

SHELL CRUDE TANK REPLACEMENT PROJECT

Final Environmental Impact Report
SCH No. 2010022034
County File No. LP10-2006



Contra Costa County
Department of Conservation
and Development

October 2011



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October 2011

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CHAPTER 1

Introduction

1.1 Purpose of this Document

The California Environmental Quality Act (CEQA) and its implementing regulations (the “CEQA Guidelines”) require a lead agency to prepare and certify a Final Environmental Impact Report (FEIR) before it may approve a project for which a Draft Environmental Impact Report (DEIR) has been prepared. This document, together with the July 2011 Shell Crude Tank Replacement Project DEIR (SCH No. 2010022034, County File No. LP10-2006), constitutes the FEIR for the Shell Crude Tank Replacement Project (the Project) proposed by Equilon Enterprises, LLC, doing business as Shell Oil Products U. S. (Shell) (Applicant).

On July 28, 2011, the Contra Costa County Department of Conservation & Development (the County) released the DEIR on the Project for public review and comment. The DEIR is available for public review at the offices of the County, which are located in the County Administration Building, 651 Pine Street, 4th Floor - North Wing, Martinez, California, at public libraries located in the vicinity of the Project site, and online at: www.cocoplans.org. The DEIR describes the Project and its environmental setting; analyzes potential direct, indirect and cumulative environmental impacts related to the construction, operation, and maintenance; identifies impacts that could be significant; recommends mitigation measures, which, if adopted, could avoid or minimize such impacts; and identifies impacts that are expected to remain significant and unavoidable, even with the implementation of recommended mitigation measures. The DEIR also evaluates alternatives to the Project, including a No Project Alternative, as required by CEQA.

The public review and comment period on the DEIR that began July 28, 2011, and ended Monday, September 12, 2011, lasted for a period of 45 calendar days. The County Zoning Administrator held a public hearing on August 29, 2011, to accept comments on the DEIR from agencies, organizations, and individuals. The public hearing was held at 3:30 p.m. in Room 107 of the McBrien Administration Building, 651 Pine Street, Martinez, California. The County provided notification of the public review period and the public hearing to: 1) public agencies; 2) adjacent property owners and occupants; and 3) organizations that had demonstrated particular interest in the Project. No oral comments were received at the August 29, 2011, public hearing and written comments were received through September 14, 2011. Some comments were received after the end of the comment period and were accepted. Responses to all comments are provided in Chapter 2, *Comments and Responses*.

This FEIR will be used by the County in its consideration of the Applicant’s Land Use Permit (LUP) application for the Project. The County Planning Commission will decide whether to

certify the FEIR and approve the requested LUP at a public hearing anticipated to be held in November 2011. Public notification will be provided in accordance with State law upon confirmation of the hearing date.

1.2 Project Overview

Shell's Martinez Refinery (Refinery) is located approximately 25 miles northeast of San Francisco adjacent to the community of Martinez. The primary processing area of the Refinery is between Pacheco Boulevard and Marina Vista, and the wastewater treatment plant and wharf operations are between Marina Vista and the Carquinez Strait. Approximately 20 percent of the Refinery is located within the corporate limits of the City of Martinez. The remainder of the Refinery is in an unincorporated area of the County. All of the Project components would be constructed within the unincorporated area of the County. Construction and operation of equipment associated with the Project would be within the current Refinery property boundaries. The Project includes the following three components: Crude Oil Storage Tanks Replacement; Increased Crude Oil Shipments Received at the Marine Terminal; and Emission Reductions Measures. Below are summaries of each of the three Project components:

- **Crude Oil Storage Tanks Replacement** – Replacement of two existing crude oil storage tanks and the existing crude oil mix tank with three new, larger crude oil storage tanks, and construction of a new crude oil mix tank. The CTRP would also include refurbishment of an existing storage tank for crude oil service. The CTRP would result in an increase in storage capacity at the facility of approximately 800 thousand barrels (MBbl);
- **Increased Crude Oil Shipments Received at the Marine Terminal** – Increase the volume of crude oil shipments received at the marine terminal by approximately one ship per week to maintain production levels as crude oil delivered by vessel replaces San Joaquin Valley (SJV) crude oil received by pipeline; and
- **Emission Reductions Measures** – Implementation of criteria pollutant and greenhouse gas emission reduction components as proposed measures to reduce Project emissions to or below applicable CEQA thresholds.

1.3 Organization of the FEIR

CEQA Guidelines § 15132 requires FEIRs to consist of the following elements:

- (a) The DEIR or a revision of the draft;
- (b) Comments and recommendations received on the Draft EIR either verbatim or in summary;
- (c) A list of persons, organizations, and public agencies that commented on the Draft EIR;
- (d) The responses of the lead agency to significant environmental points raised in the review and consultation process; and
- (e) Any other information added by the lead agency.

Printed copies of this FEIR contain CD copies of the DEIR. Copies of this FEIR will be provided in either printed- or CD-format to all agencies, organizations and individuals who received copies of the DEIR. The following elements of this document, in combination with the DEIR, constitute the complete FEIR for the Project:

Chapter 1, *Introduction.*

Chapter 2, *Comments and Responses.* This chapter contains copies of the written comments received on the DEIR, and individual responses to the comments.

Chapter 3, *EIR Text Revisions.* This chapter contains text changes to the DEIR that reflect additions, corrections and clarifications resulting from the analysis conducted by the County in preparing responses to comments on the DEIR. These changes are incorporated as part of the FEIR.

