Final Environmental Impact Report

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

APP#s: 131007-133, 140806-095, 161013-153, 180321-043
SCH#2015061102

July 2018

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Contents

Figures

Tables

Chapter 1
Introduction

1.1 Final EIR Organization

This chapter presents background and introductory information for the proposed Project, Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project, located on Mormon Island within the Port of Los Angeles (Port). Chapter 2, "Responses to Comments," presents information regarding the distribution of, and comments on, the Draft EIR, and the responses to these comments. Chapter 3, "Modifications to the Draft EIR," presents the modifications to the Draft EIR.

This Final EIR has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] 15000 et seq.). The Los Angeles Harbor Department (LAHD) is the CEQA lead agency.

1.2 Existing Conditions

1.2.1 Regional Context

The Port is located in San Pedro Bay and encompasses approximately 7,500 acres of land and water along 43 miles of waterfront, approximately 20 miles south of downtown Los Angeles (Figure 1-1). It features 24 passenger and cargo terminals, including automobile, breakbulk, container, dry and liquid bulk, and warehouse facilities that handle billions of dollars' worth of cargo each year. In addition to cargo terminals, the Port includes the World Cruise Center (a passenger terminal), Ports O' Call Village, Wilmington Waterfront Park, fanfare fountains and water features, Angels Gate Lighthouse, 22nd Street Park, and Fish Harbor.

The Port is a key asset that is vital to regional and national security (in the case of the proposed Project – fuel security) and the economy. It is a primary point of entry for goods and fuel coming into the Southern California region, and an important point of entry for the State of California and western portion of the nation. The Port's role in receiving fuel is particularly crucial because Southern California operates as an energy island.

Basemap Source: U.S. Census Bureau, Geography Division, 2010

Figure 1-1
Regional Location Map

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

1.2.2 Project Setting

According to the California Energy Commission (CEC), conventional petroleum fuels will be the main source of transportation energy for the foreseeable future. There are six major refineries in the region (Chevron-El Segundo, PBF Energy-Torrance, Phillips 66-Wilmington, Tesoro-Carson, Tesoro-Wilmington, and Valero-Wilmington). The Port's seven marine oil terminals include: Kinder Morgan (Berths 118-119), Phillip 66 (Berths 148-151), NuStar Energy/Shore Terminal (Berth 163), Valero/Ultramar (Berth 164), Shell (Berths 167-169), Vopak (Berths 187-191) and PBF Energy (Berths 238-239).

1.2.3 Project Site and Surrounding Uses

The Project site is located within the Port of Los Angeles Community Plan area in the City of Los Angeles, which is adjacent to the City of Los Angeles communities of San Pedro and Wilmington. The Project site occupies the southwestern end of a peninsula on Mormon Island along the east side of Slip 1 and is generally bounded by Rio Tinto Minerals to the north (Berths 165-166), Slip 1 to the west, the Turning Basin to the south, and Berths 170 – 173 to the east (East Basin Channel) (Figure 1-2). Land access to and from the Project site is provided by a network of freeways and arterial routes. The freeway network consists of the Harbor Freeway (Interstate [I]-110), the Long Beach Freeway (I-710), the San Diego Freeway (I-405), and the Terminal Island Freeway (State Route [SR]-103/SR-47).

The Project site is located at Berths 167-169 in Planning Area 2, as designated in the Port Master Plan (Port of Los Angeles, 2013a). According to the Port Master Plan, Planning Area 2 designates the Project site for liquid bulk uses.

The Project site is identified as Los Angeles County Assessor's Parcel Number (APN) 7440019908 and is zoned for heavy industrial uses ([Q] M3-1) by the City of Los Angeles Zoning Ordinance. [Q] M3-1 is designated as "quasi-heavy industrial" uses.

The overall character of the surrounding area is primarily bulk material handling (liquid and dry bulk) (Figure 1-2). The properties to the north and east of the Project site are also zoned as [Q] M3-1. In addition, the Project site is also situated north of the Yusen Terminals, Inc. (YTI) Container Terminal (across the East Basin Channel) located along Berths 212-224.

1.2.4 Project Overview

1.2.4.1 MOTEMS Overview

The primary goal of the proposed Project is to comply with the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) regarding mooring and berthing design criteria to protect public health, safety and the environment. The MOTEMS are comprehensive engineering standards for the analysis, design and inspection/maintenance of existing and new marine oil terminals. The MOTEMS were approved by the California Building Standards Commission on January 19, 2005 and are codified as part of California Code of Regulations Title 24, Part 2, Marine Oil Terminals, Chapter 31F.

Basemap Source: U.S. Census Bureau, Geography Division, 2010

Figure 1-2
Project Vicinity Map

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

These standards apply to all existing marine oil terminals in California and include criteria for inspection, structural analysis and design, mooring and berthing, geotechnical considerations, fire, piping, and mechanical and electrical systems. MOTEMS became effective on January 6, 2006. The MOTEMS are reviewed and updated every three years and this proposed Project is required to comply with the most recent version. The California State Lands Commission (CSLC) oversees the MOTEMS program. Through ongoing discussions with the CSLC, the LAHD developed an implementation strategy to complete the necessary MOTEMS requirements at the marine oil terminals within the Port.

The MOTEMS implementation strategy addresses wharf upgrades and other requirements under MOTEMS, land use inconsistencies where present, and provides opportunities to increase utilization of Harbor lands and wharf assets.

The MOTEMS require each marine oil terminal to conduct an audit to determine the level of compliance and an evaluation of the continuing fitness-for-purpose of the facility. Depending on the results, terminal operators must then determine what actions are required to meet the standards and provide a schedule for implementation of deficiency corrections and/or rehabilitation. The standards define criteria in the following areas:

- Audit and Inspection
- Structural Loading
- Seismic Analysis and Performance Based Structural Design
- Mooring and Berthing Analysis and Design
- Geotechnical Hazards and Foundations
- Structural Analysis and Design of Components
- Fire Prevention, Detection and Suppression
- Piping and Pipelines
- Electrical and Mechanical Equipment

The initial audit performed for the Shell Oil Company's marine oil terminal at Berths 167-169 in 2010 identified a number of items that require upgrading. The structural, mooring, berthing, and piping evaluations all demonstrated the need for upgrades to their representative systems. The geotechnical evaluations indicated that improvement measures are needed to meet seismic requirements.

The proposed Project would construct a new MOTEMS compliant wharf and mooring system for the existing Shell Marine Oil Terminal at Berths 167-169. Other MOTEMS-related Project elements include pipeline and pipeline support (shore side) improvements along the terminal, and topside equipment replacement.

1.2.4.2 Existing Operations Overview

The existing marine terminal occupies a land area of approximately nine acres, an over water area of approximately three acres, and has two operating berths (Berths 168 and 169), 11 hydrocarbon storage tanks of various sizes, parking, and several ancillary buildings. Employees at the Project site consist of six full-time and one part-time employees. The existing 1,240-foot timber wharf can accommodate two tankers. The Project site has been leased by Shell and operated as a marine oil terminal since 1923.

