

COMMENT LETTER NO. 5
LETTER FROM ADAMS, BROADWELL, JOSEPH & CARDOZO

Katherine S. Poole
July 20, 2001

Response 5-1

It is recognized that the comment letter is submitted on behalf of the Southern California Pipe Trades District Council 16, Plumbers and Steamfitters Local Union 250, Alonzo Ransom, Carlos Valdez, and Frank Baiza.

The SCAQMD strongly disagrees with the commentator's opinion that the Draft EIR does not comply with CEQA and is inadequate, as explained in the following responses. Based on comments received on the Draft EIR, revisions have been made in the Final EIR. As discussed in all of the subsequent Responses (Responses 5-2 through 5-205), those revisions did not constitute significant new information, result in impacts greater than those that were evaluated in the Draft EIR, or constitute significant new information that would trigger recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5. Therefore, the Draft EIR does not need to be re-circulated for public review.

Response 5-2

It is recognized that District Council 16 and Local 250 have the same concerns described in Response 5-1. Therefore, please refer to Response 5-1. The concerns raised in the comment letter are addressed in all of the responses to subsequent comments (Responses 5-3 through 5-205).

Response 5-3

The SCAQMD is fully aware of its obligations under CEQA. As a result of its obligations under CEQA, the SCAQMD as lead agency had prepared an EIR that fully and comprehensively analyzes modifications at that Ultramar refinery mandated by the Governor's Executive Order and state law. Nothing in the analysis has been sacrificed "in the name of expediency."

The commentator implies that the SCAQMD should have been aware of water quality problems associated with MTBE prior to allowing its use. As the commentator is no doubt aware, water quality problems associated with MTBE were unknown at the time CEQA documents were prepared for refinery modifications mandated by both state and federal law. It is disingenuous for the commentator to imply that the SCAQMD should have known something that was unknown, after she has the benefit of six to seven years of accumulated knowledge regarding water quality problems associated with MTBE.

Response 5-4

Comment 5-4 summarizes the various comments outlined in comment letter #5. The SCAQMD disagrees with the comments regarding the inadequacy of the Draft EIR. See Responses 5-5 through 5-12 regarding the comment on the inadequacy of the project description. See Responses 5-13 through 5-24 regarding comments on air quality. See Response 5-30 through 5-31 regarding water quality. See Responses 5-25 regarding public health. See Responses 5-26 through 5-29 regarding worker safety. See Responses 5-32 through 5-35 and 5-38 through 5-48 regarding feasible mitigation measures. The SCAQMD strongly disagrees with the commentator's opinion that the Draft EIR fails to adequately analyze potential adverse impacts from the proposed project or impose feasible mitigation measures. In summary, the SCAQMD is required to ensure that all potentially significant environmental effects of the proposed project are addressed and mitigated to the extent feasible. Additional information has been obtained on the proposed modifications to third party blending facilities that Ultramar uses and the impacts have been included in the cumulative impact section. The modifications to third party terminals have been evaluated in other CEQA documents or were unknown at the time the CEQA document was written. The Draft EIR identified significant impacts to air quality. No significant impacts to water quality, public health or worker safety were identified related to the proposed project. Finally, feasible mitigation measures with demonstrated benefits have been imposed where significant impacts have been identified.

Response 5-5

The third party terminals are owned and operated by other entities. At the time the Draft EIR was released, Ultramar was not aware of the changes that may have been or could be required, if any, at most of these terminals and, therefore, any analysis of the impacts would have been speculative at that time. Additional information related to the third party terminals has become available and is summarized herein and where appropriate in the Final EIR.

Currently, Ultramar is proposing to receive ethanol from Equilon's Carson Terminal. The changes and modifications to this terminal are part of a separate EIR (Equilon Enterprises, LLC, Los Angeles Refinery, CARB Phase 3 Proposed Project, Draft EIR, July 2001). The impacts associated with the transport of ethanol into the region are included in the Equilon EIR. Further, the Equilon EIR also includes the emissions associated with transport of the entire amount of ethanol from the Carson Terminal to other terminals. Therefore, the emissions associated with the modifications to the Carson Terminal have been included in a separate EIR. Including those emissions in the Ultramar EIR is not required and would result in a double counting of emissions. It should be noted that the Equilon EIR includes the Ultramar proposed project under cumulative impacts because the Ultramar Draft EIR was completed and made available for public review before the Equilon Draft EIR. Likewise, data from the Equilon EIR has been included in the cumulative analysis for Ultramar in the Final EIR in order to provide an accurate public disclosure of the cumulative project impacts.

Ultramar is also proposing to use the Equilon Wilmington Terminal, the Kinder Morgan Orange Terminal, and the Kinder Morgan Colton Terminal. Since the release of the Draft EIR information has become available on the modifications to these terminals which are now included in the

cumulative impact section of the Ultramar EIR. Note that the modifications at most of the terminals are minor, resulting in about four to 12 pounds per day (lbs/day) of VOC emission increases. Some terminal modifications also had emission benefits, e.g., some of the modifications to the storage tanks at the Equilon Carson Terminal were expected to result in fewer VOC emissions following implementation of the proposed project.

Further, it should be noted that the Draft EIR included the impacts associated with the transport of ethanol into the South Coast Air Basin and to all third party terminals. The transport of ethanol accounts for the largest portion of the project-related air quality impacts at third party terminals, including emissions from trucks and railcars (see Final EIR, Tables 4-4 and 5-2, and Appendix B).

Response 5-6

See Response 5-5. As discussed above, the Draft EIR included the impacts associated with the transport of ethanol into the South Coast Air Basin and to all third party terminals. The transport of ethanol accounts for the largest portion of the project-related air quality impacts at third party terminals, including emissions from trucks and railcars (see Final EIR, Tables 4-4 and 5-2, and Appendix B). Further, the information available on the modifications to the Kinder Morgan and Equilon terminals used by Ultramar have been included in the cumulative analysis of the Final EIR. The cumulative analysis in the Final EIR indicates that the cumulative project emissions are significant for CO, VOC, NO_x, SO_x, and PM₁₀, which is the same conclusion as the Draft EIR. The information on the distribution terminals does not constitute significant new information because it does not create a significant new impact or substantially increase the severity of an environmental impact (CEQA Guidelines §15088.5(a)). As a result, the new information does not change the EIR "in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project..." (CEQA Guidelines §15088.5(a)). Consequently, the new information does not trigger any of the conditions that require recirculation of an EIR (CEQA Guidelines §15088.5).

Response 5-7

The Draft EIRs for Mobil, Equilon, and ARCO included modifications to distribution terminals that were owned and operated by them, e.g., the EIR for Mobil included modifications to distribution terminals owned by Mobil. Modifications to third party terminals (terminals not owned by the oil company) for Mobil, Equilon, and ARCO were not included in their respective EIRs. Rather the EIRs for Mobil, Equilon, and ARCO only evaluated changes to terminals owned by them.

The commentator's assertion that, "These DEIRs recognize that activities associated with ethanol blending at local distribution terminals will cause significant impacts in the areas of air quality . . . and hazardous materials" is not accurate. In fact, the modifications at most of the distribution terminals are relatively minor (about four to 12 lbs/day), involving the change in service in storage tanks and/or construction of new storage tanks, and minor pumping and piping modifications.

Response 5-8

See Response 5-5. The cases cited in this comment are not germane to the argument. The cases refer to development that required the expansion of a wastewater treatment plant as a necessary part of a development project. For the Ultramar proposed project, the third party terminals are existing operations that have indicated through contract agreements that they can handle the blending of ethanol. Nevertheless, as noted in Response 5-6, modifications at the terminals owned by the other refineries were relatively minor in nature and do not require substantial expansion of these facilities. The information on the distribution terminals does not constitute significant new information because it does not create a significant new impact or substantially increase the severity of an environmental impact (CEQA Guidelines §15088.5(a)).

Response 5-9

See Responses 5-5 through 5-8 and Responses 5-10 through 5-12 regarding third party terminals. Also, note that the six terminals proposed to be modified in the Equilon EIR are owned solely by Equilon and the two terminals referred to in the ARCO EIR are solely owned ARCO.

Response 5-10

The analysis of potential adverse impacts was conducted for the whole project as it was known at the time the Draft EIR was released for public review. As noted in Response 5-5, new information has become available regarding potential modifications at terminals that may be used by Ultramar. Further, this information has been added to the cumulative impact section of this Final EIR. See also Response 5-6.

Response 5-11

The SCAQMD disagrees with the commentator's opinion that modifications at the distribution terminals cause significant environmental impacts. The Draft EIR included the impacts associated with the transport of ethanol into the South Coast Air Basin and to all third party terminals. The transport of ethanol accounts for the largest portion of the project-related air quality impacts at third party terminals, including emissions from trucks and railcars (see Final EIR, Tables 4-4 and 5-2, and Appendix B). Further, as noted in Response 5-7, environmental impacts from terminal modifications are relatively minor.

Response 5-12

As noted in Response 5-5, the cumulative impact section of the EIR has been revised to reflect new information on the modifications at third party terminals that may be used by Ultramar. Further, as noted in Response 5-6, this new information does not trigger any of the requirements for recirculating a Draft EIR contained in CEQA Guidelines § 15088.5.

Response 5-13

The SCAQMD disagrees with this comment. While several inconsequential calculation errors in the Draft EIR were identified, most of the analyses were completed using conservative assumptions. Identified errors were corrected in the Final EIR and correction of these errors has not resulted in any significant impacts not previously identified or made substantially worse previously identified environmental impacts. Specific responses are provided in Response 5-14 through 5-24 below.

Response 5-14

The SCAQMD strongly disagrees with the commentator's opinion that PM10 emissions from construction activities were underestimated. See Responses 5-15, and 5-53 through 5-63 regarding PM10 emission calculations. As discussed in those responses, construction emissions for the proposed project have been revised in the Final EIR (see Table 4-3 and Appendix B of the Final EIR) to account for the scaled-down construction activities and a more detailed construction schedule. The revised emission calculations indicated that the PM10 emissions are expected to be about the same as previously calculated and remain less than significant.

Response 5-15

The Draft EIR correctly used the emission factors provided in the SCAQMD's CEQA Handbook (SCAQMD, 1993). The MRI factors referenced in this comment have not been incorporated into the SCAQMD's CEQA guidelines. Some of the composite MRI emission factors have been used for planning purposes but are not considered appropriate for project specific analysis. The Draft EIR used appropriate emission factors to estimate the construction emissions (see Appendix B of the Final EIR for further details).

See Responses 5-59 through 5-63 regarding PM10 emission calculations. The draft EIR concluded that the construction emissions of CO, VOCs, and NOx were significant. The revised construction emission estimates completed for the Final EIR indicate that these pollutants remain significant and that the emissions of SOx and PM10 are less than significant. Therefore, feasible mitigation measures are required for CO, VOCs, and NOx, but not required for SOx and PM10 (CEQA §115126(c)).

Response 5-16

Mitigation measures are not required since construction emissions of PM10 are not expected to be significant (CEQA §115126(c)).

Response 5-17

Mitigation measures are not required since construction emissions of PM10 are not expected to be significant. See Responses 5-91 through 5-140 on Attachment I for detailed responses to the feasibility of the various emission control technologies or strategies referenced in this comment.

Response 5-18

The SCAQMD strongly disagrees with the commentator's that the Draft EIR underestimates railcar emissions. The SCAQMD believes that the Draft EIR accurately estimated the emissions from railcars. See Responses 5-141 through 5-145 for detailed responses to the issue of railcar emissions.

Also, the comment incorrectly indicates that the Draft EIR only considered railcar emissions in the South Coast Air Basin. The emissions from the railcars within California were calculated in the Draft EIR and the review of those emissions are further discussed in Response 5-142.

CEQA Guidelines §15040(b) states, "CEQA does not grant an agency new powers independent of the powers granted to the agency by other laws." The Clean Air Act and U.S. EPA regulations leave the SCAQMD no authority to directly regulate railcar emissions. With regard to implementing other feasible mitigation measures, see Responses 5-42, 5-166, 5-167, and 5-168 regarding the potential to mitigation project emissions with "dissimilar" emissions. See Response 5-43 regarding the control of VOC emissions at the Refinery. See Responses 5-44, 5-172, 5-173, 5-174, 5-175, and 5-176 regarding the control of NO_x emissions. See Response 5-45 regarding the control of emissions outside of the South Coast Air Basin. See Response 5-46 regarding other available mitigation measures. See Response 5-48 regarding the control of NO_x emissions at sources other than the Refinery. See Responses 5-97, 5-98, 5-99, 5-100, 5-101, 5-102, 5-103, and 5-104 regarding the use of post combustion controls. See Responses 5-177 through 5-183 regarding the retrofit of off-road mobile sources. See Responses 5-184 and 5-185 regarding the use of low sulfur diesel.

The Clean Air Act does not preempt "in-use" mitigation measures. The following "in-use" measures were considered and found to be infeasible or found to be ineffective as mitigation: limiting the hours of use or the number of engines used; prohibiting railcar visits during first or second stage smog alerts; imposing fuel specifications; and reducing rail speeds. It was determined that imposing these types of mitigation measures would not be expected to be effective in reducing emissions in the Basin since they would only apply to one company. Other companies would be able to transport the materials into the Basin without any such restrictions. Therefore, no real emission benefits would be expected.

Response 5-19

The comment is incorrect regarding the use of low sulfur diesel. As explained in Response 5-146, the sulfur content assumed in the diesel fuel was 0.25 percent.

Response 5-20

See Responses 5-148 through 5-150 regarding operational emissions of PM₁₀ that were raised in more detail in Attachment I to this comment letter. The revised operational emissions of PM₁₀ are expected to remain less than significant so mitigation measures are not required.

Response 5-21

See Response 5-151 regarding VOC emissions from ethanol loading and blending. The Draft EIR included the impacts associated with the transport of ethanol into the South Coast Air Basin and to all third party terminals. The transport of ethanol accounts for the largest portion of the project-related air quality impacts at third party terminals, including emissions from trucks and railcars (see Final EIR, Tables 4-4 and 5-2, and Appendix B). The cumulative impact section of the Final EIR has been revised to include additional data on blending activities at third party terminals that has become available since the preparation of the Draft EIR. Inclusion of these emissions does not result in significant changes to the EIR and does not change the conclusions of the Draft EIR.

Response 5-22

See Response 5-78 regarding indirect emissions associated with increased use of electricity that was raised in more detail in Attachment I to this comment letter. Additional emissions related to the proposed project are not expected at electrical power plants because the air permits for power plants are based on the maximum capacity of the facility so that additional emissions from projects that require electricity are not expected; (2) emission limitations have been placed on the air quality permits for all power plants which limit the total emissions; and (3) all power plants in the South Coast Air Basin are under regulations which limit their emissions. Electrical generating facilities must comply with all emission limitations imposed by SCAQMD rules, regulations or permit conditions. Any operator wishing to increase capacity would have to apply for new permits, which would require additional CEQA review. The proposed project is not expected to result in the need for additional generating capacity in the Basin.

LADWP does not own or operate any coal-fired plants within California. Also note that the electrical generation plants within the South Coast Air Basin use natural gas, and not coal or diesel fuel, as the primary fuel.

