub>2</sub>. Based on engineering calculations, the amount of sodium bicarbonate needed for SO<sub>2</sub> control is 2.6 pounds of sodium bicarbonate for every pound of SO<sub>2</sub> removed. Due to the equipment currently installed at the Carbon Plant, the operation uses approximately 5 lbs of sodium bicarbonate for every pound of SO<sub>2</sub> removed. Thus, the operation is currently using 2 times the theoretical amount of sodium bicarbonate necessary for SO<sub>2</sub> removal. To achieve a reduction of an additional 42 tons/year of SO<sub>2</sub> (9.6 lb/hr), an improvement of 10-15 % efficiency in the improved injection facilities would achieve the targeted reduction of 42 tons/year of SO<sub>2</sub> and would result in no net increase in bicarbonate use. There accordingly would be no additional truck trips associated with increased bicarbonate usage, either for supply or disposal.
3. PM<sub>10</sub> reductions will be achieved through new baghouse technology. Manufacturer literature indicates that the new baghouse technology will be "generally 99.995% efficient at one micron or larger." Therefore, the new baghouse technology will control close to 100% of the particulate matter that would be emitted.

ABJC-61

*The commenter stated that secondary environmental impacts from the mitigation were not analyzed in the DEIR.*

**RESPONSE:** The commenter is incorrect in their assertions that secondary impacts resulting from modifications to the carbon plant were not analyzed. As

stated in response ABJC-60 above, no additional sodium bicarbonate would be needed to achieve the additional 42 ton per year SO<sub>2</sub> reduction and thus no increase in truck trips or generated waste would occur.

ABJC-62 *The commenter stated that additional feasible fugitive dust mitigation measures are available, thus the DEIR violates CEQA guidelines by failing to include them or explain why they were not included.*

RESPONSE: The County is not obligated to require every available mitigation measure. The whole of the additional mitigation measures proposed by the commenter are not being adopted because other mitigations already identified would reduce impacts to less-than-significant levels. See Section 2.6, Master Response – Construction-Related Effects, where individual mitigation measures are discussed. Also see Section 2.7, Master Response – Mitigation Measures, for a discussion of the County’s obligation to adopt mitigations.

ABJC-63 *The commenter stated that additional feasible mobile source emission construction mitigation measures are available, thus the DEIR violates CEQA guidelines by failing to include them.*

RESPONSE: The County is not obligated to require every available mitigation measure. The County has included all mitigation measures requested by BAAQMD. See Section 2.6, Master Response – Construction-Related Effects, and Section 2.7, Mitigation Measures.

ABJC-64 *The commenter stated that ROG emissions would result from painting and asphalt laying activities and that mitigation measures are available to reduce such emissions.*

RESPONSE: See Section 2.6, Master Response – Construction-Related Effects and Section 2.7, Master Response – Mitigation Measures. The County would require use of low-VOC materials as a condition of approval.

ABJC-65 *The commenter asserts that mitigation measures in the DEIR are ineffective or unenforceable, which violates CEQA guidelines.*

RESPONSE: This comment questions the efficacy of certain listed mitigation measures imposed to minimize construction emissions. The County has revised the wording of these mitigation measures, with the following exception:

- Carpools. The County cannot require contractors’ employees to carpool, which is why the mitigation says “encourage.”

See Section 2.6, Master Response – Construction-Related Effects for a discussion of construction mitigation measures and Section 2.7, Master Response –

Mitigation Measures for a discussion of the County's obligation to mitigate impacts.

ABJC-66 *The commenter asserts that cumulative air quality impacts were illegally ignored.*

RESPONSE: In part A of the comment, the commenter provides several pages of CEQA and case law citations about the nature of a CEQA cumulative impacts analysis. Comments noted.

The commenter asserts that the DEIR's reliance on plans (in this case the BAAQMD air plan and the County's General Plan) is not supported by substantial evidence. This is not the case. All Proposed Project impacts are either less than significant or fully mitigated in the DEIR. The DEIR also finds, on page 4.10-12 that:

“The Refinery property is mainly designated Heavy Industry in the Contra Costa General Plan and Heavy Industrial (H-I) on the Zoning Map. Heavy industrial uses are permitted by right under the H-I zoning, but a Land Use Permit is required for all projects involving the use and/or transport of large quantities of hazardous materials. The Proposed Project would be consistent with the uses designated for the site by the Contra Costa General Plan, would not conflict with any applicable County land use plans and policies and would be contained within the County ULL. The Proposed Project would also be consistent with the land uses identified in the BCDC Bay Plan. Therefore potential environmental impacts associated with Contra Costa County planning policies, zoning, and growth management, and with the Bay Plan adopted for the purpose of avoiding or mitigating environmental effects would be less than significant.”