Both Berth 168 and Berth 169 have a design depth of approximately 40 feet allowing for vessels with a capacity of up to 86,000 deadweight tons (dwt). While the berths allow for ships with maximum cargo sizes of about 425,000 barrels, more typical cargo sizes range from 150,000 to 325,000 barrels. The marine terminal currently only handles refined petroleum liquids (e.g., gasoline, diesel, ethanol, and jet). Maximum vessel flow rates allow up to 10,000 barrels per hour (bph) per system product line. During the five-year period from 2011 through 2015, an average of 86 vessel calls occurred annually at the existing marine terminal.

The marine terminal's 11 hydrocarbon storage tanks range in capacity from approximately 5,000 barrels to approximately 100,000 barrels and have a total combined storage capacity of approximately 490,000 barrels. Liquid bulk cargo that is unloaded from vessels at the marine terminal is pumped to the nearby Shell Carson Distribution Facility (approximately six miles away in the city of Carson) via a network of existing underground pipelines. The Shell Carson Distribution Facility is used for tank product storage and distribution. Product from the Shell Carson Distribution Facility can also be pumped to the marine terminal for loading onto vessels. Although the Shell Carson Distribution Facility and associated underground pipelines are connected to the Shell Marine Oil Terminal, they are not located within the Project site and are not part of the proposed Project.

Table 1-1 shows volumes of commodities handled by the facility from 2011 to 2015.

Table 1-1: Throughput Volume and Vessel Calls by Year

Year	Throughput (barrels)*	Annual Vessel Calls
2011	12,244,870	90
2012	11,539,497	77
2013	11,716,522	78
2014	10,170,144	65
2015	20,584,414	121
2011-2015 Average	13,251,089	86

*Throughput volumes are for all commodities (which include gasoline, diesel, ethanol and jet refined petroleum products)
Source: Shell Inc., 2016

1.3 Project Purpose

The proposed Project is needed to comply with Chapter 31F –Marine Oil Terminals of the 2016 California Building Code, Title 24, Part 2, also referred to as MOTEMS. This facility helps maintain the Port's ability to accommodate fuel imports for the Southern California market over the long-term. Key project elements that would meet MOTEMS requirements include the construction of two new loading platforms to replace the existing timber wharf, new mooring dolphins, and shore side improvements on portions of the terminal. The tenant, Shell, has also applied to the Port for a new, long-term (30-year) lease to allow continued operations of its existing marine oil terminal.

1.3.1 Project Objectives

The proposed Project would address the project objectives, as summarized below.

- Comply with MOTEMS requirements, which would ensure better resistance to earthquakes, protect the public and the environment, and reduce the potential of an oil spill, and consequently maintain the operation and viability of the marine oil facility (primary objective).
- Optimize the use of existing land at the terminal and associated waterways in a manner that is consistent with the LAHD's public trust obligations.
- Continue operations which contribute to Southern California's energy needs given evolving market conditions and business cycle variability.
- Maintain the existing facility's throughput capabilities and operational parameters.
- Comply with the LAHD's Source Control Program (SCP).

Together, these five objectives define the need for the proposed Project.

1.4 Proposed Project

The proposed Project consists of various wharf and shoreside improvements to the Shell Marine Oil Terminal at Berths 167-169 on Mormon Island that are required in order to comply with MOTEMS, as well as other elements not required by MOTEMS. The proposed Project would not increase the capacity of the terminal. In general, the proposed Project would demolish the existing timber wharf (with two berths) and replace it with two new reinforced concrete loading platforms, access trestles (to the platforms), mooring dolphins and catwalks, and provide piping and related foundation supports along the landside portions of the terminal at both operating berths. Additionally, the proposed Project includes the issuance of a new 30-year lease along with implementation of a SCP Plan. Figure 1-3 shows the Project site and general wharf improvements.

Figure 1-4 shows a plan view of the proposed wharf profile of the new loading platform, and Figure 1-5 shows the topside improvements in relationship to the new loading platform and the terminal at Berth 168.

The proposed Project consists of the following components to meet MOTEMS requirements:

- Replacement piping and related foundation supports to meet seismic requirements at each operating berth.
- Demolition of the existing timber deck, access trestles, and approximately 900 creosote-treated timber piles of existing timber wharfs at Berths 167-169. Existing piles that cannot be extracted would be cut at the mudline.
- Construction of new loading platforms at Berths 168 and 169 (in phases), installation of new mooring dolphins, new fenders, approach trestles, catwalks, and installation of topside equipment required for loading and unloading operations at and adjacent to the new loading platforms.

Legend

ATB	Articulated tug and barge
BD	Berthing dolphin
CW	Catwalk
DWT	Deadweight ton
EX	Existing
FDC	Fire Department Connection
LOA	Length overall
LP168	Loading platform at Berth 168 (124'-0" x 30'-0")
LP169	Loading platform at Berth 169 (124'-0" x 30'-0")
MD	Mooring dolphin
	New catwalk
MD2 (EX)	Exist mooring point
MD1	New mooring point
	Berth 168 Loading Platform
	Berth 169 Loading Platform

