Supplemental Comments

on

Subsequent
Negative Declaration

CONOCOPHILLIPS
LOS ANGELES REFINERY
ULTRA LOW SULFUR DIESEL PROJECT

Prepared by

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COMMENTS

I have reviewed the Subsequent Negative Declaration ("SND") for the ConocoPhillips Los Angeles Refinery Ultra Low Sulfur Diesel Project ("ULSD Project" or "Project") issued by the South Coast Air Quality Management District ("SCAQMD") on June 21, 2005 and relevant supporting documentation. After reviewing the SND and other relevant information, I conclude that the ULSD Project may have adverse environmental impacts that must be analyzed in an environmental impact report ("EIR").

The Comments contained herein supplement Comments on the SND that I prepared on July 18, 2005, which were submitted to SCAQMD on July 20, 2005. I incorporate by reference those comments contained in my July 18, 2005 letter and all prior comments that I have submitted on the three prior negative declarations prepared by the SCAQMD for the ULSD Project and for the related ConocoPhillips SCR Project in Carson.

In addition to the impacts previously identified, there is a fair argument that the modification to the ULSD Project described in the SND may have additional significant adverse environmental impacts that must be analyzed in an EIR, including, but not limited to, those set forth below.

I. RELEASES OF AMMONIA AND ANHYDROUS AMMONIA

The Project proposes to increase the use of ammonia at the ConocoPhillips refinery ("Refinery"). The Project will increase the use of aqueous ammonia as well as anhydrous ammonia. Both of these chemicals are extremely hazardous to human health. The increased use of aqueous ammonia and anhydrous ammonia may have an individually significant adverse impact on the environment and human health as well as a cumulatively significant adverse impact when considered together with the many other sources of aqueous ammonia and anhydrous ammonia at the Refinery and at other nearby facilities.

Ammonia gas is a severe eye and respiratory tract irritant. Brief exposure to high concentrations can cause pulmonary edema, a potentially fatal accumulation of fluid in the lungs. Pulmonary edema is a condition in which the lungs fill with liquid, potentially causing the victim to drown in his or her own bodily fluids. Long-term respiratory system and lung disorders have been observed following severe short-term exposures to ammonia.

The State of California[1] has found: "Persons with asthma and other respiratory ailments including underlying cardiopulmonary disease (Shim and Williams, 1986) and persons with no tolerance, developed from recent exposures to ammonia (Ferguson *et al.* 1977), may be more susceptible to the toxic effects of ammonia."

The U.S. Department of Health found: "If you were exposed to very high levels of ammonia, you would experience more harmful effects. For example, if you walked into a dense cloud of ammonia or if your skin comes in contact with concentrated ammonia, your skin, eyes, throat, or lungs may be severely burned. These burns might be serious enough to cause permanent blindness, lung disease, or death" [2]

The U.S. Department of Health found that leaks and spills from production and transportation of ammonia can cause high exposure: "Outdoors, you may be exposed to high levels of ammonia gas in air from leaks and spills at production plants and storage facilities, and from pipelines, tank trucks, railcars, ships, and barges that transport ammonia."[3]

Two types of ammonia will be used by the Project, 30 percent aqueous ammonia and anhydrous ammonia. Both of these types of ammonia release large amounts of toxic ammonia fumes when they are spilled. Both of these types of ammonia will be transported to the site, stored on site, and used in the proposed SCR. Accidents may occur during transport, storage, and use that will cause releases of ammonia. These releases could result in significant impacts to residents along the transportation route, to workers at the refinery, and to residents and workers around the refinery.

The U.S. Department of Health found that exposure to the public can be significant from transportation and/or storage of ammonia: "Outdoors, you may be exposed to high levels of ammonia gas in air from leaks and spills at production plants and storage facilities, and from pipelines, tank trucks, railcars, ships, and barges that transport ammonia."[4] High levels of ammonia exposure

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[1] OEHHA (Office of Environmental Health Hazard Assessment, CalEPA), Determination of Acute Reference Exposure Levels for Airborne Toxicants, March 1999, ACUTE TOXICITY SUMMARY, AMMONIA (attached as exhibit 1).
[2] Toxicological Profile for Ammonia, U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, September 2004, page 6, (attached as exhibit 2).
[3] Id. at 4.
[4] Id.

are known to be acutely hazardous, as discussed earlier and shown in attached documents.

The Initial Study evaluated the impact of a release from cylinders of anhydrous ammonia and concluded that it was insignificant. SND, Appx. B. However, this analysis failed to consider impacts to workers at the refinery and to residents and workers along the ammonia transportation route. The results of the SND's modeling show that potentially lethal concentrations of ammonia would be present within a few seconds at up to 45 feet from the site of an accident. Levels considered to be significant by the SCAQMD would occur at up to 80 feet from the accident site. SND, p. 2-27.

Refinery workers are frequently within 45 to 80 feet of ammonia storage and handling equipment. Further, residents and businesses are frequently within 45 to 80 feet of roadways used to transport anhydrous ammonia in the densely populated South Coast. Therefore, I conclude based on the SND's analysis that the transport, storage and use of anhydrous ammonia related to this Project could result in significant worker and public health impacts. Thus, there is a fair argument that there is a potentially significant environmental impact to workers and residents from accidental releases of anhydrous ammonia along transportation routes and a potentially significant adverse impact to refinery workers from accidental releases that may occur from the use and storage of anhydrous ammonia.

The SND also concluded that the impacts associated with transporting, storing and using 30% aqueous ammonia would not be significant due to existing design, operations, maintenance, regulatory, and administrative controls. SND, pp. 2-26 to 2-27. This is incorrect on several counts.