In the same remark, the commenter further mentions on page 2-19 (and 4.10-12), the DEIR's inconsistencies between construction and operation of the Proposed Project. This statement, part of the text of the impact for Land Use, was intended to acknowledge that short-term impacts during construction could result in temporary inconsistencies between plans. During operation of the Proposed Project, the DEIR found no such inconsistencies (which are the real intent of evaluating the consistencies between plans for the operation of a project), but that during construction it would be possible that for short periods some inconsistencies between plans could occur. Specifically this reference was related to air quality impacts from construction activities such as fugitive dust and / or tailpipe emissions from construction vehicles. Such temporary activities have the potential for short-term inconsistencies. However, the BAAQMD air plan does consider such construction impacts for the air basin. As discussed in Section

4.2.4 of the DEIR and as modified in this EIR, an array of BAAQMD-suggested mitigation measures have been applied to the Proposed Project to fully mitigate potential construction-related air quality impacts. Regardless, the DEIR statement is that the potential exists for inconsistencies but the analysis found no such inconsistencies.

On page 60 of the comment, the commenter incorrectly asserts that the offset ratio for ROG to NO<sub>x</sub> is wrong. This particular issue is addressed in detail in response ABJC-59.

Furthermore, in terms of compliance with BAAQMD plans, the BAAQMD issued the draft Air Permit for the Proposed Project for public review on March 15, 2007.

Section 5.2 of the DEIR does provide an analysis of all known past, present and reasonably foreseeable future projects within the locale of the Refinery. This analysis included consideration of all related plans both local and regional. The commenter expresses particular concern over ozone precursors. The BAAQMD is the agency with clear authority to address in a specific and cumulative sense ambient air quality in the air basin and the BAAQMD's current air plan is very focused on controlling ozone in the Bay Area (BAAQMD, 2005 *Ozone Strategy*). As noted above, the draft air permit for the Proposed Project has been released for review on March 15, 2007 by the BAAQMD. This in itself is an indication that the Proposed Project, as proposed to be permitted by the BAAQMD, is in compliance with the air plan. Cumulative impacts of the Proposed Project are summarized on page 25 of the BAAQMD Permit Application's Engineering Report (BAAQMD, 2007). The BAAQMD Engineering Report shows that, with the exception for SO<sub>2</sub> and PM<sub>10</sub> all criteria pollutant emissions requiring offsets for the Proposed Project are less than current emissions. The BAAQMD has applied draft permit condition 22970-B.1 which requires ConocoPhillips to find and report offsets for SO<sub>2</sub> and PM<sub>10</sub> to the BAAQMD such that these emissions are offset as well. Although this draft permit release occurred after the publication of the DEIR, prepares of the DEIR had coordinated with the BAAQMD to ensure that air emission and mitigations were related to BAAQMD permit approval for the Proposed Project.

Thus, the cumulative impacts analysis is adequate and supports the DEIR's findings of no significant impacts for the Proposed Project.

#### REFERENCE

(BAAQMD, 2007). Bay Area Air Quality Management District, 2007, *Proposed Bay Area Air Quality Management District Engineering Evaluation ConocoPhillips San Francisco Refinery; Plant 16 Application No. 13424*, [http://www.baaqmd.gov/pmt/public\\_notices/2007/13424/A0016\\_nsr\\_13424\\_eval\\_031507.pdf](http://www.baaqmd.gov/pmt/public_notices/2007/13424/A0016_nsr_13424_eval_031507.pdf), accessed March 18, 2007.

ABJC-67 *The commenter asserts that the DEIR is inadequate and must be revised and recirculated for public review.*

RESPONSE: The commenter is stating an opinion. There is no basis in CEQA for the DEIR to be recirculated. See Section 2.1, Master Response – Recirculation.