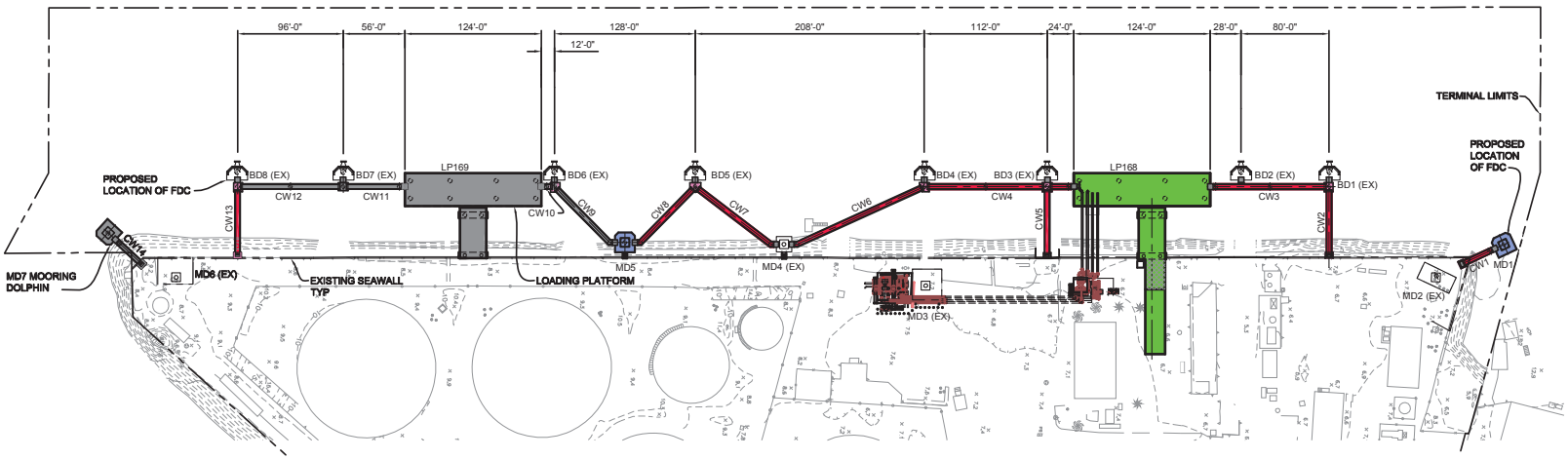

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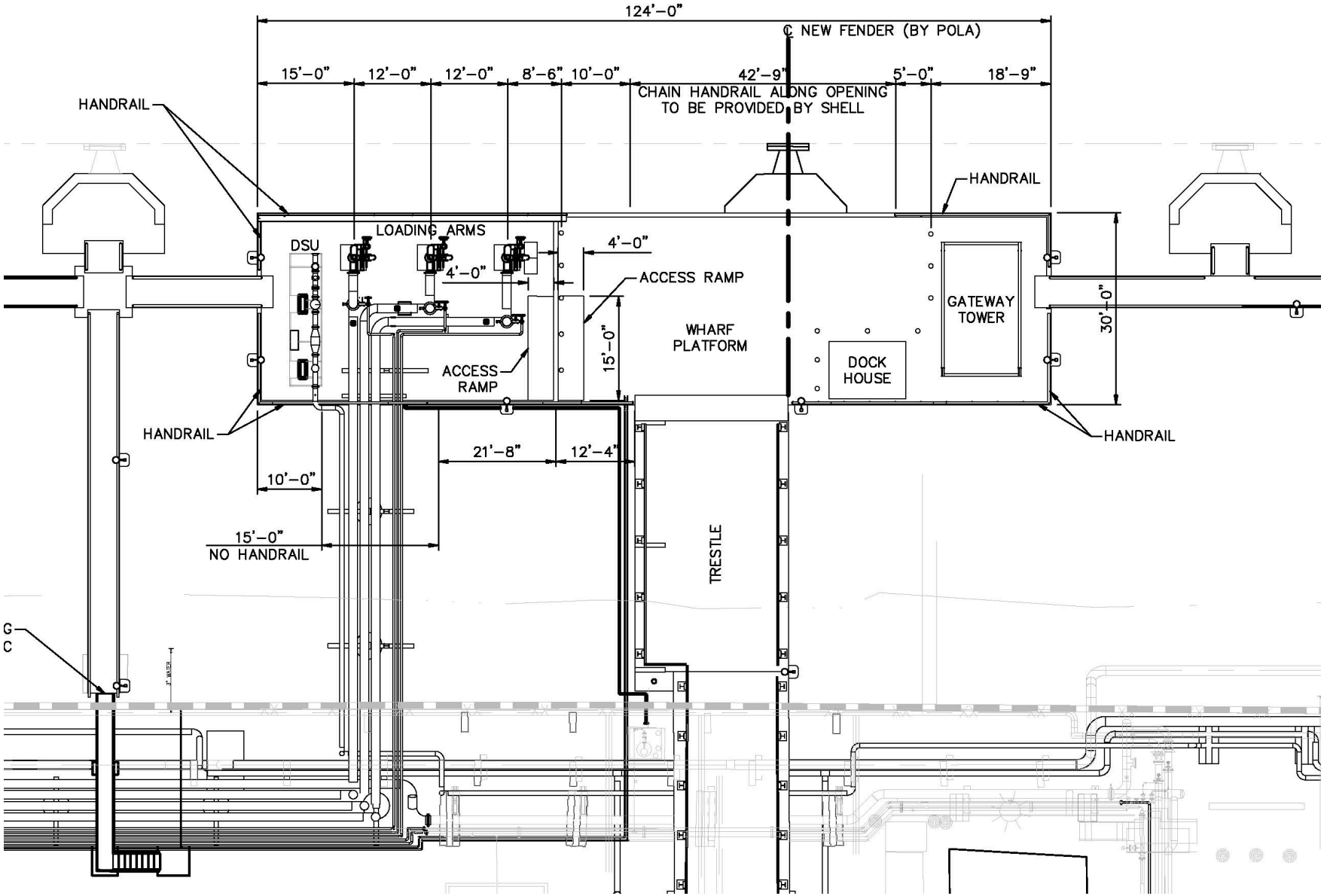
Figure 1-3
Proposed Project



Note: The layout for the proposed Berth 169 platform is pending; however, it would be configured similar to what is presented in this figure.

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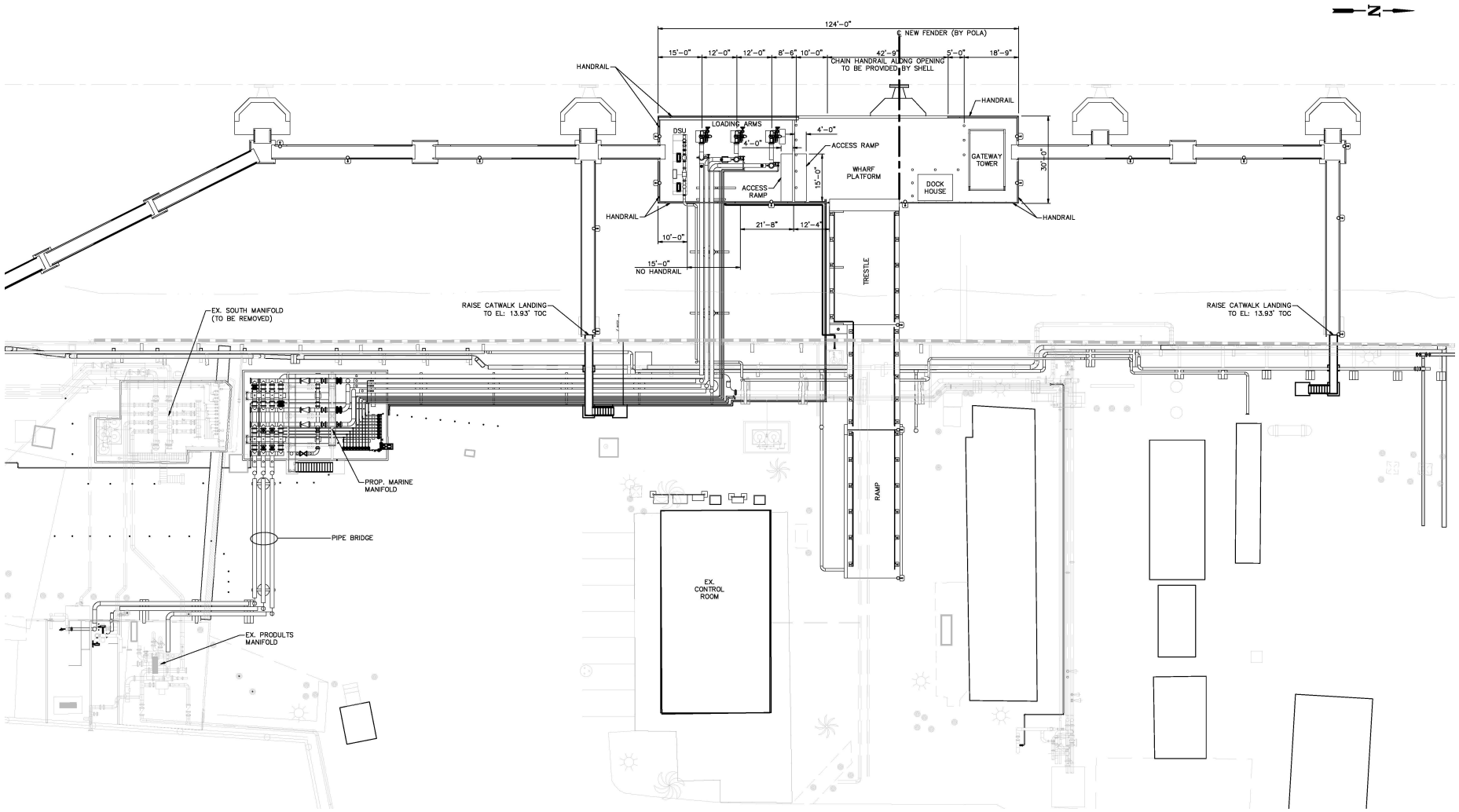
Source: AECOM, 2018