Response 5-23

See Response 5-156 regarding the estimates of diesel truck trips. See Response 5-157 regarding the distance between Carson (not Colton) and Orange. See Response 5-158 regarding the total distance traveled by ethanol trucks. See Response 5-159 regarding the estimated NO_x and CO emissions associated with truck travel. Emissions from heavy-duty diesel truck trips have been revised in the Final EIR to reflect more recent data. The revisions do not cause any new significant impacts that were not addressed in the Draft EIR. Please note that page 10 of the commentator's letter was received as a blank page.

Response 5-24

The construction emission calculations have been revised to account for the scaled down construction activities, due to more detailed information on the construction schedule and activities, and to reflect more recent emissions data. However, both PM₁₀ and SO_x emissions during project construction and operation are less than significant so no mitigation measures are required (CEQA §115126(c)). See Responses 5-89 through 5-90 regarding the emissions that are required to be

mitigated and the general requirements for mitigation measures. See Responses 5-91 through 5-92 regarding the use of PuriNOx. See Responses 5-93 through 5-94 regarding the use of fuel additives. See Responses 5-95 through 5-96 regarding the use of CARB-certified construction equipment. See Responses 5-97 through 5-104 regarding the use of post-combustion controls. See Responses 5-105 through 5-113 regarding other engine exhaust measures. See Responses 5-114 through 5-140 regarding the control of fugitive dust emissions.

Response 5-25

The SCAQMD strongly disagrees with the commentator's opinion that air toxic emissions are under-estimated in the Draft EIR. See Responses 5-160 regarding comments on the toxic air contaminant emission inventory. See Response 5-161 regarding the comment that the Draft EIR omitted major sources of toxic emissions. See Response 5-162 regarding the comment that the Draft EIR did not evaluate the health impacts from diesel exhaust. See Response 5-163 and 5-164 regarding the decreased emissions of toxic air contaminants. The impacts associated with exposure to toxic air contaminants related to the proposed project are expected to be less than significant.

Responses 5-26 through 5-29

Additional information has been included in the EIR to explain the health and safety procedures in place during the excavation and removal of contaminated soil. Ultramar follows regulations and guidelines for handling contaminated soil, which would minimize the potential worker exposures during remediation activities. See Responses 5-186 through 5-202 regarding worker safety and the potential exposure to contaminated soils that were raised in more detail in Attachment I to this comment letter.

Response 5-30

The SCAQMD strongly disagrees with the commentator's opinion that the Draft EIR ignored significant water quality impacts. The Draft EIR evaluated potential water quality impacts as explained in Response 5-31, and concluded that significant adverse water quality impacts would not be generated by the proposed project.

Response 5-31

The release of ethanol may be potentially significant and increase the concentration of hydrophobic compounds in ground water, however, because of the following control measures, no significant ethanol release or impacts are expected: (1) source control programs, cathodic protection, periodic testing of pipelines, and so forth, are standard practice at most third party terminals; and (2) terminals have an existing ground water sampling program which will be expanded to include ethanol. The proposed project does not include the installation of any new underground storage tanks. However, additional underground storage tank requirements have been imposed which further reduce the potential for leaks, e.g., double containment requirements, and leak detection systems.

It is also important to note that the study completed by Lawrence Livermore National Laboratory (LLNL) is only one of a number of reports used by the state to review the elimination of MTBE from gasoline. Extensive analysis was completed by the University of California, California Air Resources Board, Regional Water Quality Control Board, among others, associated with SB 521. The LLNL report (UCRL-AR-135949, 1999) presents information on releases of ethanol to soil and surface waters. This document was prepared as part of Senate Bill 521 (SB 521), enacting the MTBE Public Health and Environmental Protection Act of 1997 which directed the University of California to conduct research on the effects of MTBE. SB 521 also required the Governor to take appropriate action based on the findings of the report and information from public hearings. In consideration of this study, public testimony, and other relevant information, California's Governor Davis found that, "on balance, there is significant risk to the environment from using MTBE in gasoline in California." In response to this finding, on March 25, 1999, the Governor issued Executive Order D-5-99 which directed, among other things, that California phase out the use of MTBE in gasoline by December 31, 2002. The LLNL report also indicates that eliminating the use of MTBE and replacing it with ethanol is expected to mitigate the ground water problems created by MTBE. Therefore, on balance, the decision to eliminate MTBE is expected to provide beneficial impacts to ground water quality throughout the state.

Response 5-32

The SCAQMD is aware of the CEQA requirements relative to adopting a reporting or monitoring program pursuant to Public Response Code § 21081.6 and CEQA Guidelines § 15097. The SCAQMD enters into a legally binding mitigation agreement with the project applicant in order to ensure that the mitigation measures are fully enforceable. The mitigation agreement references the reporting and monitoring plan prepared for each project for which feasible mitigation measures have been identified. The reporting and monitoring plan includes all identified mitigation measures, the entity responsible for implementing the mitigation measures, and the public agency responsible for monitoring implementation of the mitigation measures.

Following the completion of the Draft EIR and review of the public comments, the Final EIR is prepared. A separate mitigation monitoring plan and the mitigation agreement are also prepared at that time. The CEQA Guidelines require the preparation of the mitigation monitoring plan but do not require that the monitoring plan be prepared as part of the Draft EIR. The SCAQMD does not typically include the monitoring and reporting plan in the Draft EIR because mitigation measures could be added, deleted or modified as a result of public comment on this Draft EIR. The SCAQMD typically prepares the mitigation monitoring plan before the Final EIR is certified.

Response 5-33

There is no requirement in the CEQA statutes or guidelines that requires the construction emission management plan to be completed as part of the draft EIR. The SCAQMD requires the completion of the construction emission management plan prior to commencing construction activities associated with the proposed project. Mitigation measures will be enforced through the mitigation agreement between the SCAQMD and Ultramar. The construction plan simply formalizes the mitigation measures already identified in the EIR and would not impose any new or additional mitigation measures that were not a part of the EIR. The construction plan will impose

requirements to avoid scheduling truck deliveries during peak traffic periods and prohibit truck idling in excess of 10 minutes. The construction emission management plan will also impose requirements to implement the other mitigation measures. The performance standards are basically the control efficiencies of the mitigation measures, if they are known. The control efficiencies (generally based on the SCAQMD CEQA Handbook) for the mitigation measures are outline in Table 4-9 of the Final EIR, if they are known. Finally, the only thing the construction plan will have that is not included in the Draft EIR is the specific schedules for deliverables, e.g., report on the availability of alternative fueled equipment, which is reasonable because the schedule will be based on the certification date of the Final EIR.

Response 5-34

The Draft EIR concluded that the PM10 emissions during construction activities were less than significant. Revised construction emission estimates prepared for the Final EIR reach the same conclusion, i.e., the project will not result in significant PM10 emissions during the construction phase. Therefore, mitigation measures are not required for PM10 emissions. Several mitigation measures have been imposed to assure that the emission estimates are accurate (e.g., watering construction site) and so that no nuisance complaints occur. See Response 5-33 regarding the construction plan and the development of mitigation measures. Also, see Responses 5-85 through 5-88 regarding the adequacy of mitigation measures for PM10 emissions from grading, open storage piles, and unpaved roads.

Response 5-35

The SCAQMD disagrees with this comment since feasible mitigation measures were imposed on the proposed project. See Responses 5-74 through 5-88 regarding mitigation of off-road construction sources that were raised in more detail in Attachment I to this comment letter. Where available, the SCAQMD identifies feasible mitigation that could minimize significant adverse impact, which is consistent with CEQA Guidelines § 15126.14(a). CEQA does not impose requirements to reduce significant impacts below the level of significant as asserted by the commentator.

Response 5-36

Additional information has been included in the EIR to explain the health and safety procedures in place during the excavation and removal of contaminated soil. Ultramar follows regulations and guidelines for handling contaminated soil that would minimize the potential worker exposures during remediation activities. Existing laws and regulations address the discovery and remediation of contaminated sites, including the discovery of such sites during construction activities. Existing laws require health and safety plans, working training, and various other activities which serve to protection workers from exposure to contamination, including 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response (Fed-OSHA, HAZWOPER); CCR 5192, Hazardous Waste Operations and Emergency Response (Cal-OSHA, HAZWOPER); and SCAQMD Rule 1166, Volatile Organic Compound (VOC) Emissions from Decontamination of Soil. Significant impacts associated with the potential for contaminated soils were not identified so no feasible mitigation measures are required. See Responses 5-186 through 5-189 regarding the soil

contamination issues. See Response 5-187 regarding safety procedures and the monitoring requirements for soil contamination. See Responses 5-190 through 5-202 regarding the potential for worker exposure.

Response 5-37

A Phase 2 site assessment may be required if significant contamination is found. Currently, there is no known contamination in areas of the Refinery or pipelines that would be disturbed so a Phase 2 assessment is not required at this time. See Response 5-187 regarding the monitoring requirements for soil contamination.

As discussed in the EIR (Draft EIR page 4-23), there are many existing rules and requirements (particularly Title 22 of the California Code of Regulations) that regulate the actions to be conducted when contaminated soils are discovered and to assure that contamination is properly addressed and regulate the handling, transportation, and ultimate disposition of the contaminated soils. These rules and regulations do not require that all construction activities stop when and if contamination is discovered. Rather they require reporting to the appropriate agencies, additional sampling, testing, remediation as applicable, and the ultimate fate of the hazardous materials. Compliance with these requirements is expected to minimize the potential for significant impacts.

Response 5-38

Feasible mitigation measures were imposed on the proposed project in the Draft EIR. Additional research has been conducted and some additional mitigation measures have been required. Construction emissions have been revised; however, both PM10 and SOx emissions during project construction and operation are less than significant so no mitigation measures are required. See Responses 5-89 through 5-90 regarding the emissions that are required to be mitigated and the general requirements for mitigation measures. See Responses 5-91 through 5-92 regarding the use of PuriNOx. See Responses 5-93 through 5-94 regarding the use of fuel additives. See Responses 5-95 through 5-96 regarding the use of CARB-certified construction equipment. See Responses 5-97 through 5-104 regarding the use of post-combustion controls. See Responses 5-105 through 5-113 regarding other engine exhaust measures. See Responses 5-114 through 5-140 regarding the control of fugitive dust emissions. The mitigation measures recommended in this comment letter were thoroughly evaluated and most of the measures were determined to be infeasible or not demonstrated to provide emission benefits.

Response 5-39

The SCAQMD disagrees with the comment that the Draft EIR fails to evaluate several feasible mitigation measures. See Responses 5-89 through 5-90 regarding the emissions that are required to be mitigated and the general requirements for mitigation measures. See Responses 5-91 through 5-92 regarding the use of PuriNOx. See Responses 5-93 through 5-94 regarding the use of fuel additives. See Responses 5-95 through 5-96 regarding the use of CARB-certified construction equipment. See Responses 5-97 through 5-104 regarding the use of post-combustion controls. See Responses 5-105 through 5-113 regarding other engine exhaust measures. See Responses 5-114 through 5-140 regarding the control of fugitive dust emissions. The mitigation measures

recommended in this comment letter were thoroughly evaluated and most of the measures were determined to be infeasible or not demonstrated to provide emission benefits.

Response 5-40

See Responses 5-91 through 5-92 regarding the use of PuriNOx. See Responses 5-93 through 5-94 regarding the use of fuel additives. See Responses 5-95 through 5-96 regarding the use of CARB-certified construction equipment. See Responses 5-97 through 5-104 regarding the use of post-combustion controls. See Responses 5-105 through 5-113 regarding other engine exhaust measures. See Responses 5-105 through 5-1139 regarding specific measures from the CEQA guidelines of other air districts.

Response 5-41

The Draft EIR concluded and the Final EIR continues to conclude that the proposed project emissions of VOCs and NOx were significant. The comments presented in this letter have been reviewed, and the emission estimates in the EIR have been reviewed. Minor changes and modifications have been made to the emission calculations in the Final EIR (see Appendix B, Emission Calculations). These modifications did result in significant increases in emissions and did not alter the significance conclusions of the Draft EIR.

Feasible mitigation measures were imposed on the proposed project in the Draft EIR. Additional research has been conducted and some additional mitigation measures have been required. The mitigation measures recommended in this comment letter were thoroughly reviewed and most of the measures were determined to be infeasible or not demonstrated to provide emission benefits. See Response 5-42 through 5-48 regarding feasible mitigation measures. See Response 5-165 through 5-166 regarding appropriate mitigation measures. See Response 5-113 regarding the use of offsets as mitigation measures. See Responses 5-91 through 5-92 regarding the use of PuriNOx. See Responses 5-93 through 5-94 regarding the use of fuel additives. See Responses 5-95 through 5-96 regarding the use of CARB-certified construction equipment. See Responses 5-97 through 5-104 regarding the use of post-combustion controls. See Responses 5-105 through 5-113 regarding other engine exhaust measures.

CEQA Guidelines §15040(b) states, “CEQA does not grant an agency new powers independent of the powers granted to the agency by other laws.” As stated in the Draft EIR, the SCAQMD has no authority to regulate certain indirect emission sources and this statement is supported by the CEQA Guidelines §15040(b); therefore, it is not contrary to CEQA standards and practices as indicated by the commentator. With regard to implementing other feasible mitigation measures, see Response 5-166.

Response 5-42

The SCAQMD is aware of CEQA requirements regarding identifying feasible mitigation measures. Feasible mitigation measures for the proposed project were identified consistent with CEQA Guidelines §15126.4(a)(4)(A), which states, “There must be an essential nexus (i.e., connection) between the mitigation measure and a legitimate governmental interest. *Nollan vs. California Coastal Commission*, 483 U.S. 825 (1987).” The implication in this comment, that there need not

be a nexus between the impact and the mitigation measure, is contradictory to the above-identified CEQA requirement. Also, see Response 5-166.

Response 5-43

Per the requirements of SCAQMD Rule 1304(c)(4), offsets are not required for projects that are needed to comply with state or federal regulations. The proposed project is required to comply with CARB Phase 3 gasoline requirements so emission offsets are not required. Further, all of the fugitive VOC sources identified by the commentator are already regulated pursuant to existing SCAQMD rules as follows: tanks, Rule 1149; sumps, Rule 1176; and pumps, compressors, valves, vents, and flanges, Rule 1173.

Response 5-44

Per the requirements of SCAQMD Rule 1304(c)(4), offsets are not required for projects that are needed to comply with state or federal regulations. The proposed project is required to comply with CARB Phase 3 gasoline requirements so emission offsets are not required.

Response 5-45

See Response 5-44 regarding the need for offsets for the proposed project. The retrofit of a bus fleet in San Diego did not qualify as mitigation for the ARCO Carson Refinery Clean Fuels Project. The emissions from the ARCO Carson Refinery would be emitted in the South Coast Air Basin. The emission reductions in San Diego would occur in a different air basin and would not mitigate the Refinery emissions in Carson. Also, see Response 5-42.