ABJC-68 *The commenter asserts that the DEIR fails to satisfy CEQA’s fundamental mandates of informing decision makers and the public of the potentially significant impacts of a project and imposing all feasible measures to mitigate those impacts. The commenter asserts that the DEIR should be revised and recirculated.*

RESPONSE: The commenter is again stating an opinion. There is no basis in CEQA for the DEIR to be recirculated. See Section 2.1, Master Response – Recirculation.

ABJC-69 *The commenter provided background on the Proposed Project.*

RESPONSE: The comment does not question the adequacy or contents of the EIR and therefore does not require a response under CEQA Guidelines.

ABJC-70 *The commenter asserts that DEIR fails to adequately characterize and mitigate the Project’s construction and operational impacts on air quality, public health and safety, and water quality, and fails to analyze the effect on climate change. “The DEIR presents inaccurate data, omits key information, draws unsupported conclusions and fails to recommend adequate realistic and enforceable mitigation measures, all of which serve to minimize or obscure the true environmental impacts of the Proposed Project. These shortcomings are discussed in detail in the following comments.”*

RESPONSE: The statements about the adequacy of mitigations are too general to provide a response here. Specific statements are repeated later in comments ABJC-71 through ABJC-112, and County responses are provided following each.

ABJC-71 *The commenter asserts that the project cannot be broken up into sections (piecemealed) under CEQA guidelines, and that the modifications made in the past few years must be evaluated as part of the clean fuels project.*

RESPONSE: See responses ABJC-49 and ABJC-54.

ABJC-72 *The commenter describes previous modifications to the Refinery that “were needed” in order to start the clean fuels project. The claim is made that all of these changes were “necessary to allow for the proposed post-CFEP production increase of 30% over current Refinery production levels.” The commenter*

*asserts that the Proposed Project would “debottleneck” the current throughput constraints on the reformer and Unisar.*

RESPONSE: See response ABJC-54.

ABJC-73 *The commenter asserts that the project Hydrogen Plant was designed with excess capacity to allow future increased production, and that potential impacts associated with the surplus should be included in the document.*

RESPONSE: The comment states that the DEIR did not analyze the Hydrogen Plant when operating at full capacity. This is incorrect. The DEIR analyzes the Proposed Project’s operational impacts assuming full capacity of all units included within the Proposed Project. The maximum capacity of 120 million SCF per day of hydrogen was used to calculate emissions, energy usage, and water demand. While the design capacity of Unit-244 changed from 26,000 barrels per day to 18,500 barrels per day, the reduction would not affect the ability to run the Proposed Project at capacity. The Proposed Project is not impermissibly piecemealed as suggested by the commenter.

The June 30, 2005, letter referenced by the commenter (as their Exhibit 2) does not support the position that ConocoPhillips was or is planning to deliver excess volumes of hydrogen to anyone at any time. The letter was prepared prior to ConocoPhillips’ decision on whether to construct the Hydrogen Plant onsite or to potentially transport hydrogen to the Refinery via pipeline. Subsequent to the letter, and as described in the DEIR, the decision was made to construct the Hydrogen Plant onsite. ConocoPhillips is not a hydrogen pipeline project proponent; however, it is aware that there are at least four competing proposals by hydrogen production companies to connect all or some of the Bay Area refineries with a hydrogen pipeline, for potential export and/or import of hydrogen to and from such refineries.

After the County issued the DEIR, it received an application from Praxair for a pipeline between Richmond (the Chevron Refinery) and Martinez (the Shell Refinery). While the application also mentions a pipeline to the ConocoPhillips Rodeo refinery, there is no contractual commitment of any kind between ConocoPhillips and Praxair (or Praxair and Air Liquide). Any hydrogen pipeline project would be subject to its own CEQA analysis and is not part of the activity proposed for approval in this Proposed Project.

ABJC-74 *The commenter stated that supporting documentation was not provided by the EIR.*

RESPONSE: See responses ABJC-5 and ABJC-18 and the Appendix.

ABJC-75 *The commenter states to be troubled that there were a number of different values found for the export of gas oil and fuels via marine barges and pipelines. “Because the DEIR calculates emissions for post-Project transportation of materials and takes credit for emissions reductions from reduced transportation of materials, it is crucial to use correct values.”*

RESPONSE: See response ABJC-19.

ABJC-76 *The commenter asserts that they requested technical support documents and did not receive emissions, energy, or utilities estimates.*

RESPONSE: See responses ABJC-5 and ABJC-18.