Figure 1-4
General View of New Loading Platform and Equipment



Source: AECOM, 2018

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Figure 1-5
Topside Improvements at Berth 168

Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project

In addition, the proposed Project would include the following elements that are not related to MOTEMS compliance:

- Modifications at the Mormon Island marine oil terminal to allow for the loading of refined products onto vessels, while meeting USCG safety regulations and SCAQMD air quality regulations.
- An SCP Plan would be provided by Shell as part of the new 30-year lease. The SCP Plan would include commitments for certain improvements. This work may include adding double bottoms or installing leak detection systems to existing storage tanks and pipelines to meet the LAHD's requirements. These improvements would further minimize the potential for accidental release of petroleum products.
- New 30-year lease would allow operations to continue from 2018 through 2048 (the existing lease terminates in 2023).

The MOTEMS and non-MOTEMS elements of the proposed Project are described below.

1.4.1 Project Elements for MOTEMS Compliance

1.4.1.1 Shore Side Improvements: Piping Replacement and Related Support Structures

The existing piping from Berth 168 and 169 would be replaced with new piping and related support structures. Potential upgrades include but are not limited to: piping and piping supports between the marine loading arms and the landside manifold to convey the various petroleum products to or from vessels.

1.4.1.2 Wharf Demolition and Replacement

Under the proposed Project, the existing timber wharf and access trestles would be demolished and replaced with new loading platforms to meet MOTEMS requirements. Demolition would include removal and disposal of the timber deck (cap beam, joists, decking, etc.) and approximately 900 creosote-treated timber support piles, which would be extracted or cut at the mudline (see Figure 1-6).

Existing topside equipment along Berth 168 would be decommissioned, followed by the demolition of the northern half of the terminal's existing wharf (Berth 168). The southern half of the existing wharf (Berth 169) would be demolished after the Berth 168 improvements become operational.

Once the northern portion of the existing wharf is removed, a new loading platform would be constructed at Berth 168 (Figure 1-3). The loading platform would be comprised of a concrete deck supported steel pipe piles. An access trestle would be constructed to provide pedestrian and vehicular access to the loading platform.

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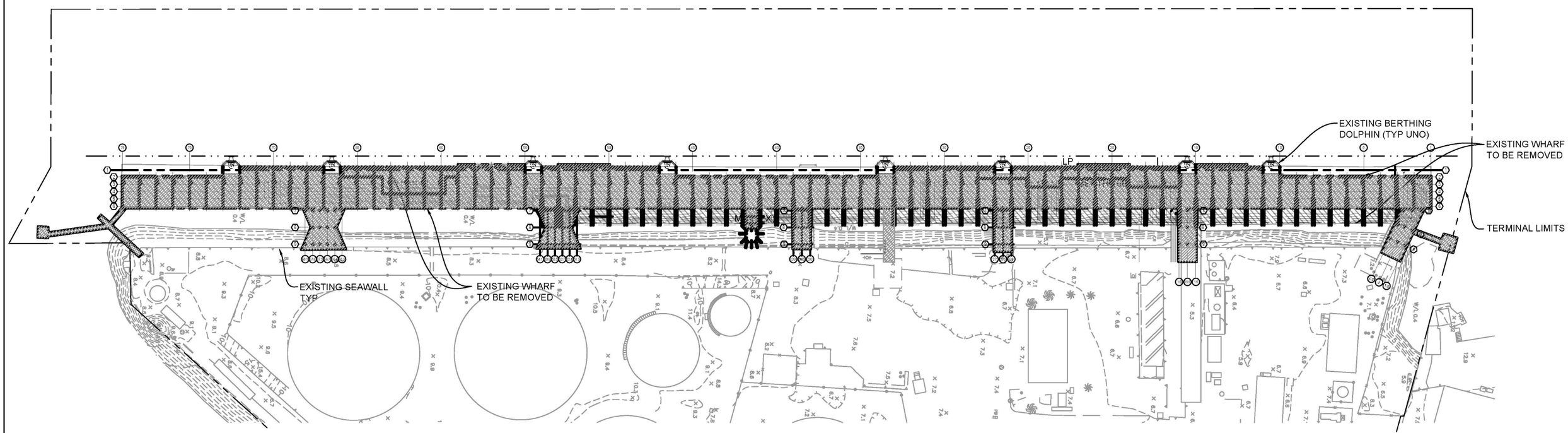

Source: AECOM, 2017

Figure 1-6
Details of the Wharf Demolition

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Upon completion of the platform and topside equipment at Berth 168 and its commissioning, the southern half of the existing wharf (Berth 169) would be demolished. Piles and catwalks would be installed to maintain access to the existing berthing dolphins. The second new loading platform, access trestle, catwalks, and topside equipment at Berth 169 would be similar to the loading platform at Berth 168. The improvements along Berth 169 would be constructed at a future yet-to-be-determined date based on throughput demands (assumed to occur beginning in 2021, after completion of the first platform).

1.4.1.3 Mooring Dolphins

As shown on Figure 1-3, two new mooring dolphins (MD1 and MD5) would be constructed at the north end of Berth 168 (MD1) and at the north end of Berth 169 (MD5), following demolition of the existing wharf. The new mooring dolphins would provide a foundation for triple quick release mooring hooks. The existing mooring dolphin (MD4) located just south of the new loading platform at Berth 168 would be modified to provide access from the shore.

1.4.1.4 Steel Catwalks

Steel catwalks would be constructed to provide pedestrian access from the new loading platforms and the shore to the eight existing berthing dolphins and the two new mooring dolphins. Installation of the new catwalks would occur in stages.

1.4.1.5 New Topside Equipment

The existing topside equipment at Berth 168 and 169 would be replaced with new equipment on and adjacent to the new loading platforms (see Figure 1-5). Upgrades include, but are not limited to:

- A gangway tower;
- Three marine loading arms;
- A skid-mounted vapor control system;
- A foam and water fire protection system (fire monitors for topside equipment protection located on-shore)
- A potable water line;
- Dry utility lines (electrical lines, communication lines, and compressed air lines); and
- A small dock house.

1.4.1.6 Dredging

During wharf demolition and pile installation, there is a potential for sediment along the existing slope to slough off and settle along the harbor bottom. If necessary, up to 4,000 cubic yards of such sediment would be dredged from the berths (approximately 2,000 cubic yards from each operating berth area) after construction of the two loading platforms and associated structures to return the berths to their original designed water

depths. Dredged spoils would be transported by barge to the existing and authorized confined disposal facility (CDF) at Berths 243-245.

