STATE OF CALIFORNIA Letter1 GRAY DAVIS, *Governor*

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January 11, 2001

File Ref: W 9777.216
W 9777.56

Ms. Nadell Gayou
The Resources Agency
1020 Ninth Street, 3rd Floor
Sacramento, CA 95814

Mr. Jonathan Nadler
South Coast Air Qaulity Management District
21865 Copley Drive
Los Angeles, CA 91765

Dear Ms. Gayou and Mr. Nadler:

Staff of the California State Lands Commission (CSLC) has reviewed the Draft Environmental Impact Report (DEIR) for the ARCO California Air Resources Board Phase 3 – MTBE Phase-out Project, SCH #2000061074. Based on this review, we offer the following comments.

Jurisdictional Issues:

1. Table 2.8-1, Agency Permit or Approval, State: Include California State Lands Commission, Marine Facilities Division in this table. 1-1

2. As a result of the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act) of 1990, as amended, the California State Lands Commission (CSLC) has adopted regulations for the inspection and monitoring of marine oil terminals, inspection and testing of marine oil terminal pipelines, testing and certification of marine oil terminal personnel, and structural requirements for vapor recovery systems (CCR Sections 2300 through 2571). In further keeping with the mandates of the Act (Section 8755), regulations pertaining to structural (and seismic), mechanical and electrical systems of marine oil terminals are in final draft.

   The transfer of pentane from the refrigerated storage tank, across the dock to vessels for export, is within the jurisdiction of the CSLC. As such, changes to the operations manual will be required (Section 2385). Although ethanol may not be a 1-2

1-1 Table 2.8-1- List of Federal, State, and Local Permits, Approval, and Other Requirements has been revised

1-2 The operations manual for Marine Terminal 2 will be modified as appropriate. Section 2.4.4 has been revised accordingly.

To further ensure safe design and operation of the dedicated ethanol pipeline, Marine Terminal 2 design changes will be submitted to CSLC for review for compliance with applicable API and OCIMF standards, guidelines, and recommended practices. See Table 2.8-1.

Letter 1

regulated product, the CSLC has an interest in the design and safe operation of the dedicated ethanol transfer pipeline proposed at the marine oil terminal. Therefore, all marine oil terminal design changes should be reviewed by CSLC for compliance with appropriate API and OCIMF standards, guidelines, and recommended practices.

3. Table 2.8-1, Federal: This table should identify the U.S. Coast Guard with responsibility over vessels operating at the marine terminal and responsibility for any changes associated with the operation of the marine terminal. 1-3

Specific Comments

1. The PHGA (Peak Horizontal Ground Acceleration) quoted on page 3-75 is 0.45 to 0.59 g's, with the Newport-Inglewood fault 4.3 miles away. On pg. 3-77 it is stated that the area of the marine terminal is subject to liquefaction. On pg. 4-104, it is stated that "ARCO will adhere to the current Uniform Building Code, Zone 4". We are concerned because:

   a. The Uniform Building Code is primarily for on-land, occupied structures. It may not be adequate for a 100,000 bbl pentane tank placed on soil that may liquefy during an earthquake, nor would it be applicable to a highly volatile petroleum pipeline support system on an aging wharf. 1-4

   b. For the pipeline, from the tank to the wharf/pier, there is no discussion of a pipeline stress analysis using the seismic displacements of the wharf/pier and the hard point being the tank. We inspected this facility in 2000, and some of berths 77-79 are concrete pile structures, with a concrete deck. In some areas, the concrete piles are cracked and damaged. A Uniform Building Code approach to this structure will not provide adequate seismic displacements for input to the pipeline stress analysis. 1-5

2. The new 100,000-bbl tank is to be placed where an existing tank is to be removed, and the soil excavated 5 feet. Has this been found to be acceptable by a geotechnical engineer? Were additional borings/soil data required? What about the liquefaction and high lateral seismic coefficients for this area? Has the design considered a concrete slab with piles as an alternative to minimize the effects of liquefaction? Please also include information about the tank supports. Please address the possibility of fluid sloshing or the possibility of the loss of power (refrigeration) following an earthquake. The document states that they will conform to CalARP, which is primarily for existing tanks/pipelines that contain or transport RS. The 100,000 bbl pentane tank has an estimated radius to endpoint (described as 5Kw/M^2 for 40 seconds) of 3712 meters or 2.3 miles, versus the existing 20,000 bbl nonene tank with a radius of 2257 meters, or 1.4 miles. This is a significant 1-6

1-3 Table 2.8-1 has been revised to include the U.S. Coast Guard responsibility associated with applicable marine terminal and associated vessel operations.