ABJC-77 *The commenter states that the DEIR did not include PM<sub>2.5</sub> emissions estimates for project construction or operations.*

RESPONSE: The commenter is correct.

Significance thresholds for PM<sub>2.5</sub> emissions have not been developed or incorporated into the BAAQMD CEQA Guidelines and are not otherwise established. Methods for predicting the formation of ammonium sulfate, ammonium nitrate and thus secondary PM<sub>2.5</sub> are also not well-developed. The DEIR has disclosed and addressed the Project’s criteria pollutant PM<sub>10</sub> emissions (which includes primary PM<sub>2.5</sub> emissions as a subset), NO<sub>x</sub> emissions, SO<sub>2</sub> emissions, and ROG emissions. As demonstrated in Chapter 4.2 of the DEIR, the Proposed Project’s criteria pollutant emissions have been quantified and are mitigated by the Project to less-than-significant levels, which also reduces the potential for formation of secondary contaminants including secondary particulate to less than significant levels.

Even if an estimate of PM<sub>2.5</sub> emissions from these sources could be developed, a relevant standard for determination of significance is not currently available and a reasoned analysis and conclusion as to significance is not possible. In such circumstances, the CEQA Guidelines 15145 state that the lead agency “should note its conclusion and terminate discussion of the impact.”

See Section 2.6, Master Response – Construction-Related Effects, for discussions of construction emissions, health risk and mitigation measures. See also responses GNAC-1 through GNAC-5 for further discussions about construction and operational emissions of particulates. Also see response ABJC-32.

ABJC-78 *The commenter provided a general summary of air pollutant sources typically associated with construction activities.*

RESPONSE: The comment does not question the adequacy or contents of the EIR and therefore does not require a response under CEQA Guidelines.

ABJC-79 *The commenter stated that the DEIR did not provide quantitative emissions estimates for construction activities and that there is no assurance that the proposed mitigations will reduce impacts to less-than-significant levels. The commenter references the court case Kings County Farm Bureau v. City of Hanford to support this conclusion.*

RESPONSE: The DEIR's analysis of construction impacts is adequate. See Section 2.6, Master Response – Construction-Related Effects and response ABJC-36.

ABJC-80 *The commenter stated that a detailed quantification of construction emissions should have been estimated instead of the implementation of effective and comprehensive control measures. The commenter indicated that the DEIR misinterprets the BAAQMD's recommended approach to the assessment of construction impacts, which are contained in the BAAQMD's CEQA Guidelines. In addition, the commenter references BAAQMD staff comments on the administrative DEIR regarding the quantification of construction emissions.*

RESPONSE: For responses related to the interpretation of BAAQMD's CEQA Guidelines related to the assessment of construction impacts, see Section 2.6, Master Response – Construction-Related Effects and response ABJC-37.

ABJC-81 *The commenter stated that the County has not evaluated site-specific impacts.*

RESPONSE: For responses related to the County's assessment of construction impacts specifically related to the quantification of emissions, see Section 2.6, Master Response – Construction-Related Effects. See response ABJC-38 regarding the comment on site specific construction analysis.

ABJC-82 *The commenter indicates that her own analysis of air quality impacts shows that significant construction related impacts would result and that the mitigation measures presented in the DEIR are inadequate to reduce the impacts to less than significant levels.*

RESPONSE: The comment is an introductory paragraph to the commenter's specific comments regarding her own analysis. See Section 2.6, Master Response – Construction-Related Effects and responses ABJC-83 thru -87 below.

ABJC-83 *The commenter describes her methodology using diesel consumption numbers obtained from the DEIR to estimate daily emissions associated with diesel construction equipment. The commenter compared her emission estimates with construction thresholds of significance from another air district and operational thresholds of significance from the BAAQMD to conclude that the construction of the Proposed Project would result in significant impacts. The commenter also*

*indicates that the mitigation measures that include the language “when feasible” are not enforceable.*

RESPONSE: See Section 2.6, Master Response - Construction-Related Effects related to construction emission thresholds for the Proposed Project.