1.4.2 Other Project Elements

1.4.2.1 Vapor Control System

The terminal would be modified to allow for the loading of refined products onto vessels at one berth. Equipment proposed is required to meet United States Coast Guard safety requirements as well as SCAQMD regulations.

The proposed Project components include piping modifications, two new 1,000-gallon above ground propane tanks (one for enriching product and one to supply pilot burners), a Dockside Safety Unit, and a Vapor Destruction Unit (VDU). (See Figure 1-5).

1.4.2.2 New Lease

The proposed Project would include a new 30-year lease that is expected to begin in 2018 and extend to 2048.The new lease would allow Shell to continue operations of its existing marine oil terminal and to maximize the Port's ability to ensure continued reliability and availability of fuel supplies to meet Southern California's energy needs.

1.4.2.3 Source Control Program Plan

LAHD's requirements of the SCP Plan are consistent with various standards required by the American Petroleum Institute (API). The new lease would contain provisions for Shell to comply with the LAHD's SCP through the development and implementation of a written Plan, which would outline measures to further reduce the potential for accidental release of petroleum products at the terminal. Key elements of the SCP Plan include inspections of and certain improvements to above ground tanks that are used to store petroleum products. This work may include; adding a double bottom, installation of leak detection systems, and maintenance and/or upgrades to cathodic protection systems. One of the terminal's tanks has been upgraded with a double bottom and a continuous leak detection system, and two additional tanks have been inspected and are scheduled to be upgraded in the near future. Inspections and added controls to the remaining eight tanks would occur after the tanks are temporarily removed from service for routine maintenance. Facility piping upgrades would occur on a case-by-case basis and could include their relocation aboveground where feasible and/or new leak detection systems. Added controls and leak protection improvements would commence within five years of the start of the new lease, in accordance with the SCP Plan.

1.4.2.4 Project Construction Phasing and Schedule

Construction of the proposed Project is expected to begin in 2018. Construction associated with the first platform (Berth 168) would occur first and take approximately two-years to complete, followed by a similar period for construction of a platform at Berth 169. The construction schedule may be subject to variations. Up to 24 workers would be required at the site at any given time, depending on the construction phase. Construction staging and lay down area is expected to occur on the Project site; however, it could include use of an adjacent vacant lot to the east of the Project site, adjacent to Berths 171 to 173, if necessary.

The following nine phases would allow the terminal to continue to operate while improvements are being made:

- Phase I: Install the Vapor Control System at Berth 169
- Phase II: Prepare Berth 169 for Stand-Alone Operation
- Phase III. Berth 168 Demolition and Wharf Structure Improvements
- Phase IV: Shore Side Improvements: Piping Replacement and Related Support Structures
- Phase V: New Topside Equipment at Berth 168 and Commissioning
- Phase VI: Berth 169 Demolition and Improvements
- Phase VII: Berth 169 Wharf Structure Improvements
- Phase VIII: New Topside Equipment at Berth 169 and Commissioning
- Phase IX: Source Control Program Plan

1.4.2.5 Proposed Project Operations

The proposed Project is required in order to bring the existing terminal into compliance with MOTEMS and would be comprised of replacing the existing two-berth timber wharf with two loading platforms (one at each berth) and ancillary improvements. The improvements under the proposed Project would not facilitate an increase in capacity or throughput (i.e., barrels and vessel calls) during the new 30-year lease period. However, the proposed Project would allow the terminal to remain in operation through 2048 and the annual throughput could be affected over the lease period due to market fluctuations.

Although future total throughput cannot be forecasted with any level of certainty, for the purposes of the analysis, it is projected that the peak annual throughput associated with the proposed lease extension would be up to approximately 25.5 million barrels over the new lease term (the approximate annual throughput based on Shell's two percent compound annual growth rate projection). At an annual throughput of approximately 25.5 million barrels, the terminal is projected to accommodate up to 166 annual vessel calls (comprised of both tankers and barges; 50 percent for each vessel type). The largest vessels that could be accommodated at the terminal would remain the same as existing conditions, approximately 86,000 dwt tankers. The forecasted increased throughput would not require additional employees.

The proposed Project would not increase the existing terminal's capacity to handle petroleum products or affect the types of products handled. Accordingly, the proposed Project would not require installation of any other pipeline, storage, or refining projects. The proposed Project therefore would not affect the operations of any other facilities, including those that are connected via pipelines (e.g., the Carson Distribution Facility). Thus, the proposed Project is deemed to have independent utility, and represents a rational end-point for a marine oil terminal project and for the review of the environmental impacts.

1.5 Changes to the Draft EIR

Actual changes to the text, organized by Draft EIR chapters and sections, can be found in Chapter 3, "Modifications to the Draft EIR," of this Final EIR. The changes to the Draft EIR have been made for the purpose of correcting and clarifying information contained within the Draft EIR based on comments received from the public. Changes noted in Chapter 3 are identified by text strikeout and underline. These changes are referenced in Chapter 2, "Responses to Draft EIR Comments," of this Final EIR, where applicable. The project description is presented above and incorporates any editorial changes noted in the Responses to Comments and other minor corrections.

The changes and clarifications presented in Chapter 3 of the Final EIR were reviewed to determine whether or not they warranted recirculation of the Draft EIR prior to certification of the EIR according to CEQA Guidelines and Statutes. The changes would not result in any new significant environmental impacts or a substantial increase in the severity of an existing environmental effect. In response to public comments, changes and clarifications have been made throughout the Draft EIR. The changes are consistent with the findings contained in the environmental impact categories in Chapter 3, "Environmental Analysis," of the Draft EIR, as amended. There would be no new or increased significant effects on the environment due to the proposed project changes, and no new alternatives have been identified that would reduce significant effects of the proposed Project. Therefore, the Draft EIR does not need to be recirculated, and the EIR can be certified without additional public review, consistent with PRC Section 21092.1 and CEQA Guidelines Section 15088.5.

Chapter 2
Response to Comments

2.1 Distribution of the Draft EIR

The Draft EIR prepared for the LAHD was distributed to the public and regulatory agencies on March 27, 2018, for a 45-day review period. Approximately 94 notices, 19 Executive Summary documents, and eight digital copies (CD) of the Draft EIR were distributed to various government agencies, organizations, individuals, and Port tenants. Printed copies of the Draft EIR were available for review at the following locations:

- Los Angeles Harbor Department, Environmental Management Division, 222 West 6th Street, Suite 900, San Pedro, CA 90731
- Los Angeles Public Library - Central Branch, 630 West 5th Street, Los Angeles, CA 90071
- Los Angeles Public Library - San Pedro Branch, 931 South Gaffey Street, San Pedro, CA 90731
- Los Angeles Public Library - Wilmington Branch, 1300 North Avalon, Wilmington, CA 90744

In addition to printed copies of the Draft EIR, digital copies were made available. Due to the size of the document, the digital copies were prepared as a series of PDF files to facilitate downloading and printing. Members of the public were also invited to request a CD containing the EIR. Digital copies of the Draft EIR on CD were available free of charge to interested parties. The Draft EIR was available in its entirety on the Port web site at http://www.portoflosangeles.org/environmental/publicnotice.htm. Interested parties were required to provide written comments on the Draft EIR, which must be postmarked by May 10, 2018.