1-4 UBC code changes in 1997 incorporate design considerations for locations in proximity to known fault lines. For the tank and its foundation the design incorporates pre-stressed concrete piles down to bedrock with a concrete pile cap to support the tank during any liquefaction. The tank will be anchored to the pile cap to prevent liquid sloshing during seismic events. The applicable codes for this design are:

Tank: API Standard 650-1998
Tank Anchor Bolt Chair: AISI E-1, Volume II, Part VII
Anchor Bolts: UBC (1997), Section 1923 and API Section E.6
Foundation: UBC (1997)
Soil Profile For Liquefiable Soil, Type SF: Section 1629.3.1 and Table 16-Q (Seismic Coefficient C_a), Footnote #1.
A Geotechnical Investigation Report will be prepared.
Foundation Pile & Pile Cap: Sections 1915, 1916, & 1918.

1-5 For the piping, the stress analysis will incorporate seismic accelerations from UBC (1997), design pressures, design temperatures, and the loads/displacements from points of contact along the pipe (tank nozzle, supports, guides, restraints, shipping pump, and loading arms on the wharf). The analysis will be performed using CAESAR II software in accordance with ASME B31.4. For those locations along the piping that require supports and anchors, consideration will be made so that the structure can safely restrain the additional loads during normal and seismic events

1-6 The new 100,000 bbl pentane tank is to be sited in an area which is largely unoccupied. Two small tanks near the edge of the new tank will be removed, largely because the two tanks will not be required and the extra space will make for a cleaner design. Excavation for the proposed tank will be 3 feet 6 inches below grade. The piles will be driven into the existing soil to bedrock (approximately 80 feet). A concrete pile cap will than be poured over the pile ends. The design of the foundation will address liquid sloshing (see 1-4) and loss of refrigeration power during seismic events. The details of the tank and foundation designer will include appropriate input from a geotechnical engineer. With proper design the tank will operate in a safe manner

As indicated in the Draft EIR, the new pentane tank is expected to increase potential hazard risks compared to the existing nonene tank. As a result, mitigation measures (H-1 and H-2) with multiple components have been identified to address this increase in risk. In spite of requiring these and six other mitigation measures to address other potential risks from the proposed project, hazard impacts remain significant as indicated on page 4-87 of the Draft EIR.

increase and, as explained on pg. 4-80, can affect people a long distance away. The tank is neither a typical petrochemical tank nor located in the middle of an isolated refinery.

3. Pentane is to be transported via existing pipelines to the new tank adjacent to the marine oil terminal. Please address the condition of this existing pipeline and the Maximum Allowable Operating Pressure (MAOP) discussed. Has the pipeline been tested recently, checked for corrosion, smart pigged, etc.? Will pipeline modifications be necessary to allow the transfer of pentane in a liquid form, i.e., addition of insulation around pipelines? Please discuss any necessary modifications to the existing pipeline. 1-7

4. Pg. 4-69, bullet #5: The risk analysis should compare the risk of pentane to nonene, tetramers and methanol, not ethanol. 1-8

5. Appendix C, Hazard Impact Calculations, Pg. C-3. Typo. According to Pg. 4-79, the dike height is 19.5 feet, not 195 feet. Please note that these equations and their results were not checked due to time limitations. 1-9

6. Since Pentane must remain cool to be in liquid form, what type of vessel will be used to export the product e.g., isolated refrigerated tanks? Are there additional hazards associated with the operation of this type of vessel over and above those associated with vessels that currently call at the marine oil terminal? In the past, the U.S. Coast Guard has added additional waterway management requirements to gas carriers and other vessels of high risk. These requirements have included closing of the ship channel during vessel transits and only allowing one way traffic in the vicinity of the facility. Such requirements could have a significant impact on other port users and should be evaluated in the document. 1-10

Thank you for your consideration of these comments. If you have any questions, please contact Maurya Falkner at (562) 499-6312.