CHAPTER 2

Comments and Responses

This chapter lists the entities that provided comments on the DEIR, provides copies of written comments received, and responds to those comments. As required by CEQA, these responses to comments address environmental issues raised by commenters during the review period (Pub. Res. Code § 21091(d); CEQA Guidelines §§ 15088(a), 15132). The County has elected to address concerns and suggestions regarding the adequacy and accuracy of the DEIR that were raised by commenters after the review period closed (Pub. Res. Code § 21091(d)) as well as provide responses to all commenters prior to consideration of the EIR for certification (Pub. Res. Code § 21092.5).

Where the text of the DEIR has been revised in response to a comment or concern, the revised text is included as part of the response with revisions shown using the following conventions: text changes are shown in indented paragraphs, text added to the DEIR is shown in underline, and text deleted from the DEIR is shown in ~~striketrough~~. These text changes also appear in Chapter 3, *EIR Text Revisions*.

2.1 List of Commenters

The Contra Costa County Zoning Administrator held a public hearing to accept comments on the DEIR on Monday, August 29, 2011; no commenters spoke and no testimony was presented regarding the adequacy or accuracy of the environmental analysis during the hearing. The County received seven comment letters on the DEIR from agencies; no comments were received from other organizations or individuals. The agencies identified in Table 2-1 provided written comments on the DEIR.

A copy of each comment letter is provided in this chapter, identified by a letter of the alphabet, and individual comments are ordered sequentially. For example, the letter received by Contra Costa Water District is identified as Letter F. Comment 2 within Letter F is coded F-2. Responses to the comments from each letter are presented immediately after that comment letter.

2.2 Comment Responses

This section includes the letters received, with individual comments delineated as indicated above, followed by responses to each comment.

**TABLE 2-1
COMMENTERS ON THE SHELL CRUDE TANK REPLACEMENT PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

Comment Letter	Written Comments	Date
A	State Clearinghouse and Planning Unit, Scott Morgan, Director	September 13, 2011
B	Bay Area Air Quality Control District, Jean Roggenkamp, Deputy Air Pollution Control Officer	September 12, 2011
C	California Department of Transportation, Gary Arnold, District Branch Chief	September 12, 2011
D	City of Martinez, Tim Tucker, P.E., City Engineer	August 18, 2011
E	Contra Costa Health Services, Joseph G. Doser, Supervising Environmental Health Specialist	September 14, 2011
F	Contra Costa Water District, Mark A. Seedall, Principal Planner	September 8, 2011
G	Contra Costa County Fire Protection District, Robert Marshall, Fire Inspector	September 8, 2011



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

September 13, 2011

Telma B. Moreira
Contra Costa County Conservation and Development
651 Pine Street
4th Floor, North Wing
Martinez, CA 94553

Subject: Shell Crude Tank Replacement Project
SCH#: 2010022034

Dear Telma B. Moreira:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on September 12, 2011, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

A-1

SCH# 2010022034
Project Title Shell Crude Tank Replacement Project
Lead Agency Contra Costa County

Type EIR Draft EIR
Description Replacement of two existing crude oil storage tanks and the existing crude oil mix tank with three new larger crude oil storage tanks, and construction of a new crude oil mix tank. The proposed Project will also include refurbishment of an existing storage tank to allow it to be returned to crude oil service. Increase in the volume of crude oil shipment received at the marine terminal, implement emission reduction projects as proposed measure to reduce emission to, or below CEQA thresholds.

Lead Agency Contact

Name Telma B. Moreira
Agency Contra Costa County Conservation and Development
Phone (925) 335-1217 **Fax**
email
Address 651 Pine Street
4th Floor, North Wing
City Martinez **State** CA **Zip** 94553

Project Location

County Contra Costa
City Martinez
Region
Lat / Long 38° 02' N / 122° 12' W
Cross Streets Shell Avenue/Pacheco Boulevard
Parcel No. 378-072-016
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways Carquinez Straight
Schools
Land Use GP: Heavy Industry
Z: Heavy Industrial

Project Issues Aesthetic/Visual; Air Quality; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Public Services; Toxic/Hazardous; Traffic/Circulation; Water Quality; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; San Francisco Bay Conservation and Development Commission; Department of Water Resources; Resources, Recycling and Recovery; California Highway Patrol; Caltrans, District 4; Air Resources Board, Major Industrial Projects; State Water Resources Control Board, Division of Financial Assistance; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission; California Energy Commission

Date Received 07/28/2011 **Start of Review** 07/28/2011 **End of Review** 09/12/2011

2.2.1 Letter A – Responses to Comments from State Clearinghouse and Planning Unit (SCH)

- A-1 The comment that the DEIR has complied with State Clearinghouse review requirements is noted.



BAY AREA
AIR QUALITY
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DISTRICT
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ALAMEDA COUNTY
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(Chairperson)
Scott Haggerty
Jennifer Hosterman
Nate Miley

CONTRA COSTA COUNTY
John Gioia
(Vice-Chair)
David Hudson
Mark Ross
Gayle B. Uilkema

MARIN COUNTY
Harold C. Brown, Jr.

NAPA COUNTY
Brad Wagenknecht

SAN FRANCISCO COUNTY
John Avalos
Edwin M. Lee
Eric Mar

SAN MATEO COUNTY
Carole Groom
Carol Klatt

SANTA CLARA COUNTY
Susan Garner
Ash Kaira
(Secretary)
Liz Kniss
Ken Yeager

SOLANO COUNTY
James Spering

SONOMA COUNTY
Susan Gorin
Shirlee Zane

Jack P. Broadbent
EXECUTIVE OFFICER/APCO

September 12, 2011

Telma B. Moreira
Contra Costa County Community Development
Department of Conservation & Development
651 Pine Street, 4th Floor – North Wing
Martinez, CA 94533

Subject: DEIR Prepared for the Shell Crude Tank Replacement Project

Dear Ms. Moreira:

Bay Area Air Quality Management District (District) staff has reviewed the County's Draft Environmental Impact Report (DEIR) prepared for the proposed crude tank replacement project at the Shell Refinery in Martinez. The District understands that the project's primary goal is to expand the refinery's storage capacity to accommodate an increase in crude oil delivered to its marine terminal. The project includes the following components: two existing crude oil storage tanks to be replaced with three new larger crude oil tanks; the refurbishment of an existing crude oil storage tank; and an existing crude oil mixing tank to be replaced by a new crude oil mix tank. In addition, Shell has committed to making several operational changes to refinery equipment and implementing on-site emission reduction projects as measures to reduce project emissions.