The LAHD conducted a public hearing regarding the Draft EIR on April 11, 2018, to provide an overview of the proposed Project and alternatives and to accept public comments on the proposed Project, alternatives, and environmental document.

The public comment and response component of the CEQA process serves an essential role. It allows the respective lead agencies to assess the impacts of a project based on the analysis of other responsible, concerned, or adjacent agencies and interested parties, and it provides an opportunity to amplify and better explain the analyses that the lead agencies have undertaken to determine the potential environmental impacts of a project. To that extent, responses to comments are intended to provide complete and thorough explanations to commenting agencies and individuals, and to improve the overall understanding of the Project for the decision-making bodies.

The LAHD received seven (7) comment letters on the Draft EIR during the public review period. One (1) commenter provided verbal comments at the public hearing. Table 2-1 presents a list of those agencies, organizations, and individuals who commented on the Draft EIR.

Table 2-1: Public Comments Received on the Draft EIR

Letter Code	Date	Individual/Organization	Page
State Government			
CARB	05/09/18	Richard Boyd, Chief, Risk Reduction Branch, Transportation and Toxics Division, California Air Resources Board	2-6 to 2-16
CSLC	05/10/18	Cy R. Oggins, Chief, Division of Environmental Planning and Management	2-17 to 2-29
SCH	05/08/18	Scott Morgan, Director, Office of Planning and Research, State Clearinghouse	2-30 to 2-32
Regional and Local Government			
LASAN	03/29/18	Ali Poosti, Division Mgr., City of Los Angeles, Wastewater Engineering Services Division, LA Sanitation	2-33 to 2-34
SCAQMD	06/02/17	Lijin Sun, J.D., Program Supervisor, CEQA IGR, Planning, Rule Development & Area Sources, South Coast Air Quality Management District	2-35 to 2-48
Organizations			
CSPNC	04/30/18	Doug Epperhart, President, Coastal San Pedro Neighborhood Council	2-49 to 2-50
NC-CSP	05/09/18	Christian Louis Guzman, Board member and president, Central San Pedro neighborhood Council	2-51 to 2-52
Draft EIR Public Hearing – Transcript			
PH	04/11/18	Frank Anderson, Central San Pedro Neighborhood Council (Port Committee Chair)	2-62 to 2-63 and 2-66 to 2-67

2.2 Responses to Comments

In accordance with CEQA (Guidelines Section 15088), the LAHD has evaluated the 0comments on environmental issues received from agencies and other interested parties and have prepared written responses to each comment pertinent to the adequacy of the environmental analyses contained in the Draft EIR. In compliance with CEQA Guidelines Section 15088(b), the written responses address the environmental issues raised. In addition, where appropriate, the basis for incorporating or not incorporating specific suggestions into the proposed Project is provided. In each case, the LAHD has expended a good faith effort, supported by reasoned analysis, to respond to comments.

This section includes responses not only to the written comments received during the 45-day public review period of the Draft EIR, but also the verbal comments made at the public hearing for the Draft EIR. Some comments have prompted revisions to the text of the Draft EIR, which are referenced and shown in Chapter 3, "Modifications to the Draft EIR." A copy of each comment letter/comment is provided, and responses to each comment letter immediately follow. All of the comments received and the responses to those comments will be considered by the decision-makers prior to taking any action on the proposed Project.

Comments on the Draft EIR requested that revisions be made to two mitigation measures (MM AQ-1 and MM AQ-2) and a lease measure (LM AQ-1) and that additional mitigation be considered. A lead agency is required to recirculate a Draft EIR when the agency adds "significant new information" to the EIR after the close of the public comment period but prior to certification of the Final EIR (Public Resources Code Section 21092.1; State CEQA Guidelines Section 15088.5.). "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement" (State CEQA Guidelines Section 15088.5(a)). "Significant" new information includes information showing that "(1) [a] new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented [;] or (2) [a] substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance" (State CEQA Guidelines Section 15088.5 (a)(1), (a)(2)).

The Resources Agency adopted Section 15088.5 of the State CEQA Guidelines in order to incorporate the California Supreme Court's decision in *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal. (1993) 6 Cal.4th 1112*. According to the Supreme Court, the rules governing recirculation of a Draft EIR are "not intend[ed] to promote endless rounds of revision and recirculation of EIRs" (Laurel Heights II, supra, 6 Cal.4th at p. 1132). Instead, recirculation is "an exception, rather than the general rule" (*Mount Shasta Bioregional Ecology Center v. County of Siskiyou (2012) 210 Cal.App.4th 184, 221*).

Under these standards, a change to a proposed project, made in response to comments on a Draft EIR, generally does not trigger the obligation to recirculate the Draft EIR. "The CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation, evoking revision of the original proposal" (*County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d 185, 199*; see *River Valley Preservation Project v. Metropolitan Transit Development Bd. (1995) 37 Cal.App.4th 154, 168, fn. 11*).

As these cases recognize, CEQA encourages the lead agency to respond to concerns as they arise, by adjusting a project or developing mitigation measures, as necessary. That a project evolves to address such concerns is evidence of an agency performing meaningful environmental review. A rule requiring recirculation of the Draft EIR any time a project changes would have the perverse unintended effect of calcifying or freezing the original proposal, and of penalizing the lead agency or the project sponsor for revising the project in ways that may be environmentally benign or even beneficial. In light of this policy concern, the courts uniformly hold that the lead agency need not recirculate the Draft EIR merely because the proposed project evolves during the environmental review process. (See, e.g., *Citizens for a Sustainable Treasure Island v. City and County of San Francisco*

(2014) 227 Cal.App.4th 1036, 1061-1065 [project modification requiring consultation with Coast Guard regarding building designs did not require recirculation of Draft EIR]; *South County Citizens for Smart Growth v. County of Nevada (2013) 221 Cal.App.4th 316, 329-332* [identification of staff-recommended alternative after publication of Final EIR did not trigger obligation to recirculate Draft EIR because alternative resembled other alternatives that the EIR had already analyzed]; *Western Placer Citizens for an Agricultural and Rural Environment v. County of Placer (2006) 144 Cal.App.4th 890, 903-906* [revision in phasing plan did not trigger recirculation requirement because revision addressed environmental concerns identified during EIR process].)

Similarly, information that clarifies or expands on information in the Draft EIR does not require recirculation. (See, e.g., *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors (2013) 216 Cal.App.4th 614, 654-656* [addition of a hybrid alternative to the Final EIR did not trigger duty to recirculate the Draft EIR]; *Clover Valley Foundation v. City of Rocklin (2011) 197 Cal.App.4th 200, 219-224* [information regarding presence of cultural resources on property did not require recirculation because information amplified on information that was already in Draft EIR]; *California Oak Foundation v. Regents of Univ. of Cal. (2010) 188 Cal.App.4th 227, 266-268* [letters addressing seismic risks did not trigger duty to recirculate Draft EIR, where letters recommended further analysis but did not contradict conclusions in Draft EIR]; *Cadiz Land Co. v. Rail Cycle, L.P. (2000) 83 Cal.App.4th 74, 97* [commenter's disagreement with analysis of groundwater flow in EIR did not require recirculation because substantial evidence supported EIR's analysis; lead agency had discretion regarding which expert to rely upon]; *Marin Municipal Water Dist. v. KG Land California Corp (1991) 235 Cal.App.3d 1652*, 1666-1668 [clarifying information regarding potential length of moratorium was not "significant new information"].)