Response 5-46

First the commentator expresses the opinion that “lead agencies can and often do present the Applicant with a laundry list of available mitigation measures, simply requiring that enough of the measures be implemented to reduce impacts below a level of insignificance.” This opinion is not supported by any evidence or examples of such a practice and is contrary to the SCAQMD’s experience reviewing CEQA documents prepared by other public agencies in the district as part of its intergovernmental review (IGR) responsibility under CEQA. The SCAQMD receives approximately 50-80 CEQA documents each month for review to ensure that the air quality analyses prepared by other public agencies in the district are adequate and consistent with the SCAQMD’s CEQA Air Quality Handbook. At least with regard to air quality mitigation measures, the “laundry list” approach advocated by the commentator is rarely, if ever, encountered.

Further the commentator’s recommendation that the SCAQMD allow the applicant to choose alternative voluntary measures would be inconsistent with CEQA’s requirement that “mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments. As noted previously, the SCAQMD has identified feasible mitigation measures and will enforce these measures through a legally binding agreement with the project proponent (refer to Response to Comment 5-32).

Response 5-47

The SCAQMD disagrees that the “DEIR does not require all feasible mitigation measures to reduce the Project’s emissions of NOx and VOCs.” See Response 5-113 regarding the use of offsets as mitigation measures. See Responses 5-91 through 5-92 regarding the use of PuriNOx. See Responses 5-93 through 5-94 regarding the use of fuel additives. See Responses 5-95 through 5-96 regarding the use of CARB-certified construction equipment. See Responses 5-97 through 5-104 regarding the use of post-combustion controls. See Responses 5-105 through 5-113 regarding other engine exhaust measures.

Response 5-48

The types of equipment recommended for additional control in this comment, refinery boilers (Rule 1109) and small boilers, heaters, steam generators, etc. (Rule 1146) would be considered NOx emission sources that contribute to Ultramar’s facility-wide emissions allocation that is already subject to declining annual allocations under the SCAQMD’s RECLAIM program (Regulation XX). Emission reductions from this equipment may be necessary to contribute to complying with Ultramar’s ending allocation and, therefore, may not be available at this time as feasible mitigation for CEQA (since it would already be required by rules/regulations).

See Response 5-176 regarding NOx control equipment. The SCAQMD is aware of the potential NOx control efficiency of SCR as it is considered BACT by the SCAQMD and LAER by the U.S. EPA. Consequently, it is not surprising that SCR would be used on the equipment described by the commentator to comply with federal LAER requirements. The SCAQMD does not consider complying with existing rules, regulations, laws, etc., as feasible CEQA mitigation as this would be required for project approval.

See Response 5-178 through 5-182 regarding the control of emissions from marine engines. See Response 5-183 regarding the control of emissions from railcars. As noted previously, the SCAQMD has no authority to regulate emissions from marine or railcar engines.

Response 5-49

The SCAQMD disagrees with the commentator’s opinion that the “DEIR fails to identify and adequately mitigate or avoid all potentially significant environmental effects of the Project.” Changes have been incorporated into the Final EIR including additional details on the modifications to third party off-site blending terminals and changes to emission calculations (see Responses 5-5 through 5-12). Further, all feasible mitigation measures have been incorporated into the proposed project. See Response 5-113 regarding the use of offsets as mitigation measures. See Responses 5-91 through 5-92 regarding the use of PuriNOx. See Responses 5-93 through 5-94 regarding the use of fuel additives. See Responses 5-95 through 5-96 regarding the use of CARB-certified construction equipment. See Responses 5-97 through 5-104 regarding the use of post-combustion controls. See Responses 5-105 through 5-113 regarding other engine exhaust measures. The modifications to the EIR, including recently available information on third party terminals, do not constitute significant new information that would trigger recirculation of the Draft

EIR pursuant to CEQA Guidelines §15088.5. This comment summarizes the comments raised in this letter and the attachment, and is addressed in the other responses to this letter.

Response 5-50

The SCAQMD strongly disagrees with the commentator's opinion that the analysis of environmental impacts from the proposed project contained in the Draft EIR is somehow lacking.

The construction emission estimates in the Draft EIR have been revised in the Final EIR due to comments received on the Draft EIR and changes in the scope of the project and its construction schedule (see Final EIR, Appendix B). More detailed information has been provided that shows the schedule for the construction activities at the Refinery as well as the pipeline. The construction emissions have also been broken down by construction phases to clarify the daily maximum impacts. As further discussed below, the estimated peak daily PM10 emissions from construction activities from the proposed project are expected to be less than 150 lbs/day (significance threshold) and less than significant. Procedures are in place that are expected to avoid worker exposure to contaminated soils (see Responses 5-186 through 5-188). Ethanol leaks are not expected and therefore, impacts on existing groundwater contamination are not expected (see Responses 5-203 through 5-205). Feasible mitigation measures have been developed for the proposed project and specified responses to the comments raised are addressed in responses 5-51 through 5-204 below.

Response 5-51

Construction emissions for the proposed project have been revised in the Final EIR due to changes in the scope of the project and its construction schedule (see Final EIR, Appendix B). The revised emission calculations indicated that the PM10 emissions are less than previously calculated and remain less than significant.

It is unclear why the commentator states that mitigation measure A-8 (now A-11) does not constitute mitigation. Although mitigation measures A-11 discusses preparation of a fugitive dust control plan, the measure identifies all of the actions to be included in the plan, including in some cases, performance standards, which is precisely what the commentator advocated in comment 5-46. Further, the specific actions identified in mitigation measure A-11 are standard mitigation measures recommended in the SCAQMD's CEQA Air Quality Handbook.

Response 5-52

The PM10 fugitive dust emission factors used to calculate construction PM10 emissions are standard emission factors currently recommended for use by the SCAQMD in its CEQA Handbook (SCAQMD, 1993). The MRI factors referenced in this comment have not been incorporated into the SCAQMD's CEQA Handbook. Some of the composite MRI emission factors have been used for planning purposes but are not considered appropriate for project specific analysis. Future revisions to the Handbook may include evaluating the MRI factors for appropriateness and possible inclusion in the Handbook, but until that time, the SCAQMD continues to recommend using the

PM10 emission factors from the Handbook. Therefore, the Draft EIR used appropriate emission factors to estimate the construction emissions.

Response 5-53

The fugitive dust emission calculations have been revised based on a more detailed and accurate construction schedule. It should be noted that the grading for the Refinery equipment will occur during the first three months of the construction schedule and the grading associated with the pipeline will occur during months seven through 12 of the construction schedule. Therefore, the grading at the Refinery and of the pipeline trench is not expected to overlap (see Final EIR, Appendix B).

The commentator asserts that PM10 emissions from construction are underestimated because certain activities typically associated with construction are not analyzed. However, not all activities identified by the commentator will occur as part of the construction activities at the Ultramar refinery. The construction activities at the Refinery are limited and only involve the construction of building pads for the new facilities. The Refinery site is already flat and graded so topsoil removal and cutting and filling activities are not required.

Further clarification on construction activities and emission calculations are provided in the following responses. See Responses 5-54, 5-55 and 5-56 regarding PM10 emissions associated with construction activities. See Response 5-57 regarding emissions associated with excavation activities, truck filling and dumping, and grading activities.

Response 5-54

See Response 5-53 regarding fugitive dust emission calculations. The proposed project has been revised and most of the proposed new refinery units were removed from the project. The list of equipment expected to be used during the construction phase has changed from the Draft EIR so the equipment referenced in this comment is not current. The revised equipment list is found on page B-3 of the Final EIR. The construction emissions in the Draft EIR included the construction activities for the original project and not the modified project. The construction emissions in the Final EIR have been revised to account for the reduced project scope and to account for the different phases of project construction. The construction emission estimates have been revised to accurately account for the number of pieces of equipment that are pushing dirt around (from one to two pieces of equipment) and to estimate emissions during the different phases of construction activities.

The commentator asserts here, incorrectly, that the Draft EIR omitted from the analysis emission estimates for certain construction activities. Refer to the responses to comments 5-53 and 5-56, which address this incorrect assertion in detail.

Response 5-55

As discussed in Responses 5-56 and 5-57, emissions are not expected from removal of topsoil and cut and fill. Emissions associated with truck filling and dumping have been included in the Final

EIR. The inclusion of these emission sources resulted in an increase in PM10 emissions of 17 pounds per day.

Response 5-56

The comment incorrectly concludes that four primary activities were omitted from the Draft EIR: (1) dumping of soils; (2) topsoil removal; (3) cut and fill operations; and (4) dirt hauling.

As discussed in the Draft EIR and Response to Comment 5-53, only minor grading at the Refinery is required because the site is essentially flat. Grading will only be required to develop stable building pads. No soil is expected to be removed from the Refinery. Soil only will be removed if it is contaminated and regulations require that it be removed. The Final EIR estimates of grading are based on the project description and assume that 10 percent of the total grading required will result in the discovery of contaminated soils or about 757 cubic yards at the Refinery (10 percent of 7,565) and 1,080 cubic yards associated with construction of the pipeline (10 percent of 10,800). Emissions associated with the truck filling and dumping have been included in the EIR. Note that emissions associated with grading at the Refinery (months 1-3) are not expected to occur during the same phase of construction as the trenching associated with pipeline construction (months 7-12). See the Final EIR, page B-3 for more detailed information on the construction equipment required for each phase of development.

No removal of topsoil is expected to be required. The refinery site and pipeline route have already been graded and developed (predominately with industrial structures and no topsoil is expected to be removed.

Cut and fill is not required at the Refinery. A small amount of cut and fill will be required to develop the pipeline trench. Additional emissions for these activities have been included in the Final EIR. These additional emissions do not change any conclusions regarding air quality in the EIR, nor do they constitute significant new information that triggers recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5.

Response 5-57

The SCAQMD CEQA Handbook provides general procedures and default factors for estimating PM10 emissions (Table A9-9) if specific information on construction equipment and/or activities are not known. The emission calculations provided in this comment are based on the default emission factors provided in Table A9-9 of the SCAQMD CEQA Handbook. The Handbook also allows for and the SCAQMD recommends the calculation of emissions using more project-specific data, if these data are available. Therefore, the emission factors in Table A9-9 have generally not been used. Rather, more project-specific emission factors were estimated from other tables in the Handbook, which provides a more accurate estimate of construction emissions. Using both Table A9-9 plus the more specific emissions calculations (Tables A9-9-A through A9-9-G) would result in a doubling counting of PM10 emissions.

Additional emission calculations have been included for truck filling and dumping. The only soil that would be loaded and transported from the site would be contaminated soils. The proposed

project estimates for grading have been revised to an estimated 7,565 cubic yards of dirt at the Refinery. This dirt is associated with grading activities. Soil removal at the Refinery is estimated to be limited to 757 cubic yards. Grading associated with the pipeline construction assumes about 10,800 cubic yards of soil will be disturbed with about 1,080 cubic yards requiring removal. The revised PM10 emission estimates are provided in Appendix B of the Final EIR. The daily maximum PM10 emissions are expected to be less than 150 pounds per day.

The commentator has overestimated emissions by including emissions associated with top soil removal, cut and fill and dirt hauling (see Response 5-55 and 5-56 for further details). As noted in Responses 5-55 and 5-56, these three construction activities will not occur as part of the construction activities at the Ultramar Refinery.

Response 5-58

The estimated grading required for each portion of the project as well as for the pipeline is included in Appendix B of the Final EIR. See also Responses 5-56 and 5-57 for grading assumptions and estimates.

Response 5-59

The volume of soil disturbed during pipeline construction was estimated assuming that the pipeline length was about 19,500 feet long (about 3.7 miles), and the pipe trench would be three feet by five feet for a total estimate soil removal volume of about 10,800 cubic yards of soil. This information has been included in the Final EIR to clarify the amount of soil that is expected to be removed.

The length of the pipelines from Ultramar to ARCO is about 3.7 miles. The Draft EIR on page 4-34 calculates the potential for a pipeline leak, which is based on the total new pipeline length that is installed. Therefore, the total pipeline length is 11.1 miles (3 pipelines x 3.7 miles). The pipeline length used to calculate the potential for a pipeline leak has been revised on page 4-34 to reference 11.1 miles, not six miles. This modification to the EIR does not change any conclusions regarding potential hazard impacts nor does it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5.

Response 5-60

The information regarding the pipeline trench length and dimensions has been included in the Final EIR. See Response 5-59 regarding fugitive dust emission calculations associated with the pipeline construction.

Response 5-61

As noted in Response 5-59, the commentator's estimate of the amount of soil excavated for the pipeline substantially overestimates the actual amount of soil anticipated to be excavated for the proposed project. Based on a more refined estimated of the construction activities and emissions, the total soil disturbed at the Refinery is 7,565 cubic yards and for the pipeline installation is 10,800 cubic yards. The grading phases associated with the Refinery (months 1-3) and pipeline

construction (months 7-12) are not expected to overlap. The construction emissions have been revised in the Final EIR to reflect these changes. This modification to the EIR does not change any conclusions regarding air quality impacts nor does it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5.

Response 5-62

It is true that the entrained dust from paved roads may account for a large portion of PM10 emissions in the region. However, millions of vehicles each generating a small amount of PM10 emissions, cumulatively result in large emissions. The volume of traffic associated with the Ultramar construction activities is a very small fraction of the total traffic in the South Coast Air Basin.

Every effort is made to include supporting assumptions in the CEQA document. In the event that some of the assumptions are not apparent because hard copies of spread sheets, for example, do not necessarily show these, this and any other information is available by contacting the SCAQMD. The commentator chose not to contact the SCAQMD to request information.

The equations and assumptions used to calculate the emissions and emission factors for entrained road dust have been revised and included in Appendix B of the Final EIR. The revised emissions are based on more recent methodology developed by the U.S. EPA AP-42 Section 13.2.1. This approach is based on more recent data and the data are expected to be more representative of fugitive dust emissions associated with travel on various roadways.

Response 5-63

The SCAQMD disagrees that the entrained road dust emissions have been substantially underestimated. The emission calculations for paved and unpaved roads have been revised using more recent U.S. EPA emission factors (U.S. EPA AP-42, Section 13.2.1). The assumptions used to calculate the emission factors are now based on the estimated silt loading (using CARB data) for collector and major streets and not based on whether roadways are swept or not. Therefore, there is no need for requirements to sweep roadways.

The commentator's calculation of entrained dust is overly conservative due to assumptions regarding street sweeping and the U.S. EPA emission factors are expected to be more representative of emissions from entrained dust. These revised emission calculations, using more recent data, resulted in a decreased emission estimate for entrained road dust from paved and unpaved roadways which indicates that the emissions in the Draft EIR were actually over estimated. The revised emission calculations are included in Appendix B of the Final EIR and are estimated to be 12.1 pounds per day during the construction phase.

Response 5-64

The third party terminals are owned and operated by other entities. The available information on the third party terminals has been included in the Final EIR under Cumulative Impacts. At the time the Draft EIR was prepared, most of this information was not available and the changes to the third

party terminals were considered speculative. The Equilon Draft EIR was prepared and released about a month after the Ultramar Draft EIR was released.

Currently, Ultramar is proposing to receive ethanol from Equilon's Carson Terminal. The changes and modifications to this terminal are part of a separate EIR (Equilon Enterprises, LLC, Los Angeles Refinery, CARB Phase 3 Proposed Project, Draft EIR, July 2001). The impacts associated with the transport of ethanol into this region were included in the Equilon EIR. Further, the Equilon EIR also includes the emissions associated with transport of the entire amount of ethanol from the Carson Terminal to other terminals.