B-1

District staff has the following specific comments on the DEIR.

Marine Vessel Emissions

In response to questions from the District, Shell submitted to the District a "Vessel Transit Distance Summary" on August 8, 2011 (attached). The Vessel Transit Distance Summary estimates criteria pollutant and greenhouse gas (GHG) emissions associated with the increased vessel trips that will deliver crude oil to the marine terminal using average vessel speeds, transit time, combustion rate in gallons/hour, and combustion emission factors. District staff has reviewed this estimate and concurs with the approach taken. Staff recommends the Vessel Transit Distance Summary be included in the Final EIR as a technical appendix.

B-2

Particulate Matter (PM_{2.5})

The DEIR's air quality analysis estimates the annual increase in particulate matter (PM) emissions associated with the construction and operation of the project. The project's PM_{2.5} emissions are compared to the District's mass thresholds of 54lbs per day and 10 tons per year. However, the analysis does not compare the project's operational emissions to the PM_{2.5} > 0.3 µg/m³ annual average risk and

B-3

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Comment Letter B

Telma B. Moreira

- 2 -

September 12, 2011

hazard threshold. Staff recommends that the air quality analysis compare the project's PM_{2.5} emissions to the District's project-level risk and hazard threshold of PM_{2.5} > 0.3 µg/m³ annual average.

↑
B-3

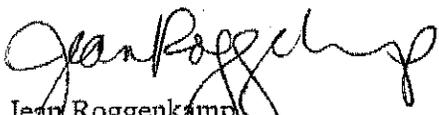
Mitigation Measures

Staff acknowledges Shell's commitment to offset the project's annual increases of approximately 79 tons of nitrogen oxide (NO_x) and 17,874 metric tons of GHG emissions. Staff understands that these emission reductions are being attributed to implementing three on-site projects proposed for reducing fuel consumption and increasing energy efficiencies at various pieces of refinery equipment. This includes installing a new air preheater at the Crude Unit Furnace F-40, restricting the firing rates at the Distillates Hydrotreater F-13909, and making a number of operational changes to the Catalytic Cracking Unit. To ensure that the reductions are enforceable, staff recommends that the County make **Mitigation Measure 4.8-2** conditions of approval in the land use permit.

↑
B-4

District staff is available to assist the County staff in addressing these comments. If you have any questions, please do not hesitate to contact Ian Peterson, Environmental Planner, at (415) 749-4783 or at ipeterson@baaqmd.gov.

Sincerely,



Jean Roggenkamp
Deputy Air Pollution Control Officer

Attachment

- cc: BAAQMD Vice-Chairperson John Gioia
- BAAQMD Director David Hudson
- BAAQMD Director Mark Ross
- BAAQMD Director Gayle B. Uilkema

Attachment A

Vessel Transit Distance Summary

Shell REFEMS and Title V permits provide total emissions limits for a number of refinery units including the wharf. The CTRP does not involve any modifications to the Shell Marine Oil Terminal (MOT). While emissions increases from the additional vessel calls will occur, the increases in emissions will be within the REFEMS/Major Facility Review (Title V) permit BAAQMD limits and the CTRP does not involve any change in those limits. However, the CTRP is required to offset the vessel emission increase under the California Environmental Quality Act because a different "actual" emissions baseline is used. Per BAAQMD request, this narrative is provided to summarize the methodology used by Shell to determine the amount of vessel emissions offsets needed for CEQA and the methodology used to determine the distance traveled by a vessel arriving at and leaving from the Shell Marine Oil Terminal (MOT) assuming a 12-hour round trip transit time.

It is Shell's understanding that the BAAQMD requires vessel emission offsets to be accounted for starting at the Bar Pilot station at 11 nautical miles (nm) from the Golden Gate Bridge in the Pacific Ocean. The methodology used by Shell to calculate vessel emissions for the CTRP Land Use Permit to determine the offsets required by CEQA relies on the calculation for vessel emissions in Shell's Title V permit and uses the number of hours traveled (6 hrs one way, 12 hrs roundtrip).

To determine the distance traveled during the 6 hour one way trip, an average vessel speed was assumed. The maximum speed limit in the SF Bay is 15 knots¹. The average speed in SF Bay for tankers has been documented by the California State Lands Commission as 10 knots². The typical tanker speed in the Pacific Ocean is 13-15 knots. As the vessel approaches the Bar Pilot Station located 11 nautical miles (nm) from the Golden Gate Bridge, the vessel slows down to approximately 8 knots to allow for the transfer of the Bar Pilot to the vessel. The vessel then typically speeds up as it approaches the Golden Gate Bridge³. Hence, it is reasonable to assume a 10 knot average speed in the Pacific Ocean.

The distance from the Shell MOT to the Golden Gate is approximately 30 nm and from the MOT to the Bar Pilot Station is 41 nm. Shell based its emission calculations on an average 10 knot speed for 6 hours one way transit time which provides a conservative distance traveled far beyond the transit time required to travel to the Bar Pilot station. This information is provided graphically in the attached diagram.