A. Terrorism and Sabotage

First, the SND's analysis did not consider terrorism and employee sabotage at all. A June 2005 study on the petroleum industry published by the California Energy Commission ("CEC") concluded that intentional releases caused by terrorism or sabotage by employees are a greater concern today than in the past.[5] The study specifically points to "the use of hazardous materials, such as ammonia," as a hazardous material susceptible to terrorism and sabotage.[6] The study also concluded that current hazardous materials regulations do not specifically

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[5] California Energy Commission, Staff Report: Petroleum Infrastructure Environmental Performance Report, June 2005, p. 3 (Attached as Exhibit 3).
[6] Id.

address these risks.[7] The CEC report and other studies recognize that a terrorist or saboteur could target a refinery, possibly causing a release of ammonia with potentially catastrophic impacts on the environment and human health. Thus, I conclude that health risks from releases of either 30% aqueous and/or anhydrous ammonia caused by terrorism and employee sabotage are potentially significant. Thus, there is a fair argument that the Project may have a significant adverse environmental impact related to the release of aqueous and/or anhydrous ammonia from terrorist acts or sabotage.

B. Cumulative Risks of Ammonia Releases

Second, the SND did not evaluate cumulative risks at all. The refinery currently stores and uses large amounts of aqueous and anhydrous ammonia. The increase in aqueous and anhydrous ammonia from this project would be added to the ammonia already present on site. The aqueous ammonia, for example, would be added to an existing ammonia storage tank at the Wilmington Plant. SND, p. 2-27. Thus, the tank will store and process more ammonia as a result of the project. The SND only evaluated the incremental increase due to the project itself. However, a major leak in the tank and/or the ammonia delivery system, whether caused by accident, terrorist act or sabotage, would release the entire contents, not just the increment due to the project. The cumulative impacts of an ammonia release would be much larger than for just the increment, and in my opinion would be significant.

Additionally, there are significant cumulative impacts from the two SCR modifications associated with the ULSD project when considered together and when considered with the many SCR projects that have been undertaken in the vicinity of the Los Angeles Refinery. ConocoPhillips recently installed SCR and a new aqueous ammonia tank at the Carson site of the same Los Angeles Refinery as a part of the ULSD Project modifications.[8] The SND fails to mention these very recent SCR additions to the ConocoPhilips Los Angeles Refinery-Carson, and does not consider any other SCR projects in a cumulative impacts analysis. Neglecting to consider the cumulative impacts violates CEQA.

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[7] Id. at 78.

[8] See Final Negative Declaration for ConocoPhillips Los Angeles Refinery Carson Plant SCR Unit Project (attached as exhibit 4).

Additionally, many SCR projects have been installed in the vicinity of this project in the recent past.[9] Each additional SCR project requires additional transportation and storage of ammonia. Considered cumulatively, the hazard from an accidental release of ammonia during a transportation accident, or an intentional release due to terrorism or sabotage, is very significant and must be analyzed in an EIR.

There are also numerous other users of ammonia in the vicinity of the ConocoPhillips Refinery. The Project will have cumulative impacts together with these other projects, particularly if trucks carrying ammonia travel along the same street and neighborhoods. The SCAQMD has failed entirely to analyze whether or not there will be cumulative ammonia transportation risks posed by the Project together with other users of ammonia in the area. This is at least a potentially significant adverse impact that must be analyzed in an EIR.[10]

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[9] For example, the following SCR Projects have been undertaken in the South Coast Basin in the past few years: Final Negative Declaration for: Southern California Edison Pebbly Beach Generation Station Selective Catalytic Reduction (SCR) Installation Project, SCH No. 2003031050, March 2003, http://www.aqmd.gov/ceqa/documents/2003/nonaqmd/edison_FND.doc (attached as exhibit 5); Final Negative Declaration for Reliant Energy Etiwanda Generating Station Selective Catalytic Reduction (SCR) Installation Project (Units 1 & 2), September 2002, http://www.aqmd.gov/ceqa/documents/2002/nonaqmd/reliant/final/ND_final.doc (attached as exhibit 6); Final Negative Declaration For: BP Carson Refinery Fluid Catalytic Cracking Unit NOx Reduction Project, SCH No. 2002021068, March 2002, http://www.aqmd.gov/ceqa/documents/2002/nonaqmd/BP/final/nd_final.doc (attached as exhibit 7); Final Environmental Impact Report for: AES Alamitos, L.L.C. – Selective Catalytic Reduction (SCR) Installation at Alamitos Generating Station (Units 1, 2, 3 and 4), SCH No. 2000111039, March 9, 2001, http://www.aqmd.gov/ceqa/documents/2001/nonaqmd/aes/final/feir.doc (attached as exhibit 8); Final Mitigated Negative Declaration for: Reliant Energy Etiwanda Generating Station Selective Catalytic Reduction Installation Project, 2001, http://www.aqmd.gov/ceqa/documents/2001/nonaqmd/reliant/reliant_f.html (attached as exhibit 9).

[10] There are at least five other SCR projects within the region of the proposed Conoco project which were not evaluated. The SCAQMD should at the very least analyze the transportation routes used to carry ammonia to these projects to determine if they will create a cumulatively significant impact when combined with the ammonia used at the ConocoPhillips Refinery. There is at least a fair argument that these other projects may share ammonia transportation corridors that may pose a cumulatively significant risk when considered together with the ConocoPhillips ULSD SCR Project:

- **Reliant Energy Etiwanda Generating Station Selective Catalytic Reduction (SCR) Installation Project (Units 1 & 2) (2002)**

The SCAQMD has failed entirely to conduct a cumulative impacts analysis of the ULSD Project together with the other projects that increase the use, storage and transport of ammonia. These projects may have a cumulatively significant adverse impact related to both accidental and/or intentional releases of aqueous and/or anhydrous ammonia during the transportation of ammonia through the community. These risks are heightened according to the CEC due to risks related to terrorism and sabotage that may target ammonia transportation trucks as they pass through the community. A cumulative analysis of ammonia use and transportation from all these projects together must be provided. Such an analysis could analyze the overall risks and propose measures to mitigate the risks, such as routing ammonia trucks to avoid population centers. To the extent that some of these projects may use similar transit corridors to transport ammonia, there may be a potentially significant cumulative impact that must be analyzed in an EIR.