The following discussion applies these standards to the comments submitted on the Draft EIR. In particular, the discussion focuses on whether the information provided in the comment is new, and whether that information discloses:

- A new significant impact that the project or mitigation would cause,
- An impact that would be substantially more severe unless mitigation is adopted that avoids the impact,
- A feasible project alternative is available that would avoid a significant impact, but the applicant will not adopt it, or
- That the Draft EIR is "fundamentally and basically inadequate" such that meaningful public comment was precluded (CEQA Guidelines Section 15088.5(a)).

In the instance of this EIR, very few comments were provided on the document. The responses to comments provide the following information:

- First and foremost, the responses address the environmental concerns raised by the comments, and describe how they are addressed in the document;
- They provide corrections to the text, where such corrections are warranted; and
- They expand on or provide minor clarifications to information already included in the Draft EIR in those instances where comments question this information.

However, none of the conditions warranting recirculation of a Draft EIR, as specified in State CEQA Guidelines Section 15088.5 and described above, has occurred. As a result of responses to comments and the additional of new information, no new significant impacts would result; there is no increase in the severity of a significant impact identified in the Draft EIR, following mitigation; no feasible alternatives have been recommended that would avoid a significant impact, wherein the applicant has refused to adopt such an alternative; and as to the Draft EIR adequacy, the LAHD believes the EIR is complete and fully compliant with CEQA.

2.2.1 State Government Comments

CALIFORNIA AIR RESOURCES BOARD

May 9, 2018

Mr. Christopher Cannon
Director of Environmental Management
City of Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, California 90731

Dear Mr. Cannon:

Thank you for providing the California Air Resources Board (CARB) the opportunity to comment on the City of Los Angeles Harbor District's (LAHD) Draft Environmental Impact Report (DEIR) for Berths 167-169 (Shell Oil) Marine Oil Terminal Wharf Improvements Project (Project) SCH#2015061102. The proposed Project is a wharf improvement project necessary to comply with Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). MOTEMS are comprehensive engineering standards for the analysis, design, inspection, and maintenance of existing and new marine oil terminals. The proposed Project also includes a new 30-year lease between LAHD and Shell Oil Company.

LAHD prepared the DEIR to evaluate the environmental impacts related to construction and operations of the proposed Project. The DEIR concludes that significant and unavoidable impacts associated with operational air quality and greenhouse gas emissions will remain, even with mitigation. Even where impacts will remain significant and unavoidable after mitigation, the California Environmental Quality Act (CEQA) nevertheless requires that all feasible[1] mitigation measures be incorporated (see Cal. Pub. Resources Code § 21081;14 CCR § 15126.2(b)). CARB staff recognizes the commitment LAHD has made to reduce harmful emissions from port activities and commends you on your progress. However, CARB staff recommends LAHD consider the emission control strategies, outlined in our attached comments on the proposed Berth 164 (Valero) Marine Oil Terminal Wharf Improvements Project (Elizabeth Yura to Christopher Cannon, April 19, 2016), as potential feasible mitigation measures. CARB-1

To align with the goals of California's Sustainable Freight Action Plan, the State Implementation Plan, and CARB's efforts to reduce vessel at-berth emissions, we encourage LAHD to design the new terminal and associated infrastructure to accommodate zero or near-zero emissions technology. This would help ensure that LAHD is doing everything feasible to minimize significant air quality impacts posed by

[1]For the purposes of CEQA, "feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. (California Code of Regulations, title 14, section 15364.)

the proposed Project. Including these suggested measures in the proposed Project's design now would be the most cost-effective time to incorporate these technologies into the terminal.

CARB staff appreciates the opportunity to comment on the DEIR for the proposed Project. We hope LAHD will take advantage of this opportunity to incorporate alternative technologies and infrastructure into the design.

CARB-1 cont.

Please include CARB on your State Clearinghouse list of selected State agencies that will receive the Final Environmental Impact Report. If you have questions, please contact Robbie Morris, Air Pollution Specialist, Exposure Reduction Section at (916) 327-0006 or via email at robbie.morris@arb.ca.gov. You may also contact me at (916) 322-8285 or via email at richard.boyd@arb.ca.gov.

Sincerely,

Richard Boyd, Chief
Risk Reduction Branch
Transportation and Toxics Division

Attachment

cc: Morgan Capilla
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Lijin Sun
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South Coast Air Quality Management District
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State Clearinghouse
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Sacramento, California 95812

ATTACHMENT

Air Resources Board

Mary D. Nichols, Chair
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

August 19, 2016

Mr. Christopher Cannon
Director of Environmental Management
City of Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, California 90731

Dear Mr. Cannon:

Thank you for providing the Air Resources Board (ARB) the opportunity to comment on the Notice of Preparation (NOP) for the proposed Berth 164 [Valero] Marine Oil Terminal Wharf Improvements Project (Project) draft Environmental Impact Report (EIR). The Project would replace the current terminal with a new facility that would comply with Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). While the Project is focused on compliance with MOTEMS rather than expanding the capacity of the terminal, we encourage the Port of Los Angeles (Port) to design the new terminal and associated infrastructure to accommodate zero or near-zero emissions technology. This would help ensure the Project is doing everything feasible to avoid or minimize any potentially significant air quality impacts posed by the Project. Incorporating these suggested measures into the Project's design now would be the most cost-effective time to incorporate these technologies into the terminal. It would also align with the goals of California's Sustainable Freight Action Plan, the State Implementation Plan, and ARB efforts to reduce vessel at-berth emissions, as discussed below. CARB-2

ARB staff is currently considering amendments to the Ocean-going Vessels At-Berth Regulation (At-Berth Regulation). These proposed amendments are expected to include the addition of vessel types not currently covered by the At-Berth Regulation, including tankers. Tankers are a high priority for California's efforts to reduce air emissions because they are a large emissions source while at-berth, both statewide and in the South Coast Air Basin. Specifically, according to ARB's statewide emissions inventory, tankers now contribute more at-berth carbon dioxide and particulate matter emissions than any other vessel type, and are the second largest source of at-berth nitrogen oxides emissions after container ships. Emission reductions are necessary from this source to attain ambient air quality standards and to better protect nearby communities from the harmful effects of fine particulate matter.

Among the control strategies currently under investigation are terminal-based approaches such as the following: (1) capture and control ("bonnet") systems, (2) shore-side electric booster pumps, and (3) shore-side (grid-based) power. While we are still in the early stages of investigating these emission control options, we encourage the Port to consider the possibility that one or more of these technologies may be needed in the future to meet air quality requirements for tankers or tanker terminals. We also encourage the Port to continue to explore new control strategies in addition to the ones described here.