In Mitigation Measure 4.2-1b, DEIR page 4.2-25, four of the nine bullet items are modified as follows:

- Use ~~(where feasible)~~ alternative fueled equipment (such as ULSD, Compressed Natural Gas (CNG), biodiesel, water emulsion fuel, and electric). ~~Provide the County with documentation that a good faith effort to use alternative fueled equipment was conducted if it is determined that its use is not feasible.~~
- Use on-site power ~~when feasible~~ to reduce reliance on portable generators.
- Use add-on control devices ~~(where feasible)~~ such as diesel oxidation catalysts or particulate filters.
- Diesel portable generators less than 50 horsepower shall not be allowed at the construction site, except for those used by welders.<sup>1</sup>

ABJC-84

*The commenter describes her methodology used to estimate daily emissions associated with fugitive dust. The commenter again compared her emission estimates with construction thresholds of significance from another air district and operational thresholds of significance from the BAAQMD to conclude that the construction of the Proposed Project would result in significant impacts related to fugitive dust.*

RESPONSE: Subsequent to the release of the DEIR, the BAAQMD reviewed the document and provided the County with its official comments, general and specific, on the published DEIR (see Comment Letter BAAQMD). None of the BAAQMD’s official comments on the DEIR requested the quantification of Proposed Project construction emissions or indicated that the methodology employed in preparing the DEIR was faulty. See BAAQMD response letter, Section 3.3.1.

See also Section 2.6, Master Response – Construction-Related Effects related to construction emission thresholds for the Proposed Project, and response ABJC-25.

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<sup>1</sup> Welding trucks have self-contained units with generators less than 50 horsepower.

ABJC-85 *The commenter provided a conclusion summary reiterating her comments related to the DEIR's construction impact analysis.*

RESPONSE: The comment does not add any new points that the commenter had not previously noted. See responses ABJC-41, ABJC-83 and ABJC-84, above. In addition, air quality effects from construction are also discussed in Section 2.6, Master Response – Construction-Related Effects, as well as in a number of other responses, such as BAAQMD-11 through BAAQMD-15.

ABJC-86 *The commenter identified two specific BAAQMD fugitive dust mitigation measures to include in the enhanced dust control program in Mitigation Measure 4.2-1a, presented on DEIR page 4.2-25. In addition, the commenter recommends including several other specific mitigation measures that have been used to reduce fugitive dust emissions in southern California and Clark County Nevada.*

RESPONSE: See Section 2.6, Master Response – Construction-Related Effects, Section 2.7, Master Response – Mitigation Measures, and responses BAAQMD-11 and BAAQMD-12.

ABJC-87 *The commenter stated that additional mitigation measures for construction mobile sources of exhaust are needed, including requiring the use of best practices in construction management and the use of new or newer equipment. The commenter included a list of several fuel types and technology approaches that can be used as mitigation.*

RESPONSE: As described in Section 2.6, Master Response – Construction-Related Effects, BAAQMD has included estimates of construction vehicle emissions from projected development in its regional air quality plans so it does not expect temporary construction emissions from any individual project to impede attainment (BAAQMD CEQA Guidelines). Therefore, BAAQMD, as a general matter does not require quantification of construction emissions. More importantly, BAAQMD does not consider construction vehicle emissions to be significant if the recommended CEQA Guidelines mitigation measures are imposed in order to reduce emissions from construction equipment exhaust (BAAQMD CEQA Guidelines, page 53).

DEIR Mitigation Measure 4.2-1b includes most of these measures (e.g., maintaining well-tuned equipment, use diesel trucks which are post-1996, and minimize idling time to three minutes), as well as a measure not included in the BAAQMD's recommended list (encouraging commuting workers to carpool or use other means to reduce trip generation). The commenter also recommends that the County require mitigation specifying the use of low-ROG materials during construction; however, the use of low-ROG materials is consistent with regulations currently required by BAAQMD rules. These rules address requirements for manufacturers of the materials, as well as users of the products.

There is nothing about this Project that would create the need to deviate from BAAQMD's suggested approach to finding that construction related emissions will be less than significant.

ABJC-88 *The commenter asserts in this introductory comment that the DEIR used faulty assumptions to estimate emissions caused by the Proposed Project in operation.*

RESPONSE: See response ABJC-24.

ABJC-89 *The commenter stated that the improper baseline was used and that prior modifications should be considered.*

RESPONSE: Refer to Section 2.5, Master Response - Baselines.