Additionally, neglecting to consider these two SCR projects together (SCR at ConocoPhillips Wilmington and SCR at ConocoPhillips Carson) in one

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2 SCR units
1 12,500 gallon ammonia storage tank
6-8 trucks /month (6000 gallons ammonia each)

- **BP Carson Refinery Fluid Catalytic Cracking Unit NOx Reduction Project (2002)**
  1 SCR unit
  1 10,413 gallon ammonia storage tank:
  Truck trips 6,000-7,000 gallons ammonia /per truck trip. Number of trips unknown.
- **AES Alamitos, L.L.C. - Selective Catalytic Reduction (SCR) Installation at Alamitos Generating Station (Units 1, 2, 3 and 4) (2001)**
  4 SCR units
  3 20,000 gallon ammonia storage tanks = 60,000 gallons of storage
  6,000 gallons ammonia per truck trips, 410 truck trips/year
- **Southern California Edison Pebbly Beach Generation Station Selective Catalytic Reduction (SCR) Installation Project (2003)**
  1 SCR unit
  1 10,000 gallon ammonia storage tank
  Truck trips every 10-11 days (amounts per trip unknown)
- **Reliant Energy Etiwanda Generating Station Selective Catalytic Reduction Installation Project (2001)**
  2 SCR units
  2 10,000 gallon ammonia storage tanks
  6,000 gallon ammonia trucks, 6-8 times per month

environmental review document constitutes illegal piecemealing. Proper environmental review must consider the environmental impacts of all SCR additions to the Los Angeles refinery together. Thus, an EIR must be prepared to analyze the cumulative impacts from this SCR project.

II. ALTERNATIVES AND MITIGATION MEASURES MUST BE CONISDERED

In the EIR for the 2003 Air Quality Management Plan,[11] the SCAQMD has identified feasible mitigation measures for risks related to the transportation of ammonia. None of these feasible mitigation measures were considered in the SND. Clearly these are feasible mitigation measures that must be evaluated in an EIR for the Conoco project.

> "HZ2: Rules encouraging the use of SCRs or permits for SCRs shall limit the catalyst to aqueous ammonia or its equivalent. Current SCAQMD policy already requires using aqueous ammonia."
>
> "HZ3: Require the use of transportation routes for ammonia shipments to facilities that ensures minimum exposure to sensitive population and further minimize risks by shipping ammonia during off-peak times. This will be accomplished by implementing the following mitigation measures:"
>
> 1. Prior to the first delivery of aqueous ammonia to a site, truck haul routes shall be submitted to the SCAQMD for review and approval.
> 2. The haul routes shall minimize rail crossings and crossings of busy intersections.
> 3. When traveling on surface streets, the haul routes shall not come within one-quarter mile of an existing or proposed school, where feasible.
> 4. Deliveries shall not be en route during peak traffic hours, which generally occur between 7:00 AM and 9:00 AM or between 4:00 PM and 6:00 PM weekdays.

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[11] Final Program Environmental Impact Report to the 2003 Draft AQMP, State Clearinghouse No. 2002081137, Subchapter 4.3, Hazards, 4.3-21-4.3-22 *available at* http://www.aqmd.gov/CEQA/documents/2003/aqmd/finalEA/aqmp/14_ch4_hazards.doc (attached as exhibit 10).

5. The haul routes shall be resubmitted if suppliers are changed."

"HZ4: Require construction of containment dikes to be used during off-loading operations."

"HZ5: Require construction of containment dikes around ammonia storage tanks to contain the volume of the tank."

The SND considers none of the above feasible mitigation measures that could greatly reduce the individually and cumulatively significant risks posed by the use and transport of ammonia related to the Project. An EIR must be required to consider and implement the above mitigation measures.

Furthermore, the SND fails entirely to consider feasible alternatives to the use of 30% aqueous ammonia with anhydrous ammonia as a back-up. The SCAQMD concluded that:

> "Use of aqueous ammonia at concentrations less than 20 percent by volume in conjunction with the above mitigation measures can reduce hazard impacts associated with ammonia use to less than significant." (EIR for 2003 AQMP, page 4.3-22 (exhibit 10))

Despite this conclusion, the SND proposes to allow the use of 30% aqueous ammonia – a 50% higher concentration than recommended by the SCAQMD in a prior CEQA document analyzing this same impact. Since the SCAQMD has concluded that aqueous ammonia with concentrations of less than 20% ammonia in conjunction with mitigation measures can reduce hazard impacts to less than significant, the fact that the Conoco ULSD Project proposes to use the much higher 30% ammonia concentration is proof that the Project has *per se* significant adverse impacts related to ammonia as a matter of law. (*See, Mejia v. Los Angeles* (2005) 13 Cal. App. 4th 322 (If Project exceeds CEQA significance threshold, it must be deemed to have potentially significant adverse impacts and an EIR is required).)

The SND fails even to consider the feasible alternative of using 19% aqueous ammonia as recommended by the SCAQMD in the prior EIR. An EIR must be required to consider this and other feasible alternatives to the use of 30% aqueous ammonia.