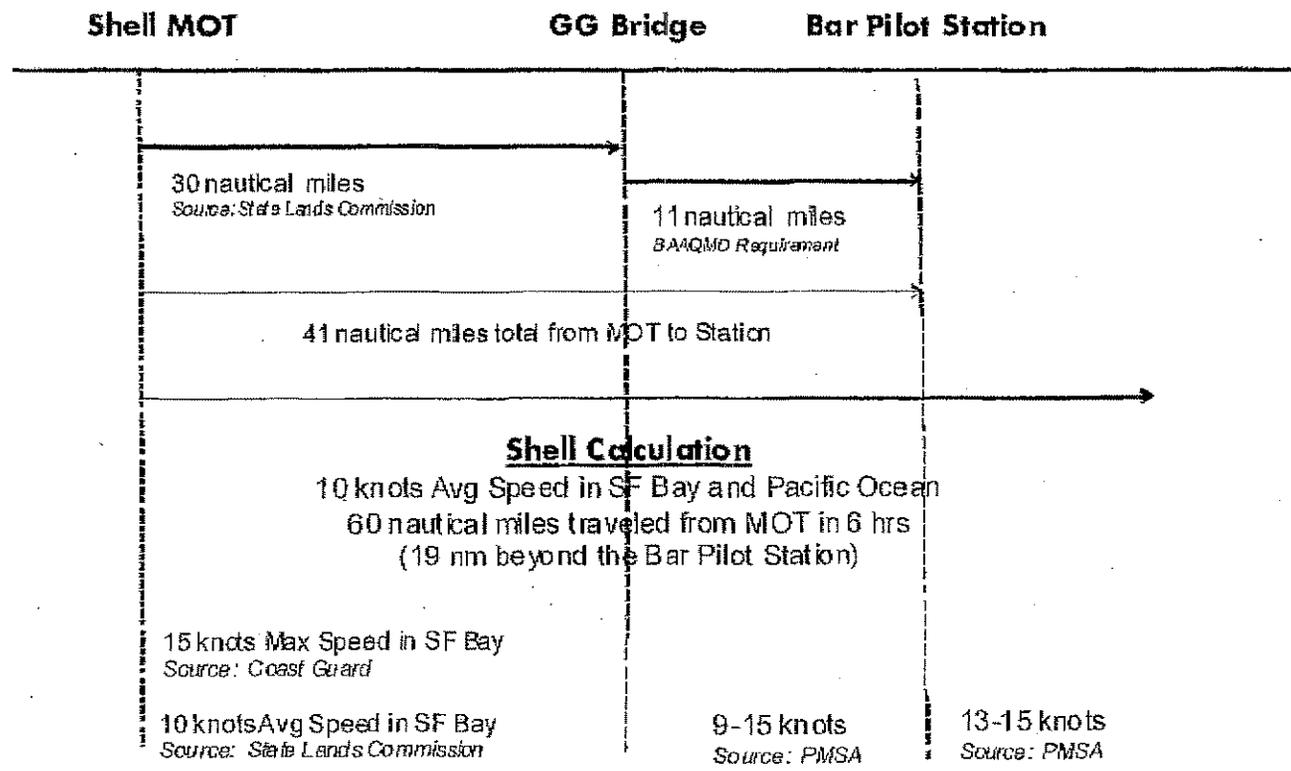
References:

¹ Federal regulation 33 CFR Parts 162 and 165 became effective May 3, 1995, limiting vessel speed to 15 knots for power driven vessels of 1,600 or more gross tons within the main ship channels (Regulated Navigation Areas) of San Francisco Bay.

² California State Lands Commission, May 2011. Final Environmental Impact Report for the Shell Marine Oil Terminal Lease Consideration.

³ Personal Communication with Pacific Marine Shipping Association, June 2011.

Shell Vessel Speed Diagram - 6 hours transit time one-way
Not to Scale



2.2.2 Letter B – Responses to Comments from Bay Area Air Quality Control District (BAAQMD)

- B-1 This comment does not address any concern or issue specifically related to the adequacy of the DEIR. This comment is noted.
- B-2 The comment that BAAQMD staff has reviewed and concurs with the approach taken in the DEIR is noted. As requested by the commenter, the Vessel Transit Distance Summary (Attachment A to Comment Letter B) has been included in the Final EIR as a technical appendix (see Final EIR Appendix D).
- B-3 The commenter recommends that the DEIR analysis compare the Project’s operational emissions to the BAAQMD’s PM2.5 annual average concentration risk and hazard threshold. As described on DEIR page 4.3-11, the BAAQMD identifies a “zone of influence” for its risk and hazards thresholds as a 1,000-foot radius from the property line of the source, and only the proposed Tank 967 retrofit would occur within 1,000 feet of a sensitive receptor. However, the retrofit would result in no operational long-term emissions of PM2.5 and the average daily onsite construction emissions that would be associated with the Tank 967 retrofit would be limited to one forklift that would operate on average less than four hours per work-day over a construction period of up to six months. This level of short-term construction activity does not appear to warrant a PM2.5 annual average concentration screening analysis.

For the purposes of assessing health and hazards-related impacts on nearby sensitive receptors, the DEIR analysis focuses on the probability of Project-related operational activities to result in a cancer risk of 10 in one million and/or if the operations of the Project would expose persons to toxic air contaminants (TACs) such that a non-cancer Hazard Index of 1.0 would be exceeded (see DEIR Impact 4.3-5 discussion on page 4.3-20). It should be noted that the DEIR TAC cancer and non-cancer effects analysis includes consideration of diesel particulate matter, which for the purposes of this analysis can be considered to be the same as PM2.5. Therefore, the County considers the DEIR air quality analysis to be adequate with regard to risk and hazards.