ABJC-90 *The commenter stated that emissions from fugitive dust are underestimated and should be revised to reflect the 22 new employee commuter trips as well as the truck trips and to reflect site-specific values.*

RESPONSE: See response ABJC-25.

ABJC-91 *The commenter asserts that the number of truck trips used to calculate emissions in the DEIR did not include those required to deliver liquid oxygen.*

RESPONSE: See response ABJC-27.

ABJC-92 *The commenter stated that some emission sources, including the cooling tower, increased firing of existing heaters, butane loading rack, and formation of secondary particulate matter, were not included in the DEIR.*

RESPONSE: The comment is an introductory paragraph to the commenter's specific comments regarding her conclusion that some emissions sources were not accounted for in the DEIR. See response ABJC-28.

ABJC-93 *The commenter asserts that the cooling tower emissions should be included in the DEIR despite BAAQMD Rule 2-1-128.4.*

RESPONSE: See response ABJC-29.

ABJC-94 *The commenter asserts that the butane loading rack emissions should be included in the DEIR despite BAAQMD Rule 2-1-123.1.*

RESPONSE: See response ABJC-30.

ABJC-95 *The commenter asserts that emissions were left out of the DEIR from increased on-site traffic.*

RESPONSE: See response ABJC-31.

- ABJC-96 *The commenter asserts that secondary particulate matter from combustion was left out of the DEIR.*
- RESPONSE: See response ABJC-32.
- ABJC-97 *The commenter asserts that emissions from the use of PG&E energy were omitted from the document.*
- RESPONSE: See response ABJC-33.
- ABJC-98 *The commenter asserts that the operational emission reduction mitigation measures are unsupported or overestimated.*
- RESPONSE: The comment is an introductory paragraph to the commenter's specific comments regarding her conclusion that the operational mitigation measures are inadequate. See responses ABJC-99 thru -103 for responses related to these specific comments.
- ABJC-99 *The commenter asserts that there is no evidence that dissolved air flotation vents have 100% efficiency, and calculations are unrealistic, thus the mitigation is inadequate.*
- RESPONSE: See response ABJC-57.
- ABJC-100 *The commenter asserts that the reduction of ROG emissions does not reduce NO<sub>x</sub> emissions.*
- RESPONSE: See response ABJC-59.
- ABJC-101 *The commenter asserts that reductions of NO<sub>x</sub> emissions at the steam power plant to offset NO<sub>x</sub> emissions from Project operations are unacceptable. There was already a partial modification and that the modification is needed to bring the Refinery into Title V Operating Permit Limit compliance.*
- RESPONSE: See response ABJC-59.
- ABJC-102 *The commenter asserts that plans to reduce emissions at the carbon plant to offset Project emissions of SO<sub>2</sub> and PM<sub>10</sub> are not valid CEQA mitigations. Also commented on was that no discussion of potential secondary impacts of carbon plant modifications were included.*
- RESPONSE: See response ABJC-60 and -61.
- ABJC-103 *The commenter states that offsetting NO<sub>x</sub> emissions with ROG emissions credits is questionable and that there are other feasible mitigations available.*
- RESPONSE: See response ABJC-59.

ABJC-104 *The commenter asserts that greenhouse gas emissions were left out of the DEIR.*

RESPONSE: Calculations of overall greenhouse gas emissions for the Refinery and for the Proposed Project, as well as a discussion of the regulatory context for evaluating the impact of those emissions are presented in Section 2.2, Master Response – Greenhouse Gases.

ABJC-105 *The commenter asserts that cumulative air quality impacts were not analyzed.*

RESPONSE: See response ABJC-66.

ABJC-106 *The commenter relayed information dealing with the nature of ozone pollution and states that the DEIR must be revised to include an analysis of the public health effects of ozone.*

RESPONSE: This comment reflects the opinion of the commenter. Ozone is not directly emitted by the Proposed Project. The DEIR analyzes and mitigates ozone precursors emitted by the Proposed Project.

ABJC-107 *The commenter asserted that odor impact analysis in the DEIR was inadequate.*

RESPONSE: See Section 2.3, Master Response – Odors, and ABJC-47.

ABJC-108 *The commenter asserts that the DEIR public health risk assessment is flawed.*

RESPONSE: See responses ABJC-43 and ABJC-44.