Also, the ULSD Project proposes to use anhydrous ammonia as a back-up. As discussed above, anhydrous ammonia is even more deadly than aqueous ammonia. Its use should be prohibited entirely. In fact the 2003 AQMP EIR

states that anhydrous ammonia use should be prohibited entirely, in favor of aqueous ammonia. The 2003 AQMP EIR states, "Rules encouraging the use of SCRs or permits for SCRs shall limit the catalyst to aqueous ammonia or its equivalent. Current SCAQMD policy already requires using aqueous ammonia." (EIR for 2003 AQMP, p. 4.3-21). Thus, the Project is inconsistent with the 2003 AQMP since it allows the use of anhydrous ammonia. This is a per se significant adverse impact under CEQA that must be analyzed in an EIR. An EIR must be prepared to consider the feasibility of eliminating anhydrous ammonia entirely from the Refinery.

Finally, the SND fails entirely to consider the feasibility of the use of solid urea pellets. Urea pellets can be used in SCR projects to provide ammonia in a solid form. Urea pellets eliminate almost entirely risks related to aqueous or anhydrous ammonia transport, use and storage. In fact, the SCAQMD itself has analyzed the use of urea pellets as a feasible alternative in at least one other EIR prepared for an SCR project. (Final EIR for AES Alamitos LLC SCR Installation, p. 5-2 (2001) (Exhibit 8).) An EIR must be prepared for the Conoco USLD Project to consider the feasibility of the use of urea pellets rather than aqueous ammonia or anhydrous ammonia.

COMMENT LETTER NO. 3
ADAMS, BROADWELL, JOSEPH, & CARDOZO

Kevin S. Golden
August 12, 2005

On August 12, 2004, over three weeks following the close of the public comment period (July 20, 2005), an additional supplemental comment letter was received from Kevin Golden of Adams, Broadwell, Joseph & Cardozo on behalf of Carlos Valdez, Southern California Pipe Trades District Council 16 and United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada, Local 250 (Unions). The Unions had previously submitted comments on the Draft Subsequent Negative Declaration. The supplemental comment letter raised many of the same issues that had been raised in comments on the 2004 Negative Declaration, 2004 Addendum and the 2005 Subsequent Negative Declaration, all of which were previously responded to.

However the supplemental comment letter also raised new issues and presented additional materials regarding issues previously addressed. CEQA does not require the SCAQMD to respond to late comment letters. However, in this case, the SCAQMD has elected to provide additional explanation and analysis in response to issues raised in the supplemental comment letter.

The supplemental comment letter from Mr. Golden included additional comments from Phyllis Fox and additional attachments. The comments provided by Mr. Golden included supplemental comments provided by Phyllis Fox dated August 9, 2005 (included as Exhibit A). The issues raised by Ms. Fox are included in the comments submitted by Mr. Golden and addressed in the following responses.

A number of exhibits and attachments were provided with Mr. Golden's supplemental comment letter including: (1) Acute Toxicity Summary for ammonia that provides information on the health effects of ammonia exposure; (2) Toxicological Profile for Ammonia; (3) Petroleum Infrastructure Environmental Performance Report; (4) The Notice of Intent to Adopt a Negative Declaration for the ConocoPhillips Los Angeles Refinery Carson Plant SCR Project; (5) Final Negative Declaration for Southern California Edison Pebbly Beach Generating Station SCR Project; (6) Final Negative Declaration for Reliant Energy Etiwanda Generating Station SCR Installation Project (Units 1 and 2); (7) Final Negative Declaration for BP Carson Refinery Fluid Catalytic Crackng NOx Reduction Project; (8) Final Mitigated Negative Declaration for Reliant Energy Etiwanda Generating Station SCR Installation Project; (9) a portion of the SCAQMD's 2003 Air Quality Management Plan Program EIR; (10) previous comments submitted by the commentator on the ConocoPhillips ULSD project; and (11) a portion of the Final Staff Assessment for the proposed Potrero Unit 7 Project. The first three documents reiterate the fact the ammonia is a potentially hazardous material. The Subsequent Negative Declaration recognized the potential health effects associated with

the use of ammonia so the detailed reports on ammonia hazards do not need additional comment. One attachment was a copy of the previous comments prepared by the commentator on the 2004 Negative Declaration and were responded to in the 2004 Final Negative Declaration (see Appendix C of the 2004 Final Negative Declaration). The remaining attachments and exhibits are copies of CEQA documents prepared for previous projects. All of the CEQA documents, with the exception of the Potrero Unit Final Staff Assessment, were prepared by the SCAQMD. The relevancy of these CEQA documents to the ConocoPhillips SCR Project is addressed in the following comments.

3-1 General Comments, Legal Standard and Previous Comments

The issues raised in this comment were previously received and addressed through responses in the 2004 Final Negative Declaration, 2004 Addendum, and the comment letter dated July 20, 2005 and responded to in Responses 1-1 through 1-15 herein.

3-2 Ammonia Impacts to Workers and Residents

The commentator has raised concerns about the hazards associated with the use and transport of aqueous and anhydrous ammonia. The potential hazard impacts associated with the use of ammonia were addressed in the Subsequent Negative Declaration (see pages 2-26 through 2-32).

It is well known that there are hazards associated with the use of ammonia. As acknowledged in the Subsequent Negative Declaration (see page 1-1), "(t)he Subsequent Negative Declaration has been prepared to evaluate the changes in the ULSD project's potential impacts due to the addition of SCR as BACT for replacement charge heater B-401." The additional use of ammonia is one of the reasons that additional CEQA review was required for the ULSD project, as modified.