- B-4 The commenter recommends that Mitigation Measure 4.8-2 in the DEIR be included as a condition of approval in the Land Use permit. If the Project is approved mitigation measures included in the certified EIR would automatically be conditions of approval for the Land Use permit issued by the County when approved.

Comment Letter C

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

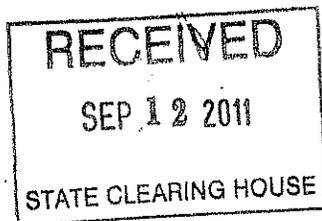
DEPARTMENT OF TRANSPORTATION

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September 12, 2011

CC680560
CC-680-24.05
SCH# 2010022034

Ms. Telma B. Moreira
Contra Costa County
Department of Conservation and Development
651 Pine Street, 4th Floor, North Wing
Martinez, CA 94553

Dear Ms. Moreira:

Shell Martinez Crude Tank Replacement Project – Draft Environmental Impact Report (DEIR)

Thank you for including the California Department of Transportation (Department) in the environmental review process for the Shell Martinez Crude Tank Replacement Project. The following comments are based on the DEIR. As the lead agency, Contra Costa County is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. Required roadway improvements should be completed prior to issuance of the Certificate of Occupancy. Since an encroachment permit is required for work in the State right of way (ROW), and the Department will not issue a permit until our concerns are adequately addressed, we strongly recommend that the County work with both the applicant and the Department to ensure that our concerns are resolved during the California Environmental Quality Act (CEQA) process, and in any case prior to submittal of a permit application. Further comments will be provided during the encroachment permit process.

C-1

Thank you for including the level of service (LOS) based on Highway Capacity Manual (HCM) in the environmental review process for the Shell Martinez Crude Tank Replacement Project.

Traffic Management Plan

If it is determined that traffic restrictions and/or detours are needed, a Transportation Management Plan or construction traffic impact study may be required for approval by the local agency having jurisdiction of the project site and affected vicinity prior to construction. Some local jurisdictions have their own standards, while others defer to those of Caltrans. In the case of

C-2

"Caltrans improves mobility across California"

Comment Letter C

Ms. Moreira/Contra Costa County
September 12, 2011
Page 2

the latter, you may benefit from information in our Traffic Manual. See the website link below for more information. <http://www.dot.ca.gov/hq/construc/constmanual/> Further information is available on the following website:
<http://www.dot.ca.gov/hq/traffops/signtech/signdel/trafficmanual.htm>

↑
C-2

Transportation Permit

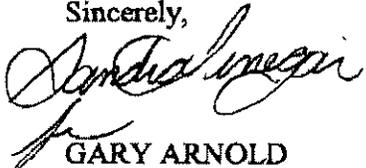
Project work that requires movement of oversized or excessive load vehicles on State roadways, such as Interstate 680 (I) 680 requires a transportation permit that is issued by the Department. To apply, a completed transportation permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to the address below.

↑
C-3

Office of Transportation Permits
California DOT Headquarters
P.O. Box 942874
Sacramento, CA 94274-0001

See the following website link for more information: <http://www.dot.ca.gov/hq/traffops/permits/>.

Sincerely,



GARY ARNOLD
District Branch Chief
Local Development – Intergovernmental Review

c: State Clearinghouse

2.2.3 Letter C – Responses to Comments from California Department of Transportation (Caltrans)

- C-1 The commenter’s remarks on the need for the County to work with both the Applicant and Caltrans is noted should it be determined that an encroachment permit would be required. At this time, the Project includes no work that would be conducted in the State ROW; therefore, there may be no need for a Caltrans encroachment permit for this Project.
- C-2 This comment does not address any concern or issue specifically related to the adequacy of the DEIR. This comment is noted.
- C-3 It is the County’s understanding that construction or operation of the Project would not likely require the movement of oversized or excessively loaded vehicles on State roadways. However, should such a need occur, the Applicant would obtain the necessary permits from the address noted by the commenter (see Mitigation Measure 4.17-2 as revised below).

On DEIR pages ES-15, 2-10, and 4.17-12, the last sentence of Mitigation Measure 4.17-2 has been changed as shown below:

Mitigation Measure 4.17-2: Prior to project construction, Shell shall document road conditions for all routes that will be used by project-related vehicles. Shell shall also document road conditions after project construction is completed. The pre- and post-construction conditions of the haul routes shall be reviewed, by Public Works Department staff. Shell shall enter into an agreement prior to construction that will detail the pre-construction conditions and the post-construction requirements of a rehabilitation program. Roads damaged by construction would be repaired to a structural condition equal to that which existed prior to construction activity. A cash bond/deposit to finance damage to County/City roadways shall be required. An encroachment/transportation permit may be required from the City, ~~County, and/or Caltrans~~ and a transportation/haul permit may be also required for any extra-legal loads used during construction.



City of Martinez

525 Henrietta Street, Martinez, CA 94553-2394

August 18, 2011

Contra Costa County
Dept of Conservation and Development
651 Pine Street N. Wing-4th floor
Martinez, CA 94553

RECEIVED
AUG 19 PM 1:34
CONTRA COSTA

Re: Draft EIR – Shell Crude Tank Replacement Project

To whom it may concern:

Marina Vista, in the vicinity of I-680, is within the City of Martinez City Limits. The Engineering Division for the City of Martinez will be responsible for issuing oversized load permits for transporting equipment and material to the site in excess of Caltrans allowable height and width requirements. These permits, if any, will require that oversized loads be delivered outside normal commute hours of 6am to 9 am and 4 pm to 6 pm Monday through Fridays.

D-1

Sincerely,

Tim Tucker, P.E.
City Engineer

2.2.4 Letter D – Responses to Comments from City of Martinez

- D-1 Refer to Response C-3. Similar to obtaining Caltrans permits, if City transportation permits are required, the Applicant would obtain them from the City. The City's remarks on delivery times are noted.