Sincerely,

Dwight E. Sanders, Chief
Division of Environmental Planning
And Management

cc: Gary Gregory
Maurya Falkner

1-7 The MAOP for the existing pipelines carrying pentane and any new piping required to connect the new pentane tank, pumps, and docklines will be 720 psig. There will be some modifications to extend the pipeline to the pentane facilities within the refinery and to the new tank at the marine terminal. The existing pipelines which could be converted to pentane services are all coated and protected with impressed current cathodic protection and pipeline records do not indicate a history of leakage. None of these lines are subject to periodic CSFM hydrotesting, but are scheduled to be hydrotested to a MAOP of 720 psig (per ASME B31.4), thus confirming the condition of the existing pipelines. No insulation is to be installed on the buried portion of the pipeline, only on the aboveground portions. Insulation is not required on the buried portion due to the low differential between the temperatures of the ground and the chilled pentane necessary to transfer the pentane. This portion of pipeline refers to approximately 600 feet of new piping within T-2 will connect the existing pipeline from the refinery with new pentane tank, existing pumps, and to the loading arms on the wharf.

1-8 The text on page 4-69 has been modified to reflect the comparison of pentane to nonene in the hazards analysis.

1-9 The dike height has been corrected to 19.5 feet.

1-10 Pentane has a slightly higher heat of combustion than gasoline. In the event of a fire, a pentane carrying ship would have a slightly higher impact than a similar sized gasoline ship. Pentane has a higher vapor pressure than gasoline (at the same temperature) and is more volatile than gasoline so pentane requires more careful handling. The bulk temperature of pentane in an unrefrigerated ship can be estimated from EPA equations for the bulk storage of organic liquids (Compilation of Air Pollutant Emission Factors, Volume 1, Fifth Edition). Using temperature data for Long Beach for the hottest summer month (August), unrefrigerated bulk pentane is estimated to remain in the mid 70° F temperature range. This temperature is well below the boiling point of pentane at atmospheric pressure.

According to LTJG Ken O'Conner of the LA/LB U.S. Coast Guard, there are not issues with shipping pentane that would effect other harbor users. He also stated that there is a requirement that a notification be made to the Coast Guard concerning the sailing time and berth locations since pentane is noted as a hazardous cargo, but is not in the same class as natural gas shipments (personal communication with James Bobbitt, ARCO, February 5, 2001)

Letter 2

Department of Toxic Substances Control

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Edwin F. Lowry, Director
1011 N. Grandview Avenue
Glendale, California 91201

Gray Davis
Governor

January 16, 2001

Mr. Jonathan D. Nadler
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

DRAFT ENVIRONMENTAL IMPACT REPORT FOR ARCO, CALIFORNIA AIR RESOURCES BOARD PHASE 3 – MTBE PHASE-OUT PROJECT, LOS ANGELES, CALIFORNIA - SCH #2000061074

Dear Mr. Nadler:

The Department of Toxic Substances Control (DTSC) has received your draft Environmental Impact Report (EIR) for the above mentioned project. Based on the review of the document, DTSC comments are as follows:

1) The draft EIR needs to identify and determine whether current or historic uses at the project site have resulted in any release of hazardous waste/substances at the project area. 2-1

2) If during construction of the project, soil and/or groundwater contamination is suspected, construction in the area should stop and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exists, the draft EIR should identify how any required investigation and/or remediation will be conducted, and which government agency will provide appropriate regulatory oversight. 2-2

If you have any questions, please contact Ms. Jessy Philip, Project Manager, at (818) 551-2174 or me at (818) 551-2877.

Sincerely,

Harlan R. Jeche

Harlan R. Jeche
Unit Chief
Southern California Cleanup Operations - Glendale Office

cc: See next page.

2-1 According to CEQA Guidelines Section 15125, an EIR must include a description of the physical environmental conditions in the vicinity of the project at the time the notice of preparation is published, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact from a proposed project is significant. The environmental setting is described in Section 3.0 of this EIR. Section 4.0 identifies and focuses on the significant environmental effects of the proposed project (as per Section 15126.2 of the CEQA Guidelines). These sections include a description of the contaminants that are expected to be found in excavated soil that may be encountered during project construction. As stated in Section 4.0, construction activities could uncover asbestos-containing soils and hydrocarbon-contaminated soils. Asbestos-containing soils uncovered during project construction would be handled in accordance with the Soil Handling Plan developed by ARCO. Hydrocarbon-contaminated soil would be handled in accordance with appropriate federal, state, and local regulations, including SCAQMD Rule 1166-Volatile Organic Compounds Emissions from Decontamination of Soil, the federal Resource Conservation and Recovery Act, the RWQCB's Remedial Action Plan requirements, the City of Carson's Site Plan and Design Review standards, and the DTSC's Hazardous Waste Management Program. These requirements are summarized in Table 2.8-1 of the EIR. Additionally, mitigation measures have been proposed to reduce the risk of release of hazardous substances into the environment, such as employee training in accordance with 29CFR1910.120 – Hazardous Waste Operations and Emergency Response.