On-Site Hazards Associated with Ammonia Use

The comment that the "proposed SCR Project proposes to dramatically increase the use of ammonia and anhydrous ammonia at the ConocoPhillips refinery" is inaccurate. As addressed in the Subsequent Negative Declaration (pages 2-26 through 2-30 and Appendix B), the proposed project modifications would use an existing aqueous ammonia tank at the Wilmington Plant to store the ammonia for the new SCR Unit. No new storage tanks are required at the site as a result of the proposed project. Therefore, no increase in on-site storage of aqueous ammonia and the related hazards would be expected at the Wilmington Plant. The consequences related to an accidental release of aqueous ammonia would remain unchanged because the same amount of ammonia would be stored on-site regardless of whether the new SCR Unit is constructed or not.

> The Subsequent Negative Declaration concluded the following with respect to the use of anhydrous ammonia:

- A back-up supply consisting of two 150-pound cylinders of anhydrous ammonia will also be installed as part of the aqueous ammonia vaporization skid at the new heater.

- The ConocoPhillips Wilmington Plant already stores, transports and uses anhydrous ammonia so that proposed project modifications will not add new chemicals or new hazards to the facility.

- Based on an evaluation of a worst-case release, it was determined that the distance that the release would travel to the Emergency Response Planning Guideline (ERPG-2) level[1] (200 ppm) would be 60 feet for a release from one cylinder and 80 feet for a simultaneous release from both cylinders, which is well within the boundaries of the Refinery. Therefore, the general public would not be exposed to ammonia concentrations that exceed the ERPG-2 levels.

- Refinery workers are trained on refinery hazards and have access to personal protective equipment that persons outside of the refinery do not have access. No significant impacts to workers are expected because of the extensive training requirements and the use and availability of personal protective equipment. Further, the cylinders will empty in just a few seconds (12 to 14 seconds), thus any exposure would be short term and quickly dissipate.

Therefore, the comment that "(l)arge amounts of . . . ammonia will be . . .stored on site" is not correct. The total increase in ammonia stored at the Wilmington Plant associated with the ULSD project will be two, 150 pound cylinders of anhydrous ammonia. As explained above and in the Subsequent Negative Declaration, a hazard analysis was completed that demonstrated that the release of the entire amount of ammonia (300 pounds) would result in ammonia concentrations less than the ERPG2 levels at the refinery boundary and, therefore, the hazard impacts associated with ammonia storage would be less than significant. Since these hazard impacts associated with the use of ammonia for the ULSD project are less than significant, no mitigation measures are required.

Transportation Hazards Associated with Ammonia Use

The transportation hazards due to ammonia use in the ULSD project were addressed in the Subsequent Negative Declaration (see pages 2-28 to 2-30).

Aqueous and anhydrous ammonia are currently routinely delivered to the ConocoPhillips facility for use in other SCR units. ConocoPhillips receives ammonia from a local ammonia supplier located in the City of Los Angeles. Deliveries of aqueous ammonia are made to the facility by tanker truck via public roads. The maximum capacity of a tanker truck is 6,000 gallons and ConocoPhillips estimates a maximum of 1,525 gallons per year (about four gallons per day) will be required to operate the new SCR Unit. Therefore, based on the onsite storage capacity and consumption of ammonia, delivery frequency from the supplier to the facility would increase by about 1 truck trip every 4

[1] Concentration that an individual may be exposed for up to one hour without experiencing or developing irreversible health effects or symptoms which could impair an individual's ability to take protective action.

years (6,000 gallons per truck/1,525 gallons/year=3.93 or ~4 years). Therefore, the frequency of aqueous ammonia deliveries associated with the proposed new SCR Unit is very low.

The hazard impacts associated with the transportation of aqueous ammonia were addressed in the Subsequent Negative Declaration (see pages 2-29 through 2-30), with the following conclusions:

- The estimated accident rate associated with transporting aqueous ammonia for this project is 0.000014, or about one accident every 71,427 years.

- Aqueous ammonia is currently shipped to the Refinery and the proposed SCR Unit will not increase the number of ammonia truck transport trips per day, beyond the number already occurring. As a result the consequence (exposure) to the local population would not change as a result of the proposed SCR Unit project. The potential incremental impacts associated with an accidental release of ammonia during transportation for the modified ULSD project is less than significant.

The hazard impacts associated with the transportation of anhydrous ammonia were addressed in the Subsequent Negative Declaration (see pages 2-29 through 2-30), with the following conclusions:

- The anhydrous ammonia cylinders would be delivered to the site from a supplier that delivers gases to the Refinery on a routine basis (about once a week). The anhydrous ammonia cylinders would be transported to the Refinery during one of these routine deliveries, so that no increase in trips would be required.

- The anhydrous ammonia cylinders will only be used in the event that the aqueous ammonia supply to the SCR Unit is interrupted. If not used, the cylinders would be replaced once every ten years, per U.S. Department of Transportation requirements. The hazards associated with the transport of ammonia are negligible and less than significant because no increase in trips is expected and anhydrous ammonia associated with the proposed project modification is expected to occur once every ten years.

The SCAQMD has found that the storage and transport of anhydrous ammonia in the volume typically required for SCRs will usually result in potentially significant hazard impacts as referenced in the Final Program Environmental Impact Report (PEIR) for the 2003 AQMP. However, the Final PEIR did not conclude that the use of anhydrous ammonia could result in potentially significant impacts in every situation. The use of anhydrous ammonia only in SCR systems generally requires the transport and storage of significant quantities of ammonia, e.g., ammonia is generally stored in 5,000 to 10,000 gallon storage tanks and transported in tanker trucks that contain about 5,000 to 7,000 gallons. The proposed SCR system at the ConocoPhillips Wilmington Refinery will not use anhydrous ammonia, rather, it will use aqueous ammonia. A maximum of 300 pounds of anhydrous ammonia could be used if the supply of aqueous ammonia to the

SCR unit is interrupted. The temporary use of anhydrous ammonia would allow ConocoPhillips to continue to operate the SCR unit, continue to reduce NOx emissions from charge heater B-401, but would allow time for the heater to be safely shutdown, if necessary. For the proposed SCR project, a detailed hazard analysis was completed which determined that the use of ammonia for this project would be less than significant, due to the small quantities of ammonia used.