WILLIAM B. WALKER, M.D.
HEALTH SERVICES DIRECTOR

RANDALL L. SAWYER
CHIEF ENVIRONMENTAL HEALTH & HAZMAT OFFICER

MARILYN C. UNDERWOOD, PH.D. REHS
DIRECTOR OF ENVIRONMENTAL HEALTH



CONTRA COSTA
ENVIRONMENTAL HEALTH

2120 Diamond Blvd., Suite 200
Concord, California 94520
Ph (925) 692-2500
Fax (925) 692-2502
www.cocoeh.org

September 14, 2011

Telma Moreira
Department of Conservation and Development
Community Development Division
651 Pine St., 4th Floor, North Wing
Martinez, CA 94553

RE: Shell Crude Tank Replacement Project – Draft EIR
State Clearinghouse No. 2010022034, Martinez, CA

Dear Ms. Moreira:

The Contra Costa Environmental Health Division (CCEHD) has received a request for agency comments for the above referenced project. The following are our comments:

- 1. A permit from CCEHD is required for any well or soil boring prior to commencing drilling activities, including those associated with environmental investigation and cleanup, and geotechnical investigation. E-1
- 2. Any abandoned wells (water, environmental, or geotechnical) and septic tanks must be destroyed under permit from CCEHD. If the existence of such wells or septic tanks are known in advance or discovered during construction or other activities, these should be clearly marked, kept secure, and destroyed pursuant to CCEHD requirements. E-2

These comments do not limit an applicant's obligation to comply with all applicable laws and regulations. If you should have any questions, please do not hesitate to call me at (925) 692-2535.

Sincerely

Joseph G. Doser
Supervising Environmental Health Specialist

cc: Les Miyashiro, Environmental Health Specialist II

JGD:lj

CONTRA COSTA
ENVIRONMENTAL HEALTH



2.2.5 Letter E – Responses to Comments from Contra Costa Health Services

- E-1 The commenter notes that should wells or soil boring activities be required, a permit from the Contra Costa Environmental Health Department (CCEHD) is required. The Applicant would obtain the necessary permits prior to commencing drilling activities.
- E-2 While no known abandoned wells or septic tanks have been identified in the site area, should such wells or septic tanks be encountered, the Applicant would obtain the necessary permits from the CCEHD.



**CONTRA COSTA
WATER DISTRICT.**

1331 Concord Avenue
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Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122
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Directors
Joseph L. Campbell
President

Karl L. Wandry
Vice President

Bette Boatman
Lisa M. Borba
John A. Burgh

Jerry Brown
General Manager

September 8, 2011

Ms. Telma Moreira
Community Development Dept.
Contra Costa County
County Administration Building
651 Pine Street
4th Floor, North Wing
Martinez, CA 94553-0095

Subject: Shell Crude Tank Replacement Project Draft EIR (LP10-2006)

Dear Ms. Moreira:

The Contra Costa Water District (CCWD) is in receipt of the Draft EIR describing the planned upgrade of the Shell Oil refinery in Martinez consisting of: replacement of two existing crude storage tanks; increased volume of crude oil shipments at the marine terminal (approximately one additional ship per week); and implementation of emission reduction projects.

CCWD manages and maintains untreated water facilities that are owned and operated by the United States Bureau of Reclamation (Reclamation). This includes the Contra Costa Canal, the Shortcut Pipeline (SCPL), and Martinez Reservoir. CCWD owns and operates a nearby untreated water lateral, Lateral 46.7, which runs adjacent to the Interstate Freeway 680. CCWD operates treated water lines in Pacheco Boulevard. CCWD also owns and maintains water pipelines, some of which are operated by Contra Costa Sanitary District (CCCS) under agreement. The City of Martinez owns and operates treated water distribution pipelines in this area of Martinez. The proposed Shell Oil project is close to the Shortcut Pipeline (approximately 600 feet to the east). The attached map indicates the SCPL as "MP."

CCWD recommends that conditions for approving the Land Use Permit include the following:

F-1

F-2

Telma Moreira
Contra Costa County
Conservation & Development Dept.
Shell Crude Tank Replacement Project
September 8, 2011

- A drawing should be submitted to CCWD delineating the SCPL facility and demonstrating that there will be no adverse impact to this facility.
- All drainage from the project should not drain to the SCPL.
- No structures/buildings shall be built over the Reclamation SCPL 40-foot easement area.