Ultramar is also proposing to use Equilon's Wilmington Terminal. The modifications to Equilon's Wilmington Terminal were included in the Equilon CARB Phase 3 Draft EIR (SCAQMD, 2001).

In addition to using Equilon's terminals, Ultramar has indicated that they may also use Kinder Morgan's Orange and Colton terminals. Based on information available to the SCAQMD, permit modifications have already been issued to Kinder Morgan for modifications to its Orange facility. Those modifications included the addition of an internal roof to an existing 12,000 bbl storage tank, a new ethanol truck unloading rack, and new pumps. Kinder Morgan has submitted permit applications to SCAQMD for its Colton facility that include changes similar to the Orange facility.

Further, it should be noted that the Draft EIR included the impacts associated with the transport of ethanol into the South Coast Air Basin and to all third party terminals. The transport of ethanol accounts for the largest portion of the project-related air quality impacts at third party terminals, including emissions from trucks and railcars (see Final EIR, Tables 4-4 and 5-2, and Appendix B).

Therefore, the available information and emissions associated with the modifications to these third party terminals have been included in the cumulative impact section of the Final EIR. With the exception of the modifications to the Equilon Carson Terminal, the modifications at the terminals are minor. The modifications to the Equilon and Kinder Morgan facilities have been included as cumulative projects in the cumulative impact analysis because the terminals are not owned or operated by Ultramar. Further, Ultramar has no control over what modifications are necessary at the terminals and often has no knowledge of those changes unless permits have been filed with a public agency. These modifications do not change any of the significance conclusions in the EIR, nor does it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5. (See also Responses 5-5 through 5-12 regarding third party terminals.)

Response 5-65

See Responses 5-59 through 5-63 regarding PM10 emissions associated with construction activities. The Draft EIR concluded that the construction emissions of CO, VOCs, and NOx were significant. The revised construction emission estimates completed for the Final EIR indicate that VOCs and NOx remain significant and that the emissions of CO, SOx and PM10 are less than significant. Therefore, feasible mitigation measures are required for VOCs and NOx, but not required for SOx and PM10. The comment regarding the inadequate mitigation measures is addressed in the following responses.

Response 5-66

It is assumed that the six criteria referred to be the commentator are the six recommendations contained in Chapter 6 of the SCAQMD CEQA Air Quality Handbook (not SCAQMD CEQA Guidelines). With the exception of criterion No. 3 (mitigation measures should be legally enforceable), these criteria are recommendations, not requirements, so even if any of these criteria are not followed, as incorrectly asserted by the commentator, this is not a violation of CEQA as implied by the commentator.

Specific responses regarding the adequacy of mitigation measures are addressed in more detail in Responses 5-67 through 5-71.

Response 5-67

The SCAQMD enters into a legally binding mitigation agreement with an applicant prior to certification of the CEQA document in order to enforce the mitigation measures. The agreement outlines the required mitigation measures, the details of the mitigation monitoring plan, and ensures that the mitigation measures can be legally enforced by the SCAQMD.

Response 5-68

There are a number of inaccurate statements in this comment. First, as noted in Response to Comment 5-66, the SCAQMD's Handbook is a guidance document and the criterion regarding monitoring is a recommendation, not a requirement. However, the control efficiencies (effectiveness) of the mitigation measure, if known, are included in the Draft EIR. It should be noted that control efficiencies have not been developed for all potential mitigation measures, as recognized in the SCAQMD's Handbook. In spite of this, some mitigation measures where the control efficiency is not known have been imposed on the project proponent, but no credit has been taken for any emission reductions associated with these mitigation measures.

Following the completion of the Draft EIR and review of the public comments, the Final EIR is prepared. A separate mitigation monitoring plan and the mitigation agreement are also prepared at that time. The CEQA Guidelines require the preparation of the mitigation monitoring plan but does not require that the monitoring plan be prepared as part of the Draft EIR. A mitigation monitoring plan will be prepared before the Final EIR is certified. Also, see Response 5-33 regarding implementation of the mitigation monitoring plan.

Response 5-69

The Draft EIR evaluated the effectiveness of the mitigation measures where sufficient data exists to assure that the mitigation measures will lead to actual emission reductions. No credit (emission reduction) was taken for mitigation measures where the effectiveness could not be demonstrated. Certain mitigation measures are expected to result in emission reductions even though the amount of the emission reductions cannot be determined, e.g., prohibit trucks from idling longer than 10 minutes. The SCAQMD still recommends the enforcement of such mitigation measures, which are

expected to provide an air quality benefit. All mitigation measures identified in the EIR will be enforced through the mitigation agreement.

Response 5-70

As noted in Response to Comment 5-66, the SCAQMD's Handbook and in the Smith citation, performance standards are recommended, not required. The performance standards are the same as the control efficiencies (for air quality mitigation measures) and the control efficiencies have been included in the Draft EIR. See Response 5-68 and 5-69 for further discussion on the performance standards and control efficiencies of the various mitigation measures.

Response 5-71

Mitigation measures A-11 requires the preparation of a fugitive dust control plan. However, the measure identifies all of the actions to be included in the plan, including in some cases, performance standards, which is precisely what the commentator advocated in comment 5-46. Further, the specific actions identified in mitigation measure A-11 are standard mitigation measures recommended in the SCAQMD's CEQA Air Quality Handbook. The SCAQMD requires the completion of the construction emission management plan prior to commencing construction activities associated with the proposed project. The only thing the construction plan will have that is not included in the Draft EIR is the specific schedules for deliverables, e.g., report on the availability of alternative fueled equipment, which is reasonable because the schedule will be based on the certification date of the Final EIR. This mitigation measure will be enforced through the mitigation agreement.

Response 5-72

The commentator's opinion that "delivery scheduling does not represent bona fide mitigation" is simply untrue. This is a standard mitigation identified in the SCAQMD's Handbook and recommended by the SCAQMD for use by other public agencies. Avoiding peak hour traffic helps prevent traffic congestion, the related idling emissions that occur with heavy traffic conditions, and reduces the time (and related emissions) that a vehicle or truck is on the road. Consolidating truck deliveries minimizes the number of truck trips and related emissions providing emission reductions. Therefore, both of these measures can result in emission reductions, even though the extent of the emission reductions is difficult to calculate. Therefore, in order to be conservative and present a "worst-case" analysis in the EIR and since the control efficiency of this mitigation measure is not known, no emission reduction credit was taken for implementing this mitigation measures.

Response 5-73

The EIR has been revised as follows: "... and prohibiting truck idling in excess of 10 minutes at the Ultramar site." Ultramar will require delivery trucks to limit idling on-site to no longer than 10 minutes. The Draft EIR did not use a two-minute idling period because limiting idling to two minutes may increase emissions from some trucks in some cases. The emission factor associated with engine start up is higher than the emission factor associated with idling. Therefore, trucks that

arrive at the site and only need to make a quick delivery and continue on (taking less than 10 minutes) would generate fewer emissions by leaving their engine on than by turning it off and then turning it back on in less than 10 minutes. However, trucks that arrive at the site and shut off their engine and take several hours to unload would generate fewer emissions by turning off their engine. Therefore, the mitigation measure was designed to limit the emissions as much as feasibly possible.

Response 5-74

The SCAQMD disagrees with the commentator's opinion that mitigation measures "are not described in sufficient detail to allow meaningful public review or implementation." The mitigation measures in the Draft EIR are based on the mitigation measures recommended in Chapter 11 of the SCAQMD's Handbook. The general comment that the mitigation measures for off-road construction equipment are inadequate is addressed in the following responses to specific comments.

Response 5-75

Like all mitigation measures imposed on the project proponent, the truck idling mitigation measure would be enforced as part of regular inspections by SCAQMD inspectors who will be provided with a copy of the mitigation monitoring plan. See Response 5-73 regarding limiting truck idling regarding the rationale for limiting idling time to 10 minutes instead of two minutes. The U.S. EPA indicates that idling trucks can burn up to one gallon of diesel fuel each hour at idle and they can idle an estimated average of eight hours a day over 300 days a year which amounts to about 2,400 gallons per year. In the National Energy Policy, the President directed the U.S. EPA and the Department of Transportation to work with the trucking industry to establish a long-term program to reduce emissions and fuel consumption from long-haul trucks at truck stops. Therefore, truck idling is a source of emissions that the U.S. EPA and DOT are looking at to control (www.epa.gov/otaq/retrofit/latestnews2.htm).

Delivery trucks can often take several hours to unload major pieces of equipment. The mitigation measure would prevent these trucks from idling during this delivery period limiting the excess consumption of fuel and the related air emissions.

Response 5-76

It is assumed that the citation (Smith 2/22/00, p.3) refers to the SCAQMD's comment letter on the County of Orange's Draft EIR No. 573 signed by Dr. Smith. Although the quote cited by the commentator is accurate, Dr. Smith went on to say in the same comment letter, "If implementation of a mitigation action is simply encouraged, and cannot be guaranteed or quantified, then credit for the emission reductions associated with that mitigation measure should not be assumed in the Draft EIR." Consistent with this comment, the SCAQMD did not assume or take any emission reduction credit for mitigation measure A-7, which discusses alternative fueled construction equipment. With regard to the availability of alternative fuel construction equipment, refer to Response to Comment 5-77.

Response 5-77

The feasibility of using electricity or alternate fuels on construction equipment is questionable, even though their use could result in emission reductions. Most heavy construction equipment cannot operate on electricity. Alternate fuels are being investigated and some show the potential for reducing emissions but they are not currently commercially available. Imposing the mitigation measure as discussed in the EIR would require Ultramar to use newer technologies if they become available.

Response 5-78

The SCAQMD CEQA Air Quality Handbook (SCAQMD 1993) recommends that emissions from electrical consumption be included as part of the proposed project emissions. Since the release of the Handbook, the SCAQMD as a lead agency has modified this policy for the following reasons: (1) SCAQMD permits for power plants are based on the maximum capacity of the facility so that additional emissions from projects that require electricity are not expected; (2) emission limitations have been placed on the air quality permits for all power plants which limit the total emissions; and (3) all power plants in the South Coast Air Basin are under regulations which limit their emissions or require offsetting emissions to comply with permit limits. Electrical generating facilities cannot exceed their emission limitations without applying for new permits, which would require additional CEQA review. Emissions from the increase in electrical demand have been included in the emissions inventory for the district. Any electricity demand from the proposed project is well within the ability of district utilities to supply without additional capacity.

The SCAQMD will only recommend the use of alternate fuels with engine classes that have been verified by CARB. This verification is required to clearly demonstrate that the use of such fuels will result in emission reductions and not increase emissions of other pollutants.

Response 5-79

The enforcement of the mitigation measure requiring that construction equipment be maintained in a tuned up condition will be developed in the mitigation monitoring plan and the mitigation agreement between the SCAQMD and the applicant. (See also Response to Comment 5-75.) It may, however, be difficult to accurately measure actual emission reductions from this mitigation measure. However, that does not mean that there are no emission benefits. A poorly tuned engine consumes more fuel and therefore, would generate additional emissions. Conversely, a well-tuned engine would consume less fuel and could lower emissions up to five percent. No specific credit or emission reductions were assumed from this mitigation measure. However, it is considered feasible mitigation under CEQA because it would reduce emissions and can be feasibly implemented. This mitigation measure is also a standard mitigation measure identified in Chapter 11 of the SCAQMD's Handbook and recommended for use by the SCAQMD.

Response 5-80

The engine timing retard will consist of two to four-degree retard and the Final EIR has been revised accordingly. It is acknowledged that timing retard results in a decrease of NOx emissions

and a corresponding increase in CO and VOC emissions and a minor energy penalty. The grams of CO and VOC per break horsepower-hour emitted from the engines, however, are considerably less than that of NO_x. The increases in CO and VOC emissions due to timing retard are negligible while the decrease in NO_x emissions is substantial. The negligible increases of CO and VOC and fuel consumption associated with timing retard would not alter any conclusion of significance and need not be further analyzed. In spite of the potential drawbacks to engine timing retard, the commentator recommends this same mitigation measure in comment 5-110.

The Draft EIR evaluated the effectiveness of the mitigation measures where sufficient data exists to assure that the mitigation measures will lead to true emission reductions. No credit (emission reduction) was taken for mitigation measures where the effectiveness could not be demonstrated. Certain mitigation measures are expected to result in emission reductions even though the amount of the emission reductions cannot be determined, e.g., engine timing retard. The SCAQMD still recommends the enforcement of such mitigation measures, which are expected to provide an air quality benefit.

Response 5-81

SCAQMD is encouraging the use of all air pollution control technologies that have been demonstrated to be effective and not result in increased emissions (e.g., through increase fuel use or reduced efficiency of the engine). The demonstration of the effectiveness of various technologies is through the U.S. EPA's or CARB's certification process. The agencies have established programs that require and verify testing data from manufacturers to assure that use of the technologies will generate air quality benefits. The GPX system has not been certified by either the U.S. EPA or CARB and, therefore, is not considered to be feasible mitigation at this time. It is presumed that the test data referenced in this comment will be submitted to CARB for review and confirmation. If the emission reductions are ultimately verified by CARB, it can be considered feasible mitigation for future proposed projects.

Response 5-82

See Response 5-78 with regard to emissions associated with electricity generation. Electricity is provided in certain portions of the Refinery but not in all portions. Electrical welders cannot be operated without an electricity supply. Therefore, there are portions of the Refinery where electric welders can be used and portions of the Refinery where electrical welders cannot be used. As noted by this commentator in other comments, all feasible mitigation measures are required to be used where significant impacts are identified. The use of electric welders would eliminate a source that uses diesel fuel resulting in fewer air emissions. Therefore, it is appropriate to require the use of electric welders where electricity is available.

Response 5-83

See Responses 5-78 and 5-82 regarding emissions associated with electricity generation.

Response 5-84

Mitigation measure A-7 has been revised in the Final EIR to replace “large” off road construction equipment with medium- and heavy-duty off-road equipment, which refer to specific engine classes. The term “significant periods” will be replaced with one month or longer.

The opinion expressed here that post combustion controls are widely used is not supported by any evidence. In fact, as part of the SCAQMD’s research during promulgation of the SCAQMD’s fleet vehicle rules (e.g., Rules 1191, 1192, 1193, 1194, 1195, 1196, and 1186.1) it was concluded that post combustion controls, in particular SCR, is not widely used and, in fact, is still in the research and development phase. Further, no SCRs have been certified for use on mobile sources by CARB or U.S. EPA. Other post combustion controls such as particulate filters are currently undergoing evaluation and certification testing by CARB. Since this type of combustion control may be available by the time construction starts at the Refinery, evaluation of the availability of this technology is a reasonable mitigation measure.

A requirement to use emission controls on diesel construction equipment was not imposed because of the uncertainty in their effectiveness, concerns regarding their commercial availability, and/or whether or not they have been certified by CARB or the U.S. EPA (see responses to specific comments below). See Response 5-32 regarding the enforceability of mitigation measures. The comment that the mitigation measures for off-road construction equipment are inadequate is addressed in the following responses.