Cylinders used for the storage and transport of anhydrous ammonia are required to meet rigid U. S. Department of Transportation (DOT) specifications for the transport of hazardous materials. The pertinent DOT specifications include the type of material the cylinder must be made of, the cylinder wall thickness, manufacturing standards, the requirement that the cylinders be hydrotested to at least twice the service pressure, welding requirements, heat treatment requirements, and physical tests to confirm the metallurgic characteristics of the cylinder. Compliance with these DOT requirements further minimizes the potential for releases during transport.

The commentator references a Final Assessment document prepared for the Potrero Unit 7 Project (Exhibit C). The Potrero Unit Project consists of a 540 megawatt, natural gas-fired, combined cycle electric generation facility proposed to be located in the City of San Francisco at the existing Potrero Power Plant. The Potrero project involved the storage of 40,000 gallons of aqueous ammonia (29 percent) in two 20,000 gallon tanks. The ConocoPhillips project is not comparable to the Potrero Power Plant project because no new aqueous ammonia storage tanks are included. It is important to note that the lead agency for the Potrero project, the California Energy Commission (CEC), concluded that a catastrophic release of 20,000 gallons of aqueous ammonia from the complete failure of a storage tank would not result in significant adverse impacts to off-site receptors and concluded that it was doubtful that most people would even notice an odor during such an event (CEC, 2002 which is Exhibit B to the supplemental comment letter).

Further, the Potrero Power Plant project would use much more aqueous ammonia than the ConocoPhillips project. It was estimated that the Potrero Power Plant Project would require about 73 truck trips per year to deliver ammonia to the site, as compared to the proposed SCR project of one truck trip every four years. The use of ammonia at the Potrero Power Plant would be about 1,600 gallons per day, as compared to the ConocoPhillips ammonia use of 4 gallons per day. Even though the Potrero Power Plant would use substantially more ammonia than the ConocoPhillips SCR project, the CEC concluded that "the risk of exposure to significant concentrations of aqueous ammonia during transportation to the facility are insignificant because of the remote possibility of accidental release of a sufficient quantity to present a danger to the public" (CEC, 2002). Therefore, the conclusions from the hazard analysis for the Potrero Power Plant project are consistent with the hazard analysis for the ConocoPhillips SCR project.

The August 12, 2005 supplemental comment letter implies that ammonia is being used at the Wilmington site for the first time. As discussed in the Subsequent Negative Declaration, the ConocoPhillips Wilmington Plant currently uses anhydrous ammonia, aqueous ammonia, and anhydrous ammonia in cylinders, primarily for use in other SCR

units. The ConocoPhillips Wilmington Plant has used ammonia at the site for a number of years without incident. The ConocoPhillips Wilmington Plant has not had any reportable release of ammonia associated with operation of the SCR units since it began operating the refinery. Further, there has been no reportable ammonia release associated with ammonia transportation to the site.

Since the hazards associated with ammonia transportation are considered less than significant, no mitigation measures are required.

3-3 The Project May Have Significant Risks From Terrorism and Sabotage

The only increase in hazards associated with the ULSD SCR project is related to the increased transport (one truck every four years) of aqueous ammonia and the increased transport (two cylinders every 10 years) and storage of anhydrous ammonia. The project does not change the potential impacts from a release during transport compared to the existing condition because the mode and routes will not change. The hazard analysis completed for a release of anhydrous ammonia from the two additional cylinders assumed a complete simultaneous release from both of the 150 pound cylinders. The analysis is not based on what caused the release. The release could be caused by human error, mechanical failure, a natural event, e.g., earthquake, or an act of terrorism or sabotage. Regardless of what causes a failure, the hazard impacts discussed in the Subsequent Negative Declaration (see pages 2-26 through 2-30) would not change. Even if a release of ammonia occurred from project-related equipment due to terrorism, the ammonia release to the ERPG-2 level (200 ppm) would be 60 feet for a release from one cylinder and 80 feet for a simultaneous release from both cylinders, which is well within the boundaries of the Refinery (see Subsequent Negative Declaration, Appendix B). The storage of the small quantity of anhydrous ammonia is expected to be less than significant as exposure would be limited to within 80 feet of the SCR Unit. Therefore, the general public would not be exposed to ammonia concentrations that exceed the ERPG-2 levels.

Therefore, as discussed in the Subsequent Negative Declaration and further addressed in Response 3-2, no significant hazard impacts associated with ammonia use are expected.

3-4 Cumulative Impacts of Ammonia and Anhydrous Ammonia Releases to Workers and Residents

The hazard impacts associated with the use, storage and transportation of aqueous and anhydrous ammonia were addressed in the Subsequent Negative Declaration (see pages 2-24 through 2-33 and Appendix C) and summarized in Response 3-2.

The SCAQMD staff disagrees with the commentator's opinion that the proposed project has the potential for cumulative impacts associated with ammonia releases. The comment does not point to any evidence of a potential contribution to cumulative impacts associated with the ULSD project. Instead, the comment claims only that certain other projects should have been considered for cumulative impact purposes. However, the possible existence of cumulative effects from other projects is not a cumulative impact of

this project unless this project contributes to that cumulative effect and the contribution is cumulatively considerable. The Subsequent Negative Declaration determined that this is not the case. As noted in Response 3-2 and the Subsequent Negative Declaration:

- The total increase in ammonia stored at the Wilmington Plant associated with the ULSD project will be two, 150 pound cylinders of anhydrous ammonia.