It should also be noted that one of the primary goals of the proposed project is to phase out MTBE to address existing statewide groundwater contamination issues.

2-2 As discussed in Section 3.12.3.4, ARCO will sample and analyze soils within the vicinity of the proposed units prior to construction. It is anticipated that this soil will have similar characteristics to that of previously excavated soil.* Such soil will be handled in accordance with the appropriate federal, state and local regulations. The specific actions that would be undertaken to remediate any potential soil contamination is more appropriately addressed, in a remedial action plan, which is prepared after a site evaluation by the public agency responsible for site remediation, typically, the local Regional Water Quality Control Board.

* (Analytical profiles conducted on soils previously excavated from other portions of the LAR have indicated that approximately 90 percent of the soil was classified as non hazardous and 10 percent was classified as a California hazardous waste.)

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief
Planning and Environmental Analysis Section
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Letter 3

P. O. BOX 570 · LONG BEACH, CA 90801-0570 · TELEPHONE (562) 437-0041 · FAX (562) 901-1725

January 11, 2001

Mr. Jonathan D. Nadler
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765-4182

Subject: Comments on Draft ARCO CARB Phase 3 – MTBE Phase-out Project EIR

Dear Mr. Nadler:

Thank you for providing the Port of Long Beach with the opportunity to comment on the subject draft EIR. Please be aware that prior to commencing construction at ARCO's Marine Terminal 2, ARCO will need to obtain a Harbor Development Permit from the Port of Long Beach. Since the proposed project includes the construction of a 100,000-barrel pentane tank that increases the risk of upset in the Port of Long Beach, an Application Summary Report, pursuant to the California Coastal Act, will need to be prepared to evaluate the proposed project's impacts on Port vulnerable resources, as defined by the Port Risk Management Plan (RMP). 3-1

One of the goals of the Port Master Plan (PMP), the guiding document for development within the Port of Long Beach, includes the minimization of hazards as a goal for development. Accordingly, we encourage the South Coast Air Quality Management District to adopt Alternative 1, as described in Chapter 5, or develop another alternative that meets the project objectives and reduces the risk of upset at the proposed site location. That alternative would allow ARCO to complete their project, while reducing risk to the Port and surrounding Long Beach area, and most closely reflects the stated goals of the PMP and RMP. 3-2

If you have any questions, please call Thomas Jelenic at (562) 590-4160.

Sincerely,

Robert Kanter

Robert Kanter, Ph.D.
Director of Planning

TAJ:s

PRESIDENT'S "E" AND "E-STAR" AWARDS FOR EXCELLENCE IN EXPORT

3-1 Table 2.8-1 – List of Federal, State and Local Permits, Approval and Other Requirements has been modified to reflect the requirement for a Harbor Development Permit. Section 4.5 could be utilized in the preparation of an Application Summary Report pursuant to the California Coastal Act.

3-2 Alternative 1 is identified as environmentally superior to the proposed project as it relates to air quality and hazards. However, since the proposed pentane storage capacity at Marine Terminal 2 would be greater than at LAR, there would be increased operational flexibility for the exportation of pentane in the event that there is a disruption in the transportation of pentane. The pentane tank Marine Terminal 2 would provide an additional five days of pentane storage over Alternative 1. For this reason, the proposed project is the preferred alternative to achieve the phase out of MTBE and production of CARB Phase 3 gasoline. Refer to Table 1.4-1 for a summary of the merits of each project alternative compared to the proposed project.