ABJC-109 *The commenter asserts that the construction health risk assessment was inadequate and that health risks due to the Project would be significant.*

RESPONSE: See responses ABJC-43, also Section 2.6, Master Response - Construction-Related Effects.

ABJC-110 *The commenter asserts that the operational health risk assessment was flawed.*

RESPONSE: See response ABJC-44.

ABJC-111 *The commenter asserts that the DEIR underestimated the increased demand for freshwater and the amount of wastewater effluent that would be generated by the Project. The commenter also asserts that water discharge impacts would be significant.*

RESPONSE: [Note: due to the length of the comment, this response refers to headings in the comment letter, which begin with X.A and end with X.E. In addition, please refer to response ABJC-45 for the majority of the response to this comment]

X.A. - The commenters' assumptions about freshwater and saltwater use are incorrect. Some of the calculations cited in the earlier technical support document for the hydrology/water quality analysis were incorrect, therefore the Pless calculations of water use for the Hydrogen Plant also were incorrect.

The Proposed Project would use 767 gpm (1.1 MGD) of freshwater from EBMUD when operating at capacity. This water would be used for cooling tower makeup, production of steam and production of hydrogen (from steam produced). This intake water would be consumed through cooling tower evaporation, cooling tower blowdown, boiler water blowdown, demineralizer reject water and steam converted to hydrogen. This balance of freshwater demand at maximum throughput rates is shown in the following summary table:

**TABLE ABJC-111-1  
SUMMARY OF FRESHWATER CONSUMPTION AND DISCHARGE**

(gpm)	Freshwater Consumption	Discharge to WWTP	Discharge to Once- Through-Cooling Water
U-240 CWT Evaporation	180	0	0
Sulfur Plant CWT Evaporation	46	0	0
H <sub>2</sub> Plant CWT Evaporation	78	0	0
U-240 CWT Blowdown	36	36	0
Sulfur Plant CWT Blowdown	9	9	0
H <sub>2</sub> Plant CWT Blowdown	17	17	0
H <sub>2</sub> Plant Boiler Blowdown	6	6	0
Demineralizer Reject Water	75	0	75
Deaerator Steam Vent	10	0	0
Steam Production H <sub>2</sub> Plant & SPP	182	0	0
Steam Production B-1	-182	0	0
Hydrogen Production Consumption	310	0	0
<b>Total EBMUD Makeup</b>	<b>767</b>		<b>0</b>
<b>Total To Wastewater</b>		<b>68</b>	<b>0</b>

The freshwater demands, and the conclusions reached regarding any impacts arising from them, are fully presented in the DEIR.

X.B – See response to ABJC-45.

X.C – See response to ABJC-45.

X.D - In regard to the pollutant loading associated with the proposed new Unicracker, the Unit 246 Hydrocracker would use recycled wash water (to remove salts from the system) which produces sour water. The sour water would be steam stripped to recover H<sub>2</sub>S and NH<sub>3</sub> prior to being recycled for wash water. Sour water is generated at a variety of sources at the Refinery including the existing Hydrocracking unit which also processes gas oil. Relative to other sour water streams at the Refinery, the existing Hydrocracker water selenium

concentration is low, contributing approximately 15% to the Selenium Treatment Plant load. (The remaining 85% is generated from process units that are not impacted by the proposed project.) The water flow to the Selenium Treatment Plant would not increase due to this reuse. However, recycling the stripped sour water could concentrate the selenium and could potentially increase the loading to the inlet of the Selenium Treatment Plant by 0.5 lbs/day. (This assumes that the additional sour water produced would have the same characteristics as the water produced from the existing gas oil Hydrocracker and conservatively assumes that all of the selenium from the reused water is discharged to the Selenium Treatment Plant.)

The Selenium removal efficiency of the Selenium Treatment Plant and Biological Treatment Plant is approximately 95 percent. At 95 percent removal efficiency, the increase of selenium loading to the Bay would conservatively be less than 0.05 lb/day. This amount is within the statistical variation experienced with the existing discharge (0.47 lb/day average) and well within the Refinery's discharge limit of 0.85 lb/day. This potential and relatively minimal increase may be offset by increased operating efficiency at the Selenium Reduction Plant. Selenium originating from Hydrocracker sour water has historically shown high removal efficiencies. Using higher doses of treatment chemicals or higher treatment residence time may completely remove this additional selenium load. Therefore, as stated in DEIR the potential increase of pollutant loading is deemed less than significant.