- Under worst-case meteorological conditions, it was determined that the distance that the release would travel to the ERPG-2 level (200 ppm) would be 60 feet for a release from one cylinder and 80 feet for a simultaneous release from both cylinders, which is well within the boundaries of the Refinery. No other ammonia sources would be located with this area.

- The proposed project would increase the aqueous ammonia deliveries to the site by about 1 truck trip every 4 years and use about 4 gallons of ammonia per day.

- The anhydrous ammonia cylinders will only be used in the event that the aqueous ammonia supply to the SCR Unit is interrupted. If not used, the cylinders would be replaced once every ten years.

The possible existence of cumulative effects from other projects is not a cumulative impact of this project unless this project contributes to that cumulative effect and the contribution is cumulatively considerable. Based on the above, the proposed SCR project impacts on ammonia use are not cumulatively considerable.

The comment indicates that "there are numerous other users of ammonia in the vicinity of the ConocoPhillips Refinery" and that the "Project will have cumulative impacts together with these other projects, particularly if trucks carrying ammonia travel along the same street and neighborhoods." The comment then provides examples of five projects where SCR units were considered as part of CEQA documents. As described below, the projects are not located along the same streets and neighborhoods, with the exception of the ConocoPhillips Carson Plant and the BP Refinery. No cumulative impacts are expected between the identified projects for the following reasons:

1. With the exception of the ConocoPhillips SCR Project at the Carson Plant, the other projects have been constructed and became operational at least two years ago and, therefore, are now a part of the environmental baseline.

2. The Southern California Edison Pebbly Beach Generation SCR Project is located on Catalina Island and uses urea, rather than ammonia. Ammonia is not transported to or stored at the facility, therefore, there are no cumulative impacts of this project and the proposed project.

3. The Etiwanda Generating Station SCR projects are located in Etiwanda in San Bernardino County, over 50 miles from the ConocoPhillips Wilmington Plant. Even in the unlikely event of simultaneous release from the two

facilities, the site hazard impacts of these two facilities will not overlap due to their distance. Simultaneous release during transportation of ammonia to the Etiwanda facilities and the ULSD project is highly unlikely due to the infrequent transportation (about once every four or ten years) for the ULSD project, the low likelihood of release during transportation described at pages 2-28 through 2-30 in the Subsequent Negative Declaration, and different transportation routes would be used. The transport of ammonia to Etiwanda would follow different routes (primarily Interstate 10) than the transport of ammonia to Wilmington. Therefore, there are no cumulative impacts of this project and the proposed project.

4. The BP Carson Refinery Fluid Catalytic Cracking Unit NOx Reduction Project is located in Carson, an estimated three miles from the ConocoPhillips Wilmington Plant. Even in the unlikely event of simultaneous releases from these two facilities, the hazard impacts of these two facilities will not overlap. Simultaneous release during transportation of ammonia to the BP Carson Refinery and the ULSD project is unlikely due to the infrequent transportation (about once every four or ten years) for the ULSD project, and the low likelihood of release during transportation described at pages 2-28 through 2-30 in the Subsequent Negative Declaration. The transport of aqueous ammonia associated with the BP project was estimated to result in an accidental release once every 83,000 years so that the transportation hazards were less than significant.

5. ConocoPhillips Carson Plant is located across the street from the BP Carson Refinery. The hazard analysis for the ConocoPhillips SCR Unit at the Carson Plant indicated that no off-site hazard impact was expected, so even in the unlikely even if simultaneous releases from these two facilities, the hazard impacts from the BP facility and Carson Plant SCR unit project or ULSD project would not overlap. Simultaneous release during transportation of ammonia to the Carson Plant and the ULSD project is unlikely due to the infrequent transportation (about once every four or ten years) for the ULSD project, and the low likelihood of release during transportation described at pages 2-28 through 2-30 in the Subsequent Negative Declaration. The transport of aqueous ammonia associated with the ConocoPhillips SCR unit at the Carson Plant was estimated to result in a release every 992 years so that the transportation hazards were less than significant.

6. The Los Alamitos Generating Station is located in Los Alamitos, about 15 miles from the ConocoPhillips Wilmington Plant. Even in the unlikely event of simultaneous releases from these two facilities, the hazard impacts of these two facilities will not overlap. Simultaneous release during transportation of ammonia to the Los Alamitos facility and the ULSD project is unlikely due to the infrequent transportation (about once every four or ten years) for the ULSD project, different transportation routes would be used, and the low likelihood of release during transportation described at pages 2-28 through 2-

30 in the Subsequent Negative Declaration. The transport of ammonia to Los Alamitos would follow different routes (primarily Interstates 10 and 605) than to Wilmington so there are no cumulative impacts of this project and the proposed project.

Of all the above projects, the use, storage and transport of ammonia were determined to be less than significant in their respective CEQA documents, with the exception of the Los Alamitos Generation Station. In that project, the ammonia transport hazards were considered potentially significant due to the large increase in ammonia transport (240 trips per year). As noted above, even in the unlikely event of simultaneous releases from these two facilities, the hazard impacts of these two facilities will not overlap. The transport of ammonia to Los Alamitos would follow different routes (primarily Interstates 10 and 605) than to Wilmington so there are no cumulative impacts of this project and the proposed project. Based on the above, none of the identified projects in the supplemental comment letter would have cumulative impacts that would affect or interfere with similar effects associated with the ConocoPhillips ULSD project.