F-2

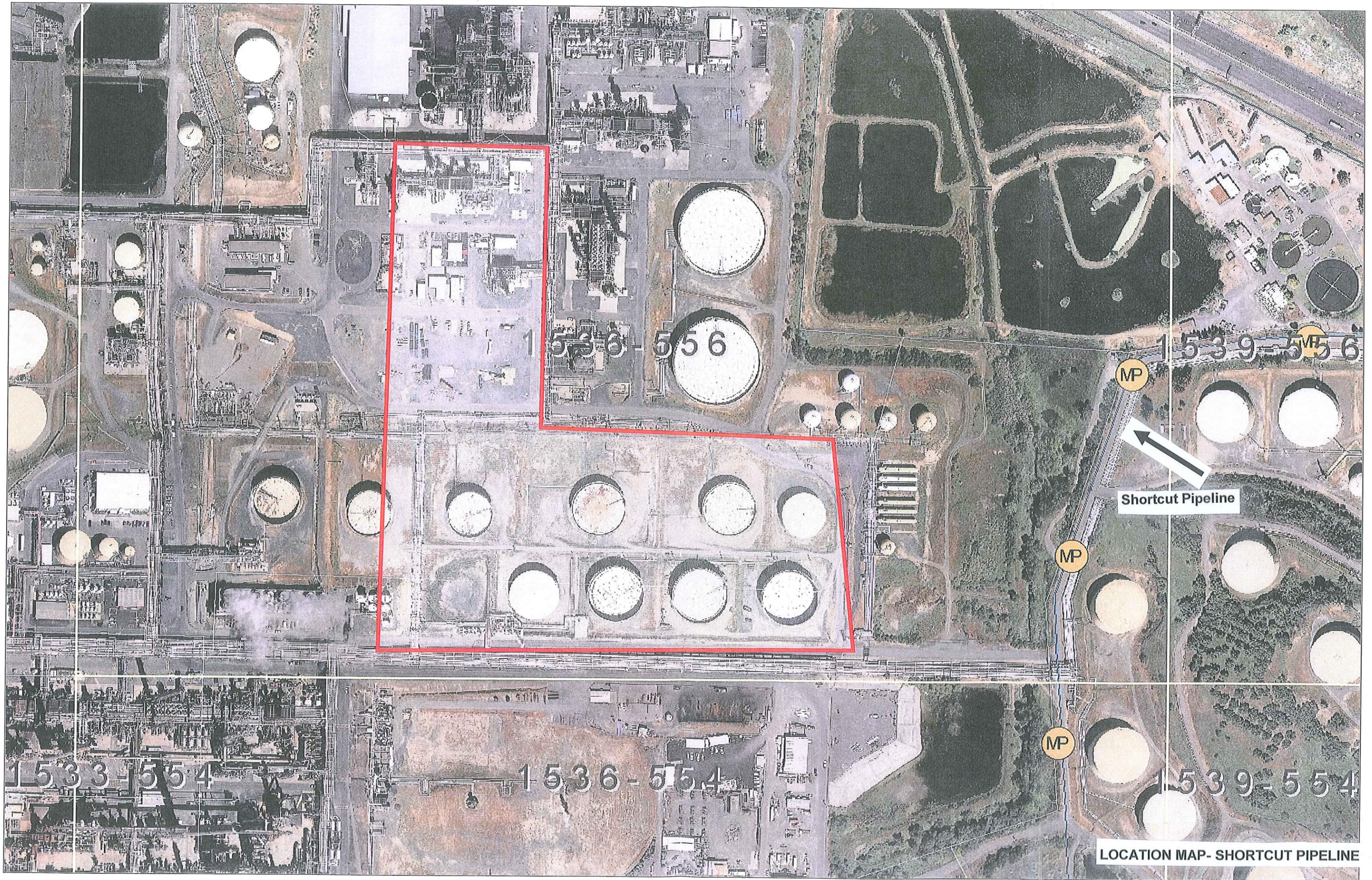
Please feel free to contact me at (925) 688-8119 should you have further questions.

Sincerely,

Mark A. Seedall
Principal Planner

MAS/jmt

Attachments: Map of SCPL



Shortcut Pipeline

LOCATION MAP- SHORTCUT PIPELINE

2.2.6 Letter F – Responses to Comments from Contra Costa Water District (CCWD)

- F-1 The comment and included map noting the pipeline is noted.
- F-2 This comment recommends that several items be included in the conditions for approval of the Land Use permit for the Project. This comment does not address any concern or issue specifically related to the adequacy of the DEIR. This comment is noted.

From: [Telma Moreira](#)
To: [Marshall.Robert](#)
Subject: Re: Draft EIR for Shell Martinez
Date: Thursday, September 08, 2011 8:59:04 AM

Thank you, Mr. Marshal.

We will be able to add in the Final EIR that permits will be required by the Fire District and it may be required by the State Fire Marshal Office.

Let me know if you have additional questions/concerns.

Telma Moreira, Principal Planner
Department of Conservation and Development
Community Development Division
651 Pine Street, 2nd Floor, North Wing
Martinez, CA 94553
telma.moreira@dcd.cccounty.us
Phone: (925) 335-1217
Fax: (925) 335-1222

▼ Marshall.Robert <rmars@cccfpd.org>

Marshall.Robert
<rmars@cccfpd.org>
09/08/2011 07:28 AM

To: "telma.moreira@dcd.cccounty.us"
<telma.moreira@dcd.cccounty.us>
cc
Subject: Draft EIR for Shell Martinez

Re: State Clearinghouse Number 2010022034, County File Number LP10-2006

Ms. Moreira,

I have reviewed the draft EIR for the Shell Crude Tank Replacement project.

The only issue I see, which may or may not be significant, is under section 1.6 on page 1-3. The permits and approvals section does not mention that permits will be required by the fire district, and perhaps by the State Fire Marshal's office. Permits thorough the Fire District are required, and permits through the State Fire Marshal's office might be required under certain circumstances, depending on the ultimate direction Shell decides to go.

G-1

Other than this, I see no issues with Fire Regulations related to fire safety, or hazmat safety.

Thanks,

Robert Marshall

Fire Inspector

Contra Costa County

Fire Protection District

(925)941-3542

2.2.7 Letter G – Responses to Comments from Contra Costa Fire District

G-1 The following text changes are made to the DEIR in response to the commenter's remarks:

The last paragraph on page 1-3 of the DEIR is changed as shown:

1.6 Permits and Approvals

Several permits and approvals are required before Project construction could begin. These include, but are not limited to, a LUP, a permit from the Contra Costa County Fire Protection District and/or the State Fire Marshal, Grading Permit and Building Permit from Contra Costa County and an Authority to Construct permit from the BAAQMD. More detail on permits is provided in Section 3.8.