The Refinery's existing discharge consistently complies with all permit effluent limits, including those for mercury, nickel and selenium.

See also responses ABJC-45 and CBE-18.

X.E – See response to ABJC-45.

ABJC-112 *The commenter asserts that analyses for biological resources were flawed.*

RESPONSE: Comments concerning once-through water increase were addressed in response ABJC-45. Those concerning cumulative impacts were addressed in response ABJC-46.

The commenter asserts that ConocoPhillips can not guarantee continued compliance with the NPDES permit. ConocoPhillips is legally required to meet NPDES permit requirements. The Regional Water Board may take enforcement action under the authority of the Federal Clean Water Act and Amendments, and the Porter-Cologne Water Quality Control Act (California Water Code).

The RWQCB utilizes various methods in ensuring maintenance of water quality goals. As discussed in the DEIR (pages 4.9-23 and 4.9-24) and response ABJC-

45, “the RWQCB may require an industrial discharger to submit an Antidegradation Report, which would address mass increases of pollutants discharged and propose new treatment process units, if necessary, to maintain water quality” and “the RWQCB would have the authority to modify (according to CFR 40 122.62(a)(1)), but not revoke and reissue (unless ConocoPhillips requests or agrees), the existing NPDES permit under certain circumstances specified in the NPDES regulations.” With the exceptions noted on DEIR page 4.9-23, the applicant is in compliance with the water quality regulations as well as the plans, policies, and criteria of the Basin Plan. As stated in response ABJC-45, the continued involvement of the RWQCB to monitor discharges as specified in the NPDES permit will minimize potential impacts of the project. It would not be appropriate for the DEIR to assume that the NPDES permit conditions would be willfully violated.

The commenter states that the NPDES permit alone is not sufficient to demonstrate no significant impact on aquatic life, noting that total discharge of pollutants could increase without violating the NPDES permit since anticipated discharge levels are below NPDES permit limits. Specific commenter concerns regarding increased mass pollutants, increased once-through water demand and outfall E-003 effluent are addressed in response ABJC-45.

As stated in the DEIR (page 4.3-33), The “NPDES permit...includes both numeric toxicity limitations on effluent constituents, set at levels protective of aquatic life, and a narrative toxicity requirement stated as: “[No] toxic or other deleterious substances to be present in concentrations or quantities which would cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.” The DEIR further states that “to implement this requirement, the NPDES permit for the Refinery’s effluent requires acute and chronic toxicity bioassays for the discharges into the Bay.” The bioassays routinely determine the level of harm to specimens representative of the fishes and other aquatic life forms in San Pablo Bay.

The DEIR concludes that the Proposed Project would have a less than significant impact on biological resources partially because, among other NPDES criteria, mortality rates determined by the bioassays would remain within the permit limits. The DEIR also discusses bioaccumulative effects in both the Biological Resources section (pages 4.3-32 and 4.3-36) and Hydrology and Water Quality section (page 4.9-23). As the DEIR explains, the pollutants subject to the NPDES permit’s numeric limits and/or listed as “impairing” pollutants subject to TMDLs include bioaccumulative pollutants such as selenium and mercury. Water quality standards and permit limits for toxic pollutants are established to protect aquatic life as well as human health, and take into account available information on bioaccumulative effects. The Refinery consistently complies with effluent limits for bioaccumulative chemicals in its NPDES permit and would continue to do so

after the Project is implemented. Additionally, as stated in the DEIR and addressed in responses ABJC-45 and ABJC-46, the impairment of San Pablo Bay is primarily due to nonpoint and historic sources. Increased discharge of these pollutants, if any, would be insignificant.

Under the thresholds of significance for biological impacts utilized in the DEIR (pages 4.3-28 to 4.3-29) and adopted from CEQA Guidelines Appendix G, an impact is considered significant if the effect is substantial (e.g., substantial effect on endangered, rare or threatened species or their habitat; a fish or wildlife population drops below self-sustaining levels, a plant or animal community is threatened with elimination, etc.). Based on the Refinery's continued compliance with NPDES permit limits together with the negligible contribution of all refinery discharges to conditions in San Pablo Bay, it is reasonable to conclude that the Proposed Project's contribution does not exceed the thresholds of significance.