3-5 The SCAQMD Has Improperly Piecemealed the ConocoPhillips Two SCR Projects from the ULSD Project

As discussed in the 2004 Final Negative Declaration (see Appendix C, Response 1-43) the ULSD SCR project at the Wilmington Plant and the SCR project at the ConocoPhillips Carson Plant are being undertaken for different reasons. Installation of the SCR unit at the ConocoPhillips Carson Plant is being undertaken to comply with ConocoPhillips' SCAQMD Rule 2009.1 Compliance Plan to meet its RECLAIM allocation levels. The SCR unit at the ConocoPhillips Wilmington Plant is part of the ULSD project, which is required by federal and state regulations and SCAQMD Rule 431.2.

The ConocoPhillips ULSD project was developed to comply with the federal, state and South Coast Air Quality Management District (SCAQMD) regulations that limit the sulfur content of diesel fuels. The diesel sulfur limit of 15 parts per million by weight (ppmw) will help generate substantial air quality benefits by enabling the effective performance of advanced diesel exhaust emissions control technologies that reduce emissions of ozone precursors (nitrogen oxides and volatile organic compounds) and diesel particulate matter.

As described in the 2004 Final Negative Declaration, the ULSD project has two major components: (1) revamp the Mid-barrel Hydrotreater Unit 90 to decrease the hydrotreating reaction space velocity to meet the required diesel sulfur level; and (2) modify the mid-barrel handling and logistics to segregate diesel from higher sulfur jet fuel. The following Refinery units and processes have already been or will be affected by the ULSD project:

- Mid-Barrel Hydrotreater U-90
- Mid-Barrel Handling and Shipping Modifications

- Hydrogen System
- Tank 331
- Crude Unit DU-5 at the Carson Plant
- Replacement of charge heater B-201

The SCR Project at the Carson Plant involves the installation of an SCR Unit to reduce NOx emissions from Boiler 10 at the Carson Plant. The project includes an SCR Unit and ammonia tank at the Carson Plant. No portion of this project will occur at or involve any physical modifications at the Wilmington Plant. The ULSD Project is a separate project that will be located at the Wilmington Plant, about three miles southwest, of the Carson Plant. The ULSD Project will allow ConocoPhillips to produce diesel fuel in compliance with state and federal regulations and is unrelated to the proposed SCR Unit to control NOx emissions from Boiler 10 at the Carson Plant. The SCR project and ULSD project do not rely on each other and one project can be constructed without the other. Further, the two projects have different construction schedules, therefore, peak construction has not and is not expected to overlap. As explained in the 2004 Addendum (page 24), the peak construction impacts will occur at different times for each facility (February 2005 for the SCR Carson Plant and November 2005 for the ULSD project).

Neither the ULSD nor the Carson Plant SCR project is dependent on each other. Operation of one project could still occur in the absence of the other project. Therefore, piecemealing has not occurred for the Carson Plant SCR project and the ULSD project. Moreover, the CEQA documents for each of the two projects show that these two projects provide net environmental benefits. Therefore, this is not a situation where a single larger project has been broken into several smaller projects to avoid environmental review.

3-6 The District Must Consider Alternatives and Mitigation Measures to Highly Toxic Liquid and Gaseous Ammonia Catalysts

CEQA Guidelines §15126.6(a) requires that an "EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but **would avoid or substantially lessen any of the significant effects of the project**, and evaluate the comparative merits of the alternatives." (emphasis added). No significant adverse impacts were identified for the proposed modification to the ULSD project so an alternatives analysis is not required.

CEQA Guidelines §15126.4(a) (3) indicates that "(m)itigation measures are not required for effects which are not found to be significant." No significant adverse impacts were identified for the proposed modification to the ULSD project so mitigation measures are not required.

3-7 The SND is Inadequate Because it is Inconsistent with the 2003 AQMP EIR

Pursuant to CEQA Guidelines §15125(d), "The EIR shall discuss any inconsistencies between the proposed project and applicable general and regional plans." Requirements

for preparing a negative declaration (CEQA Guidelines §15071) do not include the requirement to discuss consistency with general or regional plans. In spite of this distinction, the proposed ConocoPhillips SCR project at the Wilmington Plant is not inconsistent with the 2003 AQMP as explained in the following paragraph.

The SCAQMD has found that the storage and transport of anhydrous ammonia in the volumes typically used as the primary reducing agent in SCRs will usually result in potentially significant hazard impacts as referenced in the Final Program Environmental Impact Report (PEIR) for the 2003 AQMP. The Final PEIR did not conclude that the use of anhydrous ammonia could result in potentially significant impacts in every situation. The use of anhydrous ammonia used as the primary reducing agent in SCR systems generally requires the transport and storage of significant quantities of ammonia, e.g., ammonia is generally stored in 5,000 to 10,000 gallon storage tanks and transported in tanker trucks that contain about 5,000 to 7,000 gallons. The proposed SCR system at the ConocoPhillips Wilmington Refinery will not use anhydrous ammonia as the primary reducing agent, rather, it will use aqueous ammonia, which is consistent with mitigation measure HZ2 in the Final PEIR for the 2003 AQMP and, therefore, would be consistent with the 2003 AQMP. A maximum of 300 pounds of anhydrous ammonia could be used as a backup if the supply of aqueous ammonia to the SCR unit is interrupted. The temporary use of anhydrous ammonia would allow ConocoPhillips to continue to operate the SCR unit, continue to reduce NOx emissions from charge heater B-401, but would allow time for the heater to be safely shutdown. For the proposed SCR project, a detailed hazard analysis was completed which determined that the use of ammonia for this project would be less than significant, due to the small quantities of ammonia used.