Response 5-85

This comment reiterates the incorrect opinion previously expressed in Comment 5-51 that mitigation measure A-8 (now A-11) is not a valid mitigation. Therefore, the commentator is referred to Response to Comment 5-51.

Response 5-86

As noted in Response to Comment 5-51, all of the components of the fugitive dust emission control plan are identified in mitigation measure A-11 (formerly A-8). The actions identified in mitigation measure A-11 are standard mitigation measures identified in Chapter 11 of SCAQMD’s Handbook. Since these measures were included in the Draft EIR, the public has not been denied the chance to review them, as implied by the commentator.

Response 5-87

The commentator states that, “all six measures that would be included in the Plan are already required by SCAQMD Rule 403.” The commentator has misinterpreted Rule 403. All of the six measures, which are listed in Tables 1 or 2, would only be required to be implemented for large operations or medium operations under a contingency notification (Rule 403(f)). Construction operations at the Refinery would not be considered a large operation or a medium operation under a contingency notification. Consequently, implementing a single BACM such as watering twice per day would be required under Rule 403, as is stated in the Draft EIR. Watering a third time and

implementing the other actions in mitigation measure A-11 go beyond what is required under Rule 403.

Response 5-88

The Draft EIR concluded that the PM10 emissions during construction activities were less than significant. Revised construction emission estimates prepared for the Final EIR reach the same conclusion, i.e., the project will not result in significant PM10 emissions during the construction phase. Therefore, mitigation measures are not required for PM10 emissions (CEQA §115126(c)). Several mitigation measures (identified in mitigation measure A-11) have been imposed to ensure that no nuisance complaints occur. See also Response 5-87.

Response 5-89

The Draft and Final EIR conclude that construction emissions of VOCs, and NOx would be significant. The emissions of CO, PM10 and SOx during construction are expected to remain less than significant. See also Response to Comments 5-53, 5-56, 5-57, 5-59, and 5-61.

Response 5-90

The comment is incorrect. The Draft EIR clearly looked beyond the SCAQMD Guidelines for feasible mitigation measures (see Mitigation Measures A-5, A-6, and A-7, which are not found in the SCAQMD Guidelines). Comments regarding other mitigation measures recommended in this comment letter are further addressed in response 5-91 through 5-140.

Response 5-91

The PuriNOx fuel has been verified by CARB on January 31, 2001. As part of that process, CARB determined that the use of PuriNOx reduces NOx emissions by 14 percent and particulate matter by 62.9 percent as compared to a 10 percent aromatic heavy-duty California diesel reference fuel. The use of PuriNOx for on- and off-road heavy-duty diesel applications could be a potentially viable emission reduction approach, provided that an appropriate and verifiable mechanisms are developed to document fuel usage and hours of operation for on-road heavy duty vehicles and off-road equipment.

PuriNOx can be used in direct injection heavy duty compression ignition engines, including construction equipment. The fuel is currently being distributed in southern California by Dion and Sons, who indicate that the material is available for research and development purposes. The PuriNOx blended diesel is made in northern California and shipped to Dion & Sons for distribution. PuriNOx is probably more effective in controlling emissions from older construction equipment, rather than newer construction equipment, since older construction equipment has higher emissions than the newer equipment. Also, concerns have been raised that the fuel does not meet ASTM diesel fuel specifications and may not comply with the manufacturers warranty requirements.

Lubrizol representatives (John Gemmell 8/31/01 and Kim Jones 11/15/01) indicate that a licensing agreement with a major oil company is being finalized that will be responsible for distributing Lubrizol in southern California. A large scale batch blending unit will be installed in southern California in early December. The annual throughput of the unit is about five million gallons. Lubrizol and the oil company are currently working on a continuous blending unit that will have a throughput of 20 million gallons per year. Lubrizol representatives anticipate that PuriNOx will be commercially available in southern California by the end of 2001. PuriNOx should be used when it is commercially available. However, PuriNOx is not commercially available since the licensing agreement has not been finalized and the blending units are not installed in southern California. PuriNOx fuel currently costs about \$1.50 per gallon, about 20 cents more than conventional diesel fuels (personal communication, David Rubio, Dion and Sons).

Response 5-92

See Response 5-91 regarding the use of PuriNOx.

Responses 5-93

Fuel additives can be used to improve combustion efficiency and thereby reduce emissions. However, it is not appropriate to require the use of a specific fuel additive as part of a mitigation measure unless emission reductions for the use of that additive have been verified by CARB in specific applications. Emission testing results developed and reported by additive manufacturers are only helpful in assessing the emission reduction potential of the additive. Confirmatory testing according to CARB verification procedures is necessary to ensure that emission reductions will be attained in specific applications. Therefore, since the fuel additives, although promising, have not been certified by CARB, they are not considered to be feasible mitigation at this time. However, the mitigation measure will remain in force that requires the use of alternative fuels to the extent feasible so that should the fuel additives become feasible and commercially available it will be required to be used in construction equipment.

Responses 5-94

With regard to using Omstar as a mitigation measure, refer to Response to Comment 5-93.

Response 5-95

Ultramar will use CARB certified construction equipment for all construction equipment that requires certification by CARB. It should be noted that CARB only certifies certain types of construction equipment. The emission benefits from this mitigation measure cannot be accurately determined so no emission benefit is assumed. The mitigation measure will be specified in the mitigation monitoring program and enforced through the mitigation agreement.

Response 5-96

Ultramar will use CARB certified construction equipment for all construction equipment that requires certification by CARB. It should be noted that CARB only certifies certain types of

construction equipment. The emission benefits from this mitigation measure cannot be accurately determined so no emission benefit is assumed. It should be noted that construction equipment companies contacted indicated that the turnover of construction equipment was closer to 20 years than two to three years. The mitigation measure will be specified in the mitigation monitoring program and enforced through the mitigation agreement.

Response 5-97

The PM10 emissions associated with the construction phase of the proposed project are less than significant so that mitigation measures for PM10 emissions are not required. It is recognized that post-combustion controls are a potentially viable approach to reduce construction emissions. However, these controls must be verified by CARB to ensure that real emission reductions are attained through their use. Two particulate traps have been verified by CARB for use on specified on-road engine models. Due to differences in the engines between on-road and off-road engines, CARB will need to verify that the particulate traps also are effective in controlling emissions from off-road engines before they can be considered feasible mitigation.

Response 5-98

See Response 5-97 regarding the use of particulate traps for emission control. As noted in the comment, the control efficiencies for some particulate traps vary greatly from zero percent to 83 percent. CARB will need to verify that the particulate traps also are effective in controlling emissions from off-road engines before they can be considered feasible mitigation.

Response 5-99

See Response 5-97 regarding the use of particulate traps for emission control. Due to differences in the engines between on-road and off-road engines, CARB will need to verify that the particulate traps also are effective in controlling emissions from off-road engines before they can be considered feasible mitigation. The control efficiencies of the technologies (particulate traps and catalytic converters) referenced in this comment have not been verified by CARB. Note that the Port engine retrofit projects referenced in this comment are voluntary programs and not regulatory mandates.

Response 5-100

PM10 emissions from the proposed project are less than significant so no mitigation measures are required for PM10 emissions. See Response 5-97 regarding the use of particulate traps for emission control. Due to differences in the engines between on-road and off-road engines, CARB will need to verify that the particulate traps also are effective in controlling emissions from off-road engines before they can be considered feasible mitigation. The control efficiencies of the technologies referenced in this comment have not been verified by CARB.

Note that the retrofit of a bus fleet in San Diego did not qualify as mitigation for the ARCO Carson Refinery Clean Fuels Project because emission reductions in San Diego do nothing to mitigate regional air quality impacts in the Basin generated by ARCO project.

Response 5-101

PM10 emissions from the proposed project are less than significant so no mitigation measures are required for PM10 emissions. The projects referenced in this comment were large power plant projects that required extensive grading and construction activities. Therefore, the PM10 emissions were considered significant and mitigation measures were required. These power plant projects are not comparable to the minor construction activities required as part of the Ultramar proposed project. See Response 5-97 regarding the use of particulate traps for emission control. Due to differences in the engines between on-road and off-road engines, CARB will need to verify that the particulate traps also are effective in controlling emissions from off-road engines before they can be considered feasible mitigation. The control efficiencies of the technologies referenced in this comment have not been verified by CARB.

Response 5-102

PM10 emissions from the proposed project are less than significant so no mitigation measures are required for PM10 emissions. The project referenced in this comment is a huge transportation construction project that would build about 161 miles of highway in the Boston area. This transportation project is not comparable to the minor construction activities required as part of the Ultramar proposed project. See Response 5-97 regarding the use of particulate traps for emission control. Due to differences in the engines between on-road and off-road engines, CARB will need to verify that the particulate traps also are effective in controlling emissions from off-road engines before they can be considered feasible mitigation. The control efficiencies of the technologies referenced in this comment have not been verified by CARB.

Response 5-103

See Response 5-81 regarding the determination of feasible mitigation measures. The use of SCR as NOx emission control strategy for heavy-duty diesel applications is still under research and development and is not commercially available for application on heavy duty diesel engines at this time. Further, CARB has not verified emission reductions associated with SCR on heavy-duty engines. Until this occurs, the emission reductions associated with the use of this technology are uncertain and SCR for construction equipment is not considered to be feasible mitigation under CEQA. Additionally, the potential hazard impacts associated with such mitigation would need to be considered.

Response 5-104

PM10 emissions are not significant so that PM10 mitigation measures (e.g., particulate traps) are not required (CEQA §115126(c)). Further, see Response 5-97 on particulate traps and 5-103 regarding SCR. The mitigation monitoring plan will include measures to assure implementation of mitigation measures. The monitoring plan will require reports from the project proponents to the SCAQMD on progress of implementing the specific mitigation measures. The mitigation measures will be enforced through a legally binding agreement between the project proponent and the SCAQMD.

See Response 5- 45 regarding the ARCO bus fleet project.

Response 5-105

The Draft EIR included feasible mitigation measures, as required by the CEQA guidelines. The Responses 5-106 through 5-113 respond to each of the individual mitigation measures suggested by this comment.

Response 5-106

Limiting the hours of operation would reduce the emissions on a daily basis but would extend the construction period; total emissions from construction would remain the same. Ultramar is required by state law to comply with the CARB Phase 3 requirements by December 31, 2002. Limiting the hours of operation and extending the construction period is not considered feasible mitigation since it could cause Ultramar to violate the state mandated compliance dates. For example, the maximum NOx emissions are about 240 lbs/day and the significance threshold is 100 lbs/day. The construction equipment would need to be cut back by about 60 percent to meet the significance threshold. This would be expected to more than double the construction period. Since the construction period at the Refinery is expected to take about 16 months (see Figure 2-8 and Appendix B of the Final EIR), a doubling of the construction period to about 32 months would cause Ultramar to miss the December 31, 2002 compliance date.

Response 5-107

A mitigation measure will be added that prohibits construction activities during stage one smog alerts.

Response 108

Limiting the hours of operation would reduce the emissions on a daily basis but would extend the construction period and have no effect on total emissions. Ultramar is required by state law to comply with the CARB Phase 3 requirements by December 31, 2002. Limiting the hours of operation and extending the construction period is not considered feasible mitigation since it could cause Ultramar to violate the state mandated compliance dates.

Response 5-109

A mitigation measure to require the minimize size of construction equipment has been added to the Final EIR

Response 5-110

Mitigation measure A-4 in the Draft EIR is as follows: “Maintain construction equipment tune up and retard diesel engine timing.” Mitigation measure A-4 will be revised as follows: “Maintain construction equipment tuned up with two to four degree retard diesel engine timing.

Response 5-111

State law specifically prohibits the SCAQMD from requiring carpooling; therefore, SCAQMD is prohibited from imposing this as a mitigation measure. Carpooling may occur, but on a voluntary basis. A lunch truck will come to the construction site, and due to a brief lunch period (usually 30 minutes), workers usually stay on-site during the lunch period.

Response 5-112

Regarding lengthening the construction period, see Response 5-106.

Response 5-113

Per the requirements of SCAQMD Rule 1304(c)(4), offsets are not required for projects that are needed to comply with state or federal regulations. The proposed project is required to comply with CARB Phase 3 gasoline requirements so emission offsets are not required.

The use of offsets has been suggested as mitigation for all or a portion of the emissions from the project. Offsetting is an element of new source review, a program required pursuant to Title I of the federal Clean Air Act (42 U.S.C Sections 7502, 7503 and 7511(a)). The California Clean Air Act also has such requirements. New source review is designed to assure that the impact of new stationary sources have minimal impact on the air quality of a region. New and modified stationary sources are required to implement BACT (or the equivalent, lowest achievable emission rate (LAER), for federal purposes), if a BACT limitation has been established for the source category, and to provide emission reduction credits (ERCs) to "offset" the emissions that will occur from that source.

The purpose of offsetting, is to maintain a "no net increase" in emissions from stationary sources (Health & Safety Code, Sections 40918, 40910, and 40921.5). Offsetting is accomplished through application of ERCs. ERCs are generated by several means. Owners/operators at facilities in need of offsets can shut down or over control equipment on-site to generate offsets or they can purchase ERCs from other facilities that have generated excess ERCs through shut downs or over control of equipment. Air pollution control districts are required to establish, by rule, a system to implement offsetting requirements. This system is subject to disapproval by the state board (Health & Safety Code Section 40709). Hence, the SCAQMD does not have the authority to utilize ERCs without an approved rule. The SCAQMD established its offsetting requirements through its Regulation XIII, New Source Review. The SCAQMD submitted this program to CARB, as required by California law, to be reviewed to determine it complies with state and federal requirements (Health & Safety Code Section 41500). CARB reviewed this program, determined it to be adequate, and submitted the rule to U.S. EPA for further review.

The SCAQMD generally recommends against using ERCs as CEQA mitigation because ERCs are generated specifically to support the SCAQMD New Source Review program (Regulation XIII) offsetting requirements in Rule 1303. The SCAQMD generally recommends using emission reductions from over control as CEQA mitigation if they are generated at the site in need of mitigation and they must be generated within a reasonable timeframe, either before or after the

impact occurs (contemporaneously). The guiding principle regarding mitigation measures is CEQA Guidelines §15126.4(a)(4)(A), which states, “There must be an essential nexus (i.e., connection) between the mitigation measure and a legitimate government interest (Nolan v. California Coastal Commission 483 U.S. 825 (1987)). According to Remy, et al. (1999), “. . . agencies should forego the temptation to try to force an applicant to provide a generalized public benefit unrelated to those impacts or that would do more than fully mitigate the impacts of interest.”

The SCAQMD general recommends against using purchased ERCs as CEQA mitigation because they do not necessarily mitigate localized impacts to receptors in the vicinity of the facility where the impacts are being generated. Historically, the SCAQMD allowed using purchased VOC ERCs as CEQA mitigation, as long as the VOCs are not air toxics. The reason for this is that VOCs are a precursor to ozone, which is a pollutant of regional concern. Since VOCs do not create localized impacts, VOC offsets generated anywhere in the Basin (within the constraints of trading zone requirements, Rules 1303(b)(3) and 2005(e)) would be expected to produce regional ozone benefits. Consequently, SCAQMD's policy allowing the use of VOC ERCs as CEQA mitigation is consistent with CEQA Guidelines §15126.4(a)(4)(A) and reduces the regional impact created by the facility.