Table 3-11 on page 3-33 of the DEIR is changed as shown:

**TABLE 3-11
AGENCY PERMITS OR APPROVALS**

Agency Permit or Approval	Requirement	Applicability to Project
Contra Costa County	Land Use, Ministerial (building, electrical, etc) Permits	Required for new facilities that manage certain hazardous substances and for construction of projects above certain thresholds of scale
<u>Contra Costa County Fire Protection District and/or the State Fire Marshal</u>	<u>Permit</u>	<u>Possibly required for construction and / or operation.</u>
Bay Area Air Quality Management District	Authority to Construct / Permit to Operate, Title V Permit Amendment	Required in order to construct or modify and to operate certain stationary emission sources
San Francisco Regional Water Quality Control Board	Project Construction NPDES Storm Water Pollution Prevention Plan	Required to control surface runoff during construction

CHAPTER 3

EIR Text Revisions

3.1 Introduction

The following changes have been made to the previously published text of the DEIR. These changes include: minor corrections made by the section authors to improve writing clarity, grammar, and consistency; clarifications, additions, or deletions resulting from specific responses to comments; and County staff-initiated text changes to update information in the DEIR. These text revisions are organized by the chapter and page number that appear in the DEIR. An explanation of the change, including identification of where it would be made, is presented in *italics*. The specific additions and deletions use the following conventions:

- Text deleted from the EIR is shown in ~~strikethrough text~~.
- Text added to the EIR is shown in underline text.

3.2 Text Revisions

The last sentence of Mitigation Measure 4.17-2 on DEIR pages ES-15, 2-10, and 4.17-12 has been changed as shown below:

Mitigation Measure 4.17-2: Prior to project construction, Shell shall document road conditions for all routes that will be used by project-related vehicles. Shell shall also document road conditions after project construction is completed. The pre- and post-construction conditions of the haul routes shall be reviewed, by Public Works Department staff. Shell shall enter into an agreement prior to construction that will detail the pre-construction conditions and the post-construction requirements of a rehabilitation program. Roads damaged by construction would be repaired to a structural condition equal to that which existed prior to construction activity. A cash bond/deposit to finance damage to County/City roadways shall be required. An encroachment/transportation permit may be required from the City/~~County~~, and/or Caltrans ~~and a transportation/haul permit may be also required~~ for any extra-legal loads used during construction.

The last paragraph on page 1-3 of the DEIR is changed as shown:

1.6 Permits and Approvals

Several permits and approvals are required before Project construction could begin. These include, but are not limited to, a LUP, a permit from the Contra Costa County Fire

Protection District and/or the State Fire Marshal, Grading Permit and Building Permit from Contra Costa County and an Authority to Construct permit from the BAAQMD. More detail on permits is provided in Section 3.8.

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Bay Area Air Quality Management District	Authority to Construct / Permit to Operate, Title V Permit Amendment	Required in order to construct or modify and to operate certain stationary emission sources
San Francisco Regional Water Quality Control Board	Project Construction NPDES Storm Water Pollution Prevention Plan	Required to control surface runoff during construction

The following is added as a new EIR Appendix E, *Vessel Transit Distance Summary*.

Attachment A

Vessel Transit Distance Summary

Shell REFEMS and Title V permits provide total emissions limits for a number of refinery units including the wharf. The CTRP does not involve any modifications to the Shell Marine Oil Terminal (MOT). While emissions increases from the additional vessel calls will occur, the increases in emissions will be within the REFEMS/Major Facility Review (Title V) permit BAAQMD limits and the CTRP does not involve any change in those limits. However, the CTRP is required to offset the vessel emission increase under the California Environmental Quality Act because a different "actual" emissions baseline is used. Per BAAQMD request, this narrative is provided to summarize the methodology used by Shell to determine the amount of vessel emissions offsets needed for CEQA and the methodology used to determine the distance traveled by a vessel arriving at and leaving from the Shell Marine Oil Terminal (MOT) assuming a 12-hour round trip transit time.

It is Shell's understanding that the BAAQMD requires vessel emission offsets to be accounted for starting at the Bar Pilot station at 11 nautical miles (nm) from the Golden Gate Bridge in the Pacific Ocean. The methodology used by Shell to calculate vessel emissions for the CTRP Land Use Permit to determine the offsets required by CEQA relies on the calculation for vessel emissions in Shell's Title V permit and uses the number of hours traveled (6 hrs one way, 12 hrs roundtrip).

To determine the distance traveled during the 6 hour one way trip, an average vessel speed was assumed. The maximum speed limit in the SF Bay is 15 knots¹. The average speed in SF Bay for tankers has been documented by the California State Lands Commission as 10 knots². The typical tanker speed in the Pacific Ocean is 13-15 knots. As the vessel approaches the Bar Pilot Station located 11 nautical miles (nm) from the Golden Gate Bridge, the vessel slows down to approximately 8 knots to allow for the transfer of the Bar Pilot to the vessel. The vessel then typically speeds up as it approaches the Golden Gate Bridge³. Hence, it is reasonable to assume a 10 knot average speed in the Pacific Ocean.

The distance from the Shell MOT to the Golden Gate is approximately 30 nm and from the MOT to the Bar Pilot Station is 41 nm. Shell based its emission calculations on an average 10 knot speed for 6 hours one way transit time which provides a conservative distance traveled far beyond the transit time required to travel to the Bar Pilot station. This information is provided graphically in the attached diagram.

References:

¹ Federal regulation 33 CFR Parts 162 and 165 became effective May 3, 1995, limiting vessel speed to 15 knots for power driven vessels of 1,600 or more gross tons within the main ship channels (Regulated Navigation Areas) of San Francisco Bay.

² California State Lands Commission, May 2011. Final Environmental Impact Report for the Shell Marine Oil Terminal Lease Consideration.

³ Personal Communication with Pacific Marine Shipping Association, June 2011.

Shell Vessel Speed Diagram - 6 hours transit time one-way
Not to Scale