SOUTHERN CALIFORNIA

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Letter 4

December 5, 2000

Mr. Jonathan D. Nadler
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765

RE: SCAG Clearinghouse I20000576 ARCO California Air Resources Board Phase 3 -- MTBE Phase-out Project

Dear Mr. Nadler:

We have reviewed the above referenced document and determined that it is not regionally significant per Areawide Clearinghouse criteria. Therefore, the project does not warrant clearinghouse comments at this time. Should there be a change in the scope of the project, we would appreciate the opportunity to review and comment at that time. 4-1

A description of the project was published in the **December 1, 2000** Intergovernmental Review Report for public review and comment.

The project title and SCAG Clearinghouse number should be used in all correspondence with SCAG concerning this project. Correspondence should be sent to the attention of the Clearinghouse Coordinator. If you have any questions, please contact me at (213) 236-1867.

Sincerely,

JEFFREY M. SMITH, AICP
Senior Planner
Intergovernmental Review

4-1 The SCAQMD acknowledges that the proposed project is not regionally significant per Area Wide Clearinghouse criteria.

Letter 5

STATE OF CALIFORNIA –BUSINESS AND TRANSPORTATION AGENCY PETE WILSON, *Governor*

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, ADVANCE PLANNING
IGR OFFICE 1-10C
120 SO. SPRING ST.
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Jonathan D. Nadler
SCAQMD Headquarters
21865 East Copley Dr.
Diamond Bar, CA. 91765

Re:IGR/CEQA 001176NY
ARCO CARB Phase 3
SCH# 2000061074

December 13, 2000

Dear Mr. Nadler:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the proposed ARCO CARB Phase 3 Project.

We would like to remind you that any transportation of heavy construction equipment and/or materials which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. We recommend that large size truck trips be limited to off-peak commute periods. 5-1

If you have any questions, please call Mr. Yerjanian at (213) 897-6536 and refer to **IGR/CEQA 001176NY**.

Sincerely,

STEPHEN J. BUSWELL
IGR/CEQA Program Manager
Transportation Planning Office
District 7

CC: R. Helgeson

5-1 As discussed in the Draft EIR Section 4.6-5, truck operations for the delivery of over-size equipment and materials will be conducted to the maximum extent possible during off-peak hours to minimize traffic impacts. The permits to transport over-sized loads over state highways will be acquired through the California Transportation Department. Deliveries of large or odd size materials and equipment will be shipped into the refinery over existing railroad lines.

Letter 6

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

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JAMES F. STAHL
Chief Engineer and General Manager

December 14, 2000

File No: 02-00.04-00
03-00.04-00
08-00.04-00
29-00.04-00

Mr. Jonathan D. Nadler
Planning/CEQA
South Coast Air Quality
Management District
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Dear Mr. Nadler:

Proposed ARCO CARB Phase 3 - MTBE Phase-out Project

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Completion of a Draft Environmental Impact Report for the subject project on November 29, 2000. We offer the following comment regarding sewerage service:

- The proposed project will have no effect on the Districts' wastewater facilities. 6-1

If you have any questions, please contact the undersigned at (562) 699-7411, extension 2717.

Very truly yours,

James F. Stahl

Ruth I. Frazen
Engineering Technician
Planning & Property Management Section

RIF:eg

c: B. Perry

::ODMA\PCDOCS\DMS\230451

Recycled Paper

6-1 Comment noted. The SCAQMD acknowledges that the proposed project will have no effect on the Los Angeles County Sanitation District's wastewater facilities.

Letter 7

County of Orange
Planning & Development Services Department

THOMAS B. MATHEWS
DIRECTOR

300 N. FLOWER ST.
SANTA ANA, CALIFORNIA

MAILING ADDRESS:
P.O. BOX 4048
SANTA ANA, CA 92702-4048

NCI. 00-134

December 28, 2000

Jonathan D. Nadler
SCAQMD
21865 E. Copley Drive
Diamond Bar, CA 91765

SUBJECT: DEIR for ARCO CARB Phase 3/MTBE Phase-out Project

Dear Mr. Nadler:

Thank you for the opportunity to respond to the above referenced project. The County of Orange has reviewed the Draft Environmental Impact Report (DEIR) and has no comment at this time. However, we would appreciate being informed of any further developments. 7-1

If you have any questions, please contact me or feel free to call Charlotte Harryman directly. Charlotte may be reached at (714) 834-2522.

Very truly yours,

George Britton

George Britton, Manager
Environmental and Project
Planning Services Division

CH

7-1 The SCAQMD acknowledges that the County of Orange has no comment on the Draft EIR.