Response 5-114

The reference to the six measures required by SCAQMD regulations is incorrect. See Response 5-87 for further clarification.

Response 5-115 through 5-140

The Draft EIR concluded that the PM10 emissions during construction activities were less than significant. Revised construction emission estimates prepared for the Final EIR reach the same conclusion, i.e., the project will not result in significant PM10 emissions during the construction phase. Therefore, additional mitigation measures such as those suggested in comments 5-116 through 5-140 are not required for PM10 emissions and specific comments on mitigation of PM10 emissions will not be further addressed.

Response 5-141

This comment summarizes the specific statements in comments 5-142 through 5-146. The specific responses to these comments are addressed in Responses 5-142 through 5-146.

The U.S. EPA, Office of Mobile Sources was contacted during the preparation of the Draft EIR regarding the most appropriate emission factors to use to calculate emissions from locomotive engines. The U.S. EPA (Greg Janssen, U.S. EPA, OTAQ) suggested the use of the emission factors for locomotive engines that was used in the Ultramar Draft EIR.

The U.S. EPA has established emission standards for NO_x, VOCs, CO, particulate matter, and smoke for newly manufactured and remanufactured diesel-powered locomotives and locomotive engines, which have previously been unregulated. Three separate sets of emissions standards have

been adopted with applicability of the standards dependent on the date a locomotive is first manufactured. The first set of standards (Tier 0) apply to locomotives and locomotive engines originally manufactured from 1973 through 2001. The second set of standards (Tier 1) apply to locomotives and locomotive engines originally manufactured from 2002 through 2004. The final set of standards (Tier 2) apply to locomotives and locomotive engines originally manufactured in 2005 and later.

In support of the rulemaking finalizing the locomotive emission standards, the U.S. EPA has estimated average emission rates, given in grams per brake horsepower-hour (g/bhp-hr), for current uncontrolled locomotives. These emission factors (converted to grams per gallon of fuel consumed) were used in the Draft EIR for Ultramar (see Final EIR, page B-25).

Response 5-142

The Draft EIR included emission calculations for locomotive engines in California and correctly broke down the emissions within the South Coast Air Basin and outside the South Coast Air Basin. Emissions outside the South Coast Air Basin are not expected to be significant because the emissions would be limited to locomotive engines and the other basins do not have the extreme air quality problems experienced in South Coast Air Basin. Nonetheless, the Draft EIR still included all railcar emissions generated by the proposed project in California.

Response 5-143

The comment that the wrong fuel efficiency was used in the calculation of railcar emissions is incorrect. The route that a railcar takes into the southern California can vary and is based on the scheduling from the railroad company. Ethanol can be delivered from the east via the Cajon Pass, from the east along the Interstate 10 freeway, or from the north. In any case, using the average fuel efficiency provides a reasonable estimate of the air emissions because the direct route into the basin is uncertain. While it may take more fuel to move a ton-mile of freight up a hill, it also takes less fuel to move the same freight down the hill. Using the average emission factor accounts for these variations along the route and is appropriate for estimating emissions associated with the proposed project.

Response 5-144

The route that a railcar takes into the southern California can vary and is based on the scheduling from the railroad company. Ethanol can be delivered from the east via the Cajon Pass, from the east along the Interstate 10 freeway, or from the north. In any case, using the average statewide fuel efficiency (401 ton-mile/gal) for emission calculations provides a reasonable estimate of the air emissions because the route taken into the basin is uncertain. While it may take more fuel to move a ton-mile of freight up a hill, it also takes less fuel to move the same freight down the hill. Using the average emission factor accounts for these variations along the route and is appropriate for estimating emissions associated with the proposed project.

Even if the fuel efficiency of 262 ton-mile/gallon were used to calculate railcar emissions, the significance conclusion in the Final EIR would not change, i.e., the proposed project emissions of

VOC and NOx would be significant and the emissions of CO, SOx and PM10 would be less than significant. Revisions to the railcar emission calculations would not change any of the significance conclusions in the EIR, nor would it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5.

Response 5-145

The sentence referenced in this comment will be removed in the Final EIR.

Response 5-146

The commentator's assertion that SOx emissions from locomotives are underestimated is incorrect. The calculation of the sulfur content in the diesel fuel in this comment is incorrect. The Draft EIR assumed a sulfur content of 0.25 percent, which is within the range recommended in this comment. The correct sulfur content in diesel fuel is calculated as follows:

$$\text{S content} = (0.0375 \text{ lbs SO}_2/\text{gal})(32 \text{ lb S}/64 \text{ lb SO}_2)/[(0.9)(8.43 \text{ lbs}/\text{gal})] \times 100 = 0.25\%$$

The calculation of the sulfur content in the comment used 62.4 lbs/gal, which is incorrect. The correct conversion is 62.4 lbs/ft³ or (62.4 lbs/ft³) (1 ft³/7.4805 gal) = 8.43 lbs/gal. Based on this corrected conversion factor the emissions associated with a sulfur content of 0.4 percent are calculated as followed:

$$\text{SOx emissions} = 0.06 \text{ lbs}/\text{gallon} \times 5,1782 \text{ gallons per year} = 3,107 \text{ lbs per year or about } 8.5 \text{ lbs}/\text{day}.$$

Therefore, even if a higher sulfur content were assumed in diesel fuels, the emissions of SOx are expected to remain less than significant.

Response 5-147

The SCAQMD currently recommends that mobile source emissions be calculated using the EMFAC2000 emission factors. These emission factors are more current than those in the SCAQMD CEQA Handbook.

The EMFAC2000 emission factors include emission factors for CO, VOC, NOx, and PM10. The EMFAC2000, and the SCAQMD CEQA Handbook do not include emission factors for SOx from automobiles, light duty trucks, or heavy diesel trucks. In general, the emissions of SOx emissions from mobile sources have been drastically reduced due to emission controls and reformulated fuels. The model represents the most accurate data available. SOx emissions from mobile sources (gasoline powered vehicles) are generally very low so that the SCAQMD does not require SOx emission estimates from these mobile sources.

The SOx emission factor for construction vehicles is not appropriate for estimating emissions from on-road vehicles. On-road diesel engines are regulated and required to meet different standards than off-road vehicles. Additional data were found on SOx emission factors from heavy diesel

trucks. SO_x emissions from heavy duty trucks were estimated using emission factors developed by the CARB in the EMFAC2000 model, which provides the most recent data for estimating mobile source emissions. The CARB data provides a SO_x emission factor for heavy diesel trucks (0.14 grams/mile). The SO_x emission factor for worker vehicles and light duty trucks is zero. The estimated SO_x emissions from heavy diesel trucks associated with the proposed project is less than one pound per day (3,000 miles x 0.14 grams/mile x 1 lb/453.6 grams = 0.93 lbs/day) which does not impact the air quality significance conclusions.

Response 5-148

Entrained PM₁₀ emissions have been revised in the Final EIR using the more recent U.S. EPA AP42 emission factors. The resulting emission estimates indicated that the PM₁₀ emissions were overestimated and the PM₁₀ significance threshold is not expected to be exceeded. The following responses provide specific answers to each comment regarding errors and omissions in the calculation of PM₁₀ emissions.

Response 5-149

The Draft EIR included entrained road dust PM₁₀ emissions (see page B-16) from trucks traveling to/from the Refinery. The additional entrained road dust emissions associated with the transport of ethanol have been included in the Final EIR. Revised assumptions and emission factors have been used per similar comments on the entrained road dust associated with construction traffic. The revised PM₁₀ emissions in the Final EIR are 39.7 lbs/day (as compared to 40 lbs/day in the Draft EIR). These modifications do not change any of the significance conclusions in the EIR, nor does it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5.

Response 5-150

The emission calculations for paved and unpaved roads have been revised using more recent U.S. EPA AP42 emission factors. The assumptions used to calculate the emission factors are now based on the estimated silt loading (using CARB data) for collector and major streets and not based on whether roadways are swept or not. These revised emission calculations, using more recent data, resulted in a lower emission estimate for entrained road dust from paved and unpaved roadways which indicates that the emissions in the Draft EIR were over estimated.

Response 5-151

The Final EIR (cumulative impact section) has been revised to include data on third party terminals. These modifications do not change any of the significance conclusions in the EIR, nor does it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5.

Ethanol for use by Ultramar is expected to be delivered to the Equilon Carson terminal and transported via truck to other terminals. The impacts associated with the Equilon Carson terminal were included in the Draft EIR for the Equilon Enterprises LLC, Los Angeles Refinery, CARB

Phase 3 Proposed Project, released in July 2001 for public review. The emissions associated with the transfer of ethanol from railcars into storage tanks and from storage tanks into tanker trucks were estimated in that Draft EIR. Since the Equilon Draft EIR was released after the release of the Ultramar Draft EIR for public comment, the detailed information on that project was not available to include in the Ultramar Draft EIR. However, the Equilon Draft EIR included the Ultramar project under Cumulative impacts. It should be noted that the Ultramar Draft EIR included the impacts associated with the transport of ethanol into the South Coast Air Basin and to all third party terminals. The transport of ethanol accounts for the largest portion of the project-related air quality impacts at third party terminals, including emissions from trucks and railcars (see Final EIR, Tables 4-4 and 5-2, and Appendix B).

The comment incorrectly assumes that vapor systems must be designed to meet 0.08 pounds of VOC per 1000 gallons under Rule 462. Instead the vapor system must be designed to meet the best available control technology guidelines. The use of an afterburner system that is 95 percent efficient is considered BACT. The total estimated VOC emissions from the loading of 30,000 barrels of ethanol per day at the Equilon Carson Terminal was 16.59 lbs/day. Therefore, the loading of 5,000 lbs of ethanol associated with that portion of the ethanol that is Ultramar's would be about 2.8 lbs/day. These emissions are "mitigated" or minimized through the use of BACT, which, by definition, is equipment with the lowest achievable emission rates.

Response 5-152

See Response 5-78 regarding emissions associated with the generation of electricity.

Response 5-153

Ultramar is located in the LADWP service area and increased demand is expected to be a maximum of two megawatts (see Appendix A, Notice of Preparation, Page 2-11), which can be supplied by LADWP without building new electrical production capacity. The Notice of Preparation concluded that the electrical requirements of the proposed project were less than significant. (Note that the Harbor Cogeneration Facility is located adjacent to the Ultramar Refinery).

Response 5-154

With regard to calculating indirect emissions from electricity generation facilities, see Response 5-78.

Response 5-155

As the commentator implies in comment 5-154 and consistent with CEQA (Public Resources Code §§21000 et seq.), a CEQA analysis applies only to projects and potential environmental impacts in California. The air quality analysis need not consider impacts that occur outside of California.

Even though some mitigation measure may increase demand for electricity, this increased demand is minor and well within the capacity of LADWP to supply. Further, as noted in Response 5-78,

since electricity generation emissions are capped through existing SCAQMD regulations, increased electricity demand from the proposed project is not expected to require an increase in generating capacity in the Basin.

Response 5-156

Page B-13 evaluated the roundtrip emissions of trucks to the Refinery (only), i.e., an additional 10 trucks per day are expected to/from the Refinery. This will correspond to 20 truck trips and this page has been revised to show 20 truck trips instead of 10.

Page B-16 assumes the same 10 truck trips to/from the Refinery. This page has been revised to include the 30 truck trips associated with ethanol transportation with an average mileage of 32 miles (960 miles/30 trucks).

These modifications do not change any of the significance conclusions in the EIR, nor does it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5. (See Response 5-159 regarding emission calculations).

Response 5-157

The distance from Carson to Orange on page B-15 was incorrectly stated as eight miles in the Draft EIR. This page has been revised to accurately reflect the distance between the terminals (about 28 miles), which increased the total daily mileage to/from the Carson and Orange Terminals from 160 miles/day to 560 miles/day. These modifications do not change any of the significance conclusions in the EIR, nor does it constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines §15088.5. (See Response 5-159 regarding emission calculations).

Response 5-158

Page B-14 has the correct number of truck trips associated with the transport of ethanol, i.e., 30 trucks per day and the mileage to each terminal is also correct. The total miles traveled represents one-way mileage. However, the emission calculations on page B-15 assumed that each truck would generate two trips per day. Therefore, the emission calculations assumed round-trip truck mileage and not one-way trips as asserted by the commentator.

The hazards associated with the transportation of ethanol were based on one-way truck trips because ethanol would only be contained within the truck one-way on the trip to the terminal. The truck would be unloaded at the terminal and return empty so there would be no hazards associated with the transportation of ethanol on the return trip.

Response 5-159

The errors described in responses 5-156 and 5-157 increase CO emissions from 230 to 325 lbs/day and NOx emissions from 175 to 213 lbs/day. These errors do not cause any new significant impacts that were not addressed in the Draft EIR.

Response 5-160

The SCAQMD strongly disagrees with the commentator's opinion that air toxic emissions were underestimated. The toxic emission estimates are described in the Draft EIR, Volume II, pages 7-8. The toxic emissions for each source are shown in Appendix C, the ACE2588 Output files. As stated in the Draft EIR, Volume I, page 4-14, the VOC speciations are contained in the most recent Air Toxic Inventory Report (ATIR) (September 2000). The comment that the toxic emissions are under estimated is addressed in Responses 5-161 through 5-164 below.

Response 5-161

The HRA prepared for the Draft EIR included all modifications to stationary source emissions at the Refinery.

The toxic emissions associated with the arrival of ethanol at the Equilon Carson Terminal were evaluated in the Equilon CARB Phase 3 Draft EIR. The cancer risk to the maximum exposed individual resident was estimated to be about 0.3 per million associated with the unloading and storage of a total of 30,000 barrels per day of ethanol which is less than significant. The cancer risk to the maximum exposed individual worker was estimated to be 0.06 per million. The acute and chronic hazard indices were both well below 1.0 (0.0017 and 0.0005, respectively). Therefore, no significant impacts associated with toxic air contaminants were identified.

Additional information has been included in the cumulative section of the Final EIR regarding the health effects associated with modifications to the third party terminals. See Response 5-162 for the response to emissions from trucks and trains.

Response 5-162

CARB has listed diesel exhaust as a toxic air contaminant and a discussion of this was included in the Draft EIR (see page 4-22).

The proposed project will lead to increased emissions of diesel exhaust particulate matter from onsite construction equipment and diesel-fueled truck exhaust and from off-site diesel truck exhaust during construction. An Advisory Committee was formed to advise the CARB staff in its preparation of an assessment of the need to further control toxic air pollutants from diesel-fueled engines. The Risk Management Subcommittee was formed to identify the: (1) operating parameters; (2) emission factors; and (3) modeling methodologies recommended for estimating human health risks from diesel-fueled engines. This information will be used by the Subcommittee to develop the scenarios to evaluate the risks associated with exposure to diesel particulate emissions. The SCAQMD is waiting for this guidance before initiating a quantitative risk analysis for diesel particulate emissions.

Significant impacts associated with exposure to diesel particulate emissions are not expected during construction activities. As listed in Table 4-3 of the Final EIR, the highest construction related on-site and off-site diesel exhaust particulate matter emissions is estimated to be 13 and less than one pound per day, respectively, at the Refinery. These emissions are expected to cease within about

one year. The emissions associated with construction at the terminals would be less than emissions associated with construction at the Refinery (see Table 4-3). Therefore, long-term exposure to construction-related diesel exhaust particulate matter that could result in significant cancer risks to sensitive populations is not expected.

Significant impacts associated with exposure to diesel particulate emissions are not expected during operation of the proposed project. Total truck exhaust PM10 emissions from the 150 trucks are estimated to be 23 pounds per day (from the Equilon terminal associated with the transport of 30,000 barrels per day of ethanol, of which only about 30 trucks are associated with Ultramar), which would occur over a total distance of about 7,770 miles. The maximum emissions at any single location will occur in the vicinity of the Carson Terminal, because all of the trucks will leave that location. The emission rate for one truck at a speed of 25 mph is about 0.6 grams per mile. Therefore, the total emissions from 150 trucks per day (300 truck trips) travelling over the one-quarter mile into and out of the terminal would be about 45 grams per day or about 0.1 pound per day. Therefore, significant cancer risks associated with exposure to diesel particulate emissions are not expected.

Response 5-163

The emissions from the Light Ends Recovery Unit/ Naphtha Hydrotreater modifications are sulfur compounds that are treated in the Mercaptan Treater Unit. Hydrogen sulfide emissions from fugitive emissions in the Light Ends Recovery Unit/Naphtha Hydrotreater and Mercaptan Treater are expected to be less than 0.5 lbs/year. Storage tank commodity changes account for a decrease of over eight lbs/year. The amount of increase in fugitive emissions is very small in comparison to the hydrogen sulfide decrease from the tank commodity changes. Therefore, the overall project emissions result in a decrease of hydrogen sulfide. As stated in the Draft EIR, Volume I, page 2-14, the Mercaptan Treater removes sulfur compounds (i.e., mercaptans) from the overhead stream not hydrogen sulfide.

Response 5-164

The changes in tank service include MTBE tanks as well as other gasoline blend stock commodity changes and throughputs. The changes in tank service include commodity and throughput changes that lower VOC emissions and, therefore, lower the amount of TAC emitted including naphthalene.

Response 5-165

The Draft EIR concluded that VOC and NO_x emissions are significant. Revisions to the operational emissions have been included in the Final EIR; however, these revisions did not result in substantial changes to any significance conclusions. Operational emissions of SO_x and PM10 from the proposed project remain less than significant. Mitigation measures for VOCs and NO_x are discussed in the Draft EIR (see page 4-19 through 4-20). Specific responses to comments are further discussed in Response 5-166 through 5-169.

As discussed in the Draft EIR, the proposed project is expected to result in a decrease of about nine marine vessels per year (see Table 4-5). The estimated emission reductions associated with the

marine vessels include 1,670 lbs/yr of CO, 679 lbs/yr of VOC, 18,063 lbs/yr of NO_x, 23,176 lbs/yr of SO_x, and 3,193 lbs/yr of PM₁₀. The reduction in marine vessel emissions partially offsets the emission increases, although no credit is taken for this emission reduction. In addition, CARB estimates that large mobile source emission reductions from the use of the Phase 3 reformulated fuels will produce regional air quality benefits. CARB estimates that the use of Phase 3 reformulated gasoline will result in emission decreases of about 19 tons per day of NO_x in 2005 and about a seven percent reduction in potency-weighted toxic emissions over the CARB Phase 2 reformulated gasoline. These projected mobile source emission reductions will produce human health benefits.

Response 5-166

In general, the SCAQMD identified all feasible measures that would mitigate impacts from the proposed project in the same timeframe and that would benefit the same general area that would otherwise be affected by the proposed project. With regard to implementing other feasible mitigation measures, see Responses 5-42, 5-166, 5-167, and 5-168 regarding the potential to mitigate project emissions with “dissimilar” emissions. See Response 5-43 regarding the control of VOC emissions at the Refinery. See Responses 5-44, 5-172, 5-173, 5-174, 5-175, and 5-176 regarding the control of NO_x emissions. See Response 5-45 regarding the control of emissions outside of the South Coast Air Basin. See Response 5-46 regarding other available mitigation measures. See Response 5-48 regarding the control of NO_x emissions at sources other than the Refinery. See Responses 5-97, 5-98, 5-99, 5-100, 5-101, 5-102, 5-103, and 5-104 regarding the use of post combustion controls. See Responses 5-177 through 5-183 regarding the retrofit of off-road mobile sources. See Responses 5-184 and 5-185 regarding the use of low sulfur diesel.

The guiding principle regarding mitigation measures is CEQA Guidelines §15126.4(4)(A) which states, “There must be an essential nexus (i.e., connection) between the mitigation measure and a legitimate government interest (Nolan v. California Coastal Commission 483 U.S. 825 (1987)). According to Remy, et al. (1999), “. . . agencies should forego the temptation to try to force an applicant to provide a generalized public benefit unrelated to those impacts or that would do more than fully mitigate the impacts of interest.”

Response 5-167

Most of the emission sources at the Ultramar Refinery have been subject to BACT, since Ultramar was built during the 1970’s. Therefore, emission sources at the Refinery are already strictly regulated and emissions are much lower than other refineries in the district. Further, emissions sources at the Refinery are already heavily regulated by source specific rules (i.e., SCAQMD Regulation XI), including Rule 1149 (tanks), Rule 1176 (sumps), Rule 1173 (pumps, compressors, valves, vents, and flanges), and Rule 1109 (refinery heaters and boilers). See also Response 5-171 through 5-185 regarding feasible mitigation measures.

Response 5-168

See Response 5-165 regarding emission estimates associated with the proposed project. Marine vessel emission reductions partially offset project operational emissions. In addition, CARB has

determined that large mobile source emission reductions from the use of the Phase 3 reformulated fuels will produce regional air quality benefits. CARB estimates that the use of Phase 3 reformulated gasoline will result in emission decreases of about 19 tons per day of NOx in 2005 and about a seven percent reduction in potency-weighted toxic emissions over the current fuel. These projected mobile source emission reductions will produce human health benefits.

Note that the retrofit of a bus fleet in San Diego did not qualify as mitigation for the ARCO Carson Refinery Clean Fuels Project because emission reductions in San Diego do nothing to mitigate regional air quality impacts in the South Coast Air Basin generated by ARCO project.

Response 5-169

CEQA Guidelines §15040(b) states, “CEQA does not grant an agency new powers independent of the powers granted to the agency by other laws.” As stated in the Draft EIR the SCAQMD has no authority to regulate railcar emissions. With regard to implementing other feasible mitigation measures, see Responses 5-42, 5-166, 5-167, and 5-168 regarding the potential to mitigation project emissions with “dissimilar” emissions. See Responses 5-43 regarding the control of VOC emissions at the Refinery. See Responses 5-44, 5-172, 5-173, 5-174, 5-175, and 5-176 regarding the control of NOx emissions. See Response 5-45 regarding the control of emissions outside of the South Coast Air Basin. See Response 5-46 regarding other available mitigation measures. See Response 5-48 regarding the control of NOx emissions at sources other than the Refinery. See Responses 5-97, 5-98, 5-99, 5-100, 5-101, 5-102, 5-103, and 5-104 regarding the use of post combustion controls. See Responses 5-177 through 5-183 regarding the retrofit of off-road mobile sources. See Responses 5-184 and 5-185 regarding the use of low sulfur diesel.

Response 5-170

See Responses 5-67 and 5-165 regarding the mitigation monitoring program.

Response 5-171

The proposed project will be required to install BACT, which, by definition, is control equipment with the lowest achievable emission rate. In addition, the fugitive components will be required to be included in inspection and maintenance program to ensure that the equipment is properly maintained. Therefore, additional VOC emission reductions were not considered feasible. CEQA does not require sources to research and develop new technologies to reduce emissions.

See Responses 5-91 and 5-92 regarding the use of PuriNOx. See Responses 5-93 and 5-94 regarding the use of fuel additives. See Responses 5-95 and 5-96 regarding the use of CARB certified construction equipment. See Responses 5-97, 5-98, 5-99, 5-100, 5-101, and 5-102 regarding the use of post-combustion controls. See Response 5-103 regarding the use of SCR on construction equipment. See Responses 5-106, 5-107, 5-108, and 5-112 regarding limiting regarding limiting the hours of operation of construction equipment. See Response 5-109 regarding limiting the size of engines used in construction equipment. See Response 5-110 regarding engine timing retard. See Response 5-111 regarding the use of carpools for construction

workers. See Response 5-113 regarding the use of offsets for construction emissions. See Response 5-165, 5-166, 5-167, and 5-168 regarding mitigation measures for operational sources.

The emission reductions associated with the use of SCR and SCONOx on mobile sources have not been verified by CARB. The emission benefits of this technology on trucks, ships, locomotive engines have not been demonstrated and are not considered to be feasible mitigation at this time.

Response 5-172

Although it is true that there are numerous other emission sources in the district, reducing emissions from these other emission sources does not necessarily constitute feasible mitigation because they are not owned or controlled by the project proponent. Indeed, the state legislature has acknowledged the difficulty for refineries to minimize potential adverse environmental impacts from CARB Phase 3 reformulated gasoline projects that are not within the control of the refineries. Public Resources Code §21178(g) states, "No environmental impact report shall include a discussion of a 'no project' alternative, nor shall it include a discussion of any alternative sites for the project that are outside of existing refinery boundaries." Since an alternative site analysis is typically recognized as one means of reducing potential adverse impacts from a project, by not requiring such an analysis, the state legislature recognized the difficulty in mitigation impacts not within the refineries' control, i.e., "outside of existing refinery boundaries." See also Response 5-166 regarding the CEQA requirement for a nexus to exist between a significant adverse environmental impact and mitigation.

Response 5-173

As noted in Response 5-172, reducing emissions from equipment, e.g., diesel generators not operated by or within the control of the Refinery owners/operators may not be feasible. Further, many diesel generators are either controlled or are part of regulatory programs subject to regulatory control, e.g., Rule 1110.2 and RECLAIM regulations (Regulation XX), so would not necessarily be available for retrofitting.

Response 5-174

The types of equipment recommended for additional control in this comment, refinery boilers (Rule 1109) and small boilers, heaters, steam generators, etc. (Rule 1146) would be considered NOx emission sources that contribute to Ultramar's facility-wide emissions allocation that is already subject to declining annual allocations under the SCAQMD's RECLAIM program (Regulation XX). Emission reductions from this equipment may be necessary to contribute to complying with Ultramar's ending allocation and, therefore, may not be available at this time as feasible mitigation for CEQA (since it would already be required by rules/regulations).

Response 5-175

Regarding further control of refinery boilers using low NOx burners, see Response 5-174,

Response 5-176

The SCAQMD is aware of the potential NO_x control efficiency of SCR as it is considered BACT by the SCAQMD and LAER by the U.S. EPA. Consequently, it is not surprising that SCR would be used on the equipment described by the commentator to comply with federal LAER requirements. The SCAQMD does not consider complying with existing rules, regulations, laws, etc., as feasible CEQA mitigation as this would be required for project approval.

Response 5-177

The SCAQMD is aware of the guidance provided by the U.S. EPA regarding mobile source emission reduction credits (MSERCs). The SCAQMD has developed its own rules regarding the development and use of MSERCs. The development of the Otay Mesa Power Plant in San Diego required the development of offsets to comply with new source review regulations and to allow the issuance of a permit to construct/operate. The difference between the Otay Mesa project and the Ultramar proposed project is that offsets are not required for the Ultramar proposed project to comply with New Source Review requirements. In fact, the Ultramar proposed project is exempt from requiring offsets (SCAQMD Rule 1303 and Regulation XX).

CEQA Guidelines §15040(b) states, “CEQA does not grant an agency new powers independent of the powers granted to the agency by other laws.” The SCAQMD has no authority to control marine vessel emissions, nor does it have regulatory authority over rail emissions. As a result, the SCAQMD has no authority to require a mitigation measure to control emissions from these sources. Further, since neither the SCAQMD nor Ultramar own and control off road marine or locomotive sources, the SCAQMD cannot require these sources be retrofit or their engines replaced. Also see Response 5-172 regarding mitigation measures outside of the Refinery boundaries.

See Response 5-178

There is no question that marine sources would be retrofitted or repowered. The SCAQMD has developed a protocol for obtaining NO_x credits for repowering or retrofiting marine vessels (Rule 1631 – Pilot Credit Generation Program for Marine Vessels). Rule 1631 is a voluntary program to generate NO_x credits applicable to the RECLAIM program. As explained in Response 5-177, the SCAQMD cannot require retrofiting, repowering or controlling emissions from marine vessels unrelated to stationary source equipment. With regard to the Gaviota Marine Terminal in Santa Barbara, see Response 5-179.

Response 5-179

The SCAQMD contacted the Santa Barbara County Air Pollution Control District (SBAPCD) to confirm the information submitted in this comment. According to Jim Menno of the SCAPCD, the Gaviota Terminal is a pipeline terminal, and no longer receives marine vessels and has not done so for a number of years. Further, the support and crew vessels identified in this comment were vessels dedicated to the marine terminal (owned or operated by the applicant) and directly associated with the stationary equipment. Such vessels contribute to the emission calculation

procedures for the facility and, therefore, were subject to the conditions identified in this comment. No such similar vessels are associated with Ultramar's CARB Phase 3 proposed project. Finally, offshore oil and gas operations in the outer continental shelf (located within 25 miles of California's seaward boundary) of the Basin are already regulated pursuant to SCAQMD Rule 1183.

Note that Santa Barbara County Air Pollution Control District required offsets for the operation of onshore oil and gas operations. The Ultramar proposed project is exempt from requiring offsets (see Response 5-177).

Response 5-180

There are some local marine vessels that have been voluntarily repowered. As noted in Response 5-178, the SCAQMD has developed a protocol for generating NOx credits from marine vessels (Rule 1631). Marine retrofit or repowering projects, however, are all voluntary projects. Based on exhaustive research conducted by the SCAQMD as part of the Mobil CARB Phase 2 reformulated gasoline EIR (SCAQMD, 1998), the SCAQMD does not have authority to directly regulate marine vessel emissions.

The Mobil Final EIR concluded that the SCAQMD must act within the constraints of the admiralty clause, the commerce clause and the supremacy clause of the United States Constitution. Under the supremacy clause, the SCAQMD could be prohibited from regulating ship emissions, if Congress has explicitly or implicitly foreclosed the regulation of ship emissions. As explained in the Mobil Final EIR, the Ports and Waterways Safety Act ("PWSA") preempts the SCAQMD from regulating engine design, construction and operation of machinery to the extent that such regulation would interfere with vessel safety or protecting the marine environment. Similarly, on September 26, 1997, the United States approved Annex VI to MARPOL 73/78 regarding NOx emissions from marine diesel engines (Revised Draft EIR, Volume VII, p. 30), and that action implicitly indicates an intent to foreclose the SCAQMD's regulation of NOx emissions. Under the admiralty clause, the SCAQMD is prohibited from adopting and enforcing regulations which interfere with the proper harmony and uniformity of maritime law. In addition, pursuant to the commerce clause, the SCAQMD is prohibited from adopting and enforcing regulations which unduly burden interstate and international commerce.

The Clean Air Act does not preempt "in-use" mitigation measures. The following "in-use" measures were considered and found to be infeasible or found to be ineffective as mitigation: limiting the hours of use or the number of engines used; prohibiting railcar visits during first or second stage smog alerts; imposing fuel specifications; and reducing rail speeds. It was determined that imposing these types of mitigation measures would not be expected to be effective in reducing emissions in the Basin since they would only apply to one company. Other companies would be able to transport the materials into the Basin without any such restrictions. Therefore, no real emission benefits would be expected.

Response 5-181

The SCAQMD's Technology Office co-sponsors and may even provide funding for low emission projects including repowering tugboats. Such projects are typically voluntary pilot projects to test

the effectiveness and cost effectiveness of promising low emission technologies. As already stated, in Response 5-180, the SCAQMD has no authority to regulate the marine vessel emissions. The project proponent could, however, enter into voluntary agreements to retrofit or repower local tug boats or other similar source.

Response 5-182

As noted previously, the SCAQMD has no authority to regulate marine vessel emissions (see Response 5-177, 5-178, 5-179, and 5-180). Thus the SCAQMD cannot require that SCR be installed on marine vessels.

Response 5-183

Locomotives are another off-road mobile source over which the SCAQMD has no authority to regulate emissions. This authority rests solely with the U.S. Environmental Protection Agency since, in order for emission reductions from railcars to be effective, they must be implemented on a nation-wide basis (not a local basis). Consequently, the SCAQMD cannot require locomotives to be retrofitted with SCR.

The Carl Moyer Memorial Air Quality Standards Attainment Program is a statewide program that provides funding to accelerate the introduction of low emission, heavy-duty engines in trucks, transit and school buses, marine vessels, and off-road mobile sources such as construction equipment. Based on last year's Carl Moyer funding allocations, the SCAQMD expects to receive \$19.745 million for this year's allocation. Carl Moyer funding, plus funding from the California Energy Commissions and the SCAQMD's Clean Fuels Program will allow the SCAQMD to offer up to \$26.485 million this fiscal year to help businesses and public agencies in the district to implement projects to reduce NOx emissions from heavy-duty equipment. This fiscal year, the SCAQMD is expected to offer \$1.2 million for projects to reduce NOx emissions from marine vessels. For a list of anticipated funding for other clean air projects, the commentator is referred to the SCAQMD's Carl Moyer Program webpage at www.aqmd.gov/news1/technology/Moyer_info.htm. Applications for Car Moyer funding for this fiscal year were due to the SCAQMD by April 20, 2001.

As noted previously, the SCAQMD has no authority to regulate emissions from railcar engines (see Response 5-177, 5-178, 5-179, and 5-180). Thus the SCAQMD cannot require that SCR be installed on railcar engines.

Response 5-184 through 5-185

The construction and operational SOx and PM10 emissions from the proposed project are less than significant so that no mitigation measures are required for SOx or PM10 emissions. Further, Rule 431.2 requires use of low sulfur diesel in the district on or after January 1, 2005.

Response 5-186

Additional information has been added to the Final EIR related to the handling of soil contamination. Ultramar follows strict regulations and guidelines for the handling of contaminated soil which are expected to minimize the potential worker exposures (see Response 5-187 for further details). No mitigation measures were required for soil contamination because numerous state and federal rules and regulations govern the discovery, testing, and ultimate fate of hazardous materials so that compliance with these requirements is expected to minimize the potential for significant impacts. No mitigation measures were required for soil contamination because no significant impacts were identified (CEQA §115126(c)).

Response 5-187

The comment is incorrect with regard to impacts associated with soil contamination. Existing laws and regulations address the discovery and remediation of contaminated sites, including the discovery of such sites during construction activities. Existing laws require health and safety plans, working training, and various other activities which serve to protect workers from exposure to contamination, including 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response (Fed-OSHA, HAZWOPER); CCR 5192, Hazardous Waste Operations and Emergency Response (Cal-OSHA, HAZWOPER); and SCAQMD Rule 1166, Volatile Organic Compound (VOC) Emissions from Decontamination of Soil.

In compliance with these and other regulations, Ultramar has developed a Hazardous Waste Operations and Emergency Response program and guidelines, which apply to its own and to contractor employees. This program establishes personnel requirements, employee training requirements, procedures for soil remediation operations, requirements for site specific health and safety plans, procedures for exposure monitoring, requirements for the use of appropriate personal protective equipment, requirements for medical surveillance programs, requirements for contingency plans, requirements for decontamination measures and recordkeeping requirements. Rule 1166 requires routine monitoring for VOC contaminated soil and requires that mitigation actions be taken when VOC emissions measure 50 ppmv at a distance of no more than three inches above excavated and exposed soil. All these regulations, programs and plans, collectively, minimize the potential for worker exposure.

All contamination does not need to be remediated, only contamination that exceeds certain concentrations. Monitoring required under SCAQMD Rule 1166 can help detect VOC contamination that exceeds 50 ppmv. The hazardous waste regulations in Title 22 of the CCR establish requirements for hazardous waste handling, transport and disposal. These requirements apply to all contamination, whether it is discovered as part of construction or some other activities.

Response 5-188

See Response 5-187 regarding contaminated soil. The presence of soil contamination will be determined through routine monitoring as required by SCAQMD Rule 1166. If contamination is discovered, the health and safety plan will be developed that specifically requires the use of

employees trained in hazardous material/waste procedures, personnel protective clothing, and so forth that minimize employee exposure.

As standard practice, Ultramar will use the Underground Service Alert service to identify subsurface structures, including pipelines, prior to beginning construction activities on the proposed pipeline. The Underground Service Alert maintains available data on subsurface structures and provides information of subsurface structures that may be within the pipeline right-of-way. This will allow Ultramar and its contractors to avoid subsurface structures.

It should also be noted that, at this time, there is no known soil contamination that will be encountered within the Refinery or along the pipeline route. As a conservative analysis for purposes of the EIR, it was assumed that 10 percent of the soil handled would be contaminated.

Response 5-189

See Response 5-187 regarding contaminated soil. Mitigation measures for soil contamination are not required because no significant adverse impacts have been identified (CEQA §115126(c)).

Response 5-190

See Responses 5-187 and 5-189 regarding the potential for soil contamination. Note that soil and gas sampling will be conducted as part of construction activities. There is no known soil contamination that will be encountered within the Refinery or along the pipeline route. Phase 2 site assessments are generally conducted when contamination is suspected, so a Phase 2 site assessment is not required at this time.

The requirements for sampling are included in existing federal, state and local rules and regulations that governing the discovery and handling of hazardous materials and wastes. When levels of specific compounds are exceed, Ultramar (in compliance with the various state and federal regulations) requires the preparation of health and safety plans to minimize the potential for worker exposure or exposure to individuals surrounding the site.

Response 5-191

See Response 5-187 regarding measures for handling contaminated soils. Monitoring and sampling at the construction sites will be conducted in compliance with the SCAQMD Rule 1166 Plan, which establishes requirements for sampling, detection, monitoring and control of VOC emissions associated with soil contamination. See Response 5-190 regarding a Phase II site assessment.

Response 5-192

See Response 5-187 regarding measures for handling contaminated soils. Monitoring and sampling at the construction sites will be conducted in compliance with the SCAQMD Rule 1166 Plan, which establishes requirements for sampling, detection, monitoring and control of VOC emissions associated with soil contamination. See Response 5-190 regarding a Phase II site

assessment. Action levels (or “thresholds of concern”) have been developed by various regulatory agencies and are used as guidance to determine concentrations of contaminants that would require remediation.

Response 5-193

See Response 5-187 regarding measures for handling contaminated soils. Significant adverse impacts associated with contaminated soils were not identified for the proposed project so mitigation measures are not required.

Response 5-194

It is appropriate that construction activities within areas of known contamination, e.g., rail yards, be remediated prior to redevelopment of the site with any buildings or other structures. It should also be noted that the impact of contaminated soils on certain buildings, e.g., commercial structures and residents, is potentially significant as emissions could be generated that impact occupied structures. The Ultramar proposed project will not result in the construction of structures where individuals will work or live. Rather only industrial refinery equipment and pipelines will be constructed so significant impacts associated with soil contamination are not expected.

Existing rules and regulations are in place that protect workers (see Response 5-187) so significant impacts are not expected on construction workers associated with soil contamination. No mitigation measures are required since no significant impacts associated with soil contamination have been identified.

Ultramar, under existing regulations, would prepare a health and safety plan if soil contamination is discovered and remediation activities are required. Monitoring and sampling at the construction sites will be conducted in compliance with the SCAQMD Rule 1166 Plan, which establishes requirements for sampling, detection, monitoring and control of VOC emissions associated with soil contamination.

Response 5-195

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. Nonetheless, as explained in Response 5-187 workers involved in remediation activities will be required to be properly trained which will include 40 OSHA training under state and federal HAZWOPER requirements,

Response 5-196

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. Note that all construction activities are expected to occur within industrial areas so no impacts on single family residential areas are expected. The Refinery and all pipeline routes are completely within areas that are zoned and the designated land use in heavy industrial. Therefore, no development of residential areas are expected within the proposed project areas.

Response 5-197

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. Monitoring and sampling at the construction sites will be conducted in compliance with the SCAQMD Rule 1166 Plan, which establishes requirements for sampling, detection, monitoring and control of VOC emissions associated with soil contamination.

Response 5-198

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. See Response 5-187 regarding the policies and procedures that will be used, if contamination is discovered, to protect workers.

Response 5-199

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. See Response 5-187 regarding the policies and procedures that will be used, if contamination is discovered, to protect workers. Remediation would most likely occur as the pipeline is constructed so that, in the event contamination is discovered, workers will be used that have appropriate training in hazardous waste remediation.

Response 5-200

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. See Response 5-187 regarding the policies and procedures that will be used, if contamination is discovered, to protect workers. The use of buffer zones could be implement, if high concentrations of contamination were identified. However, all construction activities will occur within industrial areas and generally away from heavy concentrations of workers or residents so the use of buffer zones is not expected to be necessary.

Response 5-201

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. See Response 5-187 regarding the policies and procedures that will be used, if contamination is discovered, to protect workers. Detailed mitigation measures that are recommended in this comment are not appropriate at this time as soil contamination, ground water contamination or soil gas migration have not been identified.

Response 5-202

Mitigation measures for soil contamination are not required because no significant impacts associated with soil contamination have been identified. See Response 5-187 regarding the policies and procedures that will be used, if contamination is discovered, to protect workers. Detailed

mitigation measures that are recommended in this comment are not appropriate at this time as ground water contamination has not been identified. Note that ground water in the area has been intruded with sea water and not usable for drinking water.

Responses 5-203

The comment correctly states the conclusions of the Draft EIR. The reference for the comments is provided (see page 4-39) which is CARB 1999. This reference (which was provided in Chapter 7 of the Draft EIR) is the “Proposed California Phase 3 Reformulated Gasoline Regulations, Staff Report: Initial Statement of Reasons” prepared by CARB and dated October 22, 1999.

Responses 5-204

The Draft EIR recognizes that there is the potential that ethanol could cause the concentrations of other gasoline components in ground water to decline more slowly and the gasoline plumes may extend further than they would have without ethanol present (see page 4-40 of the Draft EIR). However, gasoline components are not expected to migrate as quickly as MTBE. Therefore, even with the presence of ethanol, gasoline plumes would not be expected to travel as far as MTBE plumes. Further, ethanol degrades more quickly and has a much shorter half-life than MTBE and appears less likely to contaminate drinking water as often as MTBE.

Governor Davis considered numerous studies, public testimony and other relevant information prior to issuing Executive Order D-5-99. California’s Governor Davis found that, “on balance, there is significant risk to the environment from using MTBE in gasoline in California.” In response to this finding, on March 25, 1999, the Governor issued Executive Order D-5-99 which directed, among other things, that California phase out the use of MTBE in gasoline by December 31, 2002.

Responses 5-205

The proposed project does not include modifications to or use of the GATX or ARCO Terminals. Therefore, specific comments regarding these terminals are not germane relevant to the proposed project or EIR.

The information from the Lawrence Livermore National Laboratory (LLNL) report is important to understanding that even though there are some concerns regarding the use of ethanol, when all data is evaluated in its entirety, it was determined that the use of ethanol as an oxygenate is preferable to the use of MTBE. While the LLNL report indicated that there is the potential for enhanced mobilization of existing free-product contamination by an ethanol release, it also concluded that the overall benefits from using ethanol are preferable to using MTBE. For example, a release of ethanol could be more easily remediated than a release of MTBE.

The LLNL is only one of a number of reports used by the state to review the elimination of MTBE from gasoline. Extensive analysis was completed by the University of California, California Air Resources Board, Regional Water Quality Control Board, among others, associated with SB 521. The LLNL report (UCRL-AR-135949, 1999) presents information on releases of ethanol to soil

and surface waters. This document was prepared as part of Senate Bill 521 (SB 521), enacting the MTBE Public Health and Environmental Protection Act of 1997 which directed the University of California to conduct research on the effects of MTBE. SB 521 also required the Governor to take appropriate action based on the findings of the report and information from public hearings. In consideration of this study, public testimony, and other relevant information, California's Governor Davis found that, "on balance, there is significant risk to the environment from using MTBE in gasoline in California." In response to this finding, on March 25, 1999, the Governor issued Executive Order D-5-99 which directed, among other things, that California phase out the use of MTBE in gasoline by December 31, 2002. The LLNL report also indicates that eliminating the use of MTBE and replacing it with ethanol is expected to mitigate the ground water problems created by MTBE. Therefore, on balance, the decision to eliminate MTBE is expected to provide beneficial impacts to ground water quality throughout the state.

It should also be noted that the federal government has required the use of an oxygenate in gasoline. Since the Governor of California has mandated that phase-out of MTBE, the only oxygenate that is currently available for use is ethanol.

The potential release of ethanol is minimized by the following: (1) leaks of ethanol are not expected due to existing source control programs, the use of cathodic protection, the required periodic testing of pipelines, the use of double bottom tanks, and so forth; (2) existing ground water sampling programs at terminals which are being modified to test for the presence of ethanol in ground water prior to bringing any ethanol to the facilities. In addition, ethanol will be included in the semi-annual ground water sampling and analysis so that leaks of ethanol would be more readily detected; and (3) even though the presence of ethanol in the subsurface environment could have adverse impacts on existing free product contamination, the LLNL report concluded that "the estimated potential future increase in public wells impacted by MTBE is significantly higher if MTBE remains the primary fuel oxygenate" as compared to the use of ethanol. Therefore, the potential for enhanced mobilization of the existing contamination by an ethanol release is not expected to result in a significant impact to ground water because significant leaks of ethanol are not expected.

A 1994 API survey is not expected to be reflective of current conditions because of new state and federal underground storage tank regulations that became effective in 1998. Leak detection systems are also required for above ground storage tanks. Note the proposed project does not include the construction of additional storage tanks and would not include additional storage of ethanol at the Refinery.

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