With regard to the first control strategy, capture and control systems, barge-based systems are already in use for container ship auxiliary engines that could potentially be scaled up to accommodate the combined emissions from tanker boilers and auxiliary engines. In this case, the barge would be towed to a position alongside the vessel, where the capture and control equipment would be connected to the vessel with a barge-mounted crane. Another capture and control option would consist of a land-based system where the emission control devices and ducting system are located on the wharf. There are two projects under development that will be using this type of system. For either type of capture and control system, it would be easier to construct a new terminal designed to accommodate these systems (loading on the wharf from the barge or on-land equipment, footprint for the land-based system, etc.), rather than retrofitting later.

CARB-2 cont.

With regard to the second control strategy, the electric booster pump, a land-based pump could be used to reduce the load on the vessel boiler or other diesel-powered driver for the vessel pumps used to offload crude or other products. For this option, there would need to be an adequate footprint at the terminal or nearby for the electric motor and pump, and the electrical capacity to provide the necessary power. Even if the electric motor and pump are not included as part of the proposed Project itself, it may be worthwhile to provide space for this option in case it is pursued at a later time.

Finally, shore-power may be an option for the terminal if the operator expects to receive vessels that visit frequently, especially if they use electrically-driven pumps to offload their product. At this early stage in developing the Project, the terminal could relatively easily build in shore power, or the capability to install it later by constructing one or more vaults and conduit to run electrical lines to the shore-side infrastructure and utility inter-connection.

ARB staff appreciates the opportunity to comment on the Notice of Preparation for the proposed Project. We hope the Port will take advantage of this opportunity to

CARB-2 cont.

incorporate zero or near-zero emissions technologies into the design, or the capability to design the Project to allow easy installation of these new and innovative technologies in the future.

Please include ARB on your State Clearinghouse list of selected State agencies that will receive the draft EIR as part of the formal public review and comment period. If you have any questions, please contact Ms. Angela Csondes, Manager, in our Technical Analysis Section, at (916) 323-4882 or via email at angela.csondes@arb.ca.gov.

Sincerely,

Elizabeth Yura, Chief
Emissions Assessment Branch

cc: See next page

cc: State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

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Chief, Marine Environmental Protection Division
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Long Beach, California 90802

Ms. Connell Dunning
Environmental Review Section
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Mr. Ian MacMillan
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Diamond Bar, California 91765

Ms. Erin Sheehy
Port of Los Angeles
425 South Palos Verdes Street
San Pedro, California 90731

2.2.1.1 California Air Resources Board (CARB)

Response to Comment CARB-1

Thank you for your review and comments on the Draft EIR. The comment provides a brief summary of the proposed Project and the conclusions of the Draft EIR with respect to air quality and greenhouse gas (GHG) impacts and does not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

Regarding CARB's recommended emission control strategies and use of zero or near-zero emission technologies, please see Response to Comment CARB-2, below, which specifically responds to the attached comment letter on the Berth 164 [Valero] Marine Oil Terminal Improvements Project Notice of Preparation, as if it were a comment on the Draft EIR.

As requested, a copy of the Final EIR will be provided and your comments will be included in the Final EIR presented for review and consideration by the Board of Harbor Commissioners (the Port's decision-making body).

Response to Comment CARB-2

The comment encourages the Port to design the upgraded Shell Marine Oil Terminal and associated infrastructure to accommodate zero or near-zero emissions technology. The Port is investigating the feasibility of utilizing a vessel emissions capture and control "bonnet" system for Shell Marine Oil Terminal operations, per lease measure LM AQ-2 in the Draft EIR, which is discussed in more detail below.

On a port-wide level, the Port is committed to clean air and the ultimate transition toward zero and near-zero emissions technologies through implementation of the 2017 Clean Air Action Plan (CAAP). The 2017 CAAP aligns with the California Sustainable Freight Action Plan and supports the zero-emissions and freight efficiency targets set by the state and other agencies. It contains strategies to reduce emissions from sources in and around the Ports, plans for zero-emissions infrastructure, encourages freight efficiency, and addresses energy resources. The strategies in the 2017 CAAP include:

- Advancing the Clean Trucks Program to phase out older trucks and transition to near-zero emissions in the early years and zero-emission trucks by 2035;
- Requiring terminal operators to purchase zero-emissions cargo handling equipment if feasible, or near-zero or cleanest available when procuring new equipment;
- Further reducing emissions from ships at-berth, through technology demonstrations and accelerated deployment, and transitioning the oldest, most polluting ships out of the San Pedro Bay fleet through green ship incentives;
- Accelerating the deployment of cleaner engines and operational strategies to reduce harbor craft emissions; and
- Expanding use of on-dock rail to shift more cargo leaving the port to go by rail.

The majority of the zero emission technologies currently being developed are oriented towards electrification of trucks and equipment to move goods to and from the Ports and within the Ports and terminals. At the project level, the Shell Marine Oil Terminal does not use on-road vehicles or locomotives to transport its products, nor does it utilize cargo handling equipment (product movement is performed via

pipelines). Although the commenter's note regarding the goals of California's Sustainable Freight Action Plan does not apply specifically to the proposed Project, the Port is committed to reducing emissions Port-wide and evaluating zero-emissions technologies where feasible and practicable. While zero-emissions technologies are promising; they would not likely provide substantial emissions reductions at the Shell Marine Oil Terminal.

Nonetheless, in recognition of the potential future promise of such technologies, LAHD has included a lease measure (LM) in the Draft EIR that requires periodic technology reviews (LM AQ-1). This lease measure will ensure that the Tenant reconsiders the feasibility of zero- and near-zero- emission technologies in the future as the technologies continue to develop. In conclusion, the LAHD, working collaboratively with Port tenants and other stakeholders, is committed to expanded development and testing of zero-emission technologies, identification of new strategic funding opportunities to support these expanded activities, and planning for long-term infrastructure development to sustain ongoing programs, all while ensuring competitiveness among the maritime goods movement businesses.

The comment notes that CARB is considering amendments to the Ocean-Going Vessel At-Berth Regulation that would include vessels types such as tankers, which are not currently covered by the regulations. The Port supports CARB's effort in this regard, as tank vessels are not generally owned or operated by marine oil terminal operators within the Port, which means the Port does not have an implementation mechanism to require certain types of at-berth emission reduction measures. As such, a statewide framework is better suited to implementing certain types of emission reduction strategies than at a project level.

The comment also encourages the Port to design the terminal to accommodate three possible future control measures currently under investigation by CARB for incorporation into the At-Berth Regulation. The measures are the capture and control ("bonnet") system, shore-side electric booster pumps, and shore-side (grid-based) power. As mentioned above, the Port is requiring an investigation of the feasibility of utilizing a bonnet system or any other potential emission reduction system at Shell's Marine Oil Terminal facility, per lease measure LM AQ-2 in the Draft EIR. As part of LM AQ-2, safety and navigation considerations would be included in the feasibility study. Following are the details of lease measure LM AQ-2, as modified in this Final EIR (~~strikethrough~~ for text deleted and <u>underline</u> for text added):

> **LM AQ-2: At-Berth Vessel Emissions Capture and Control System Study.** The Tenant shall begin to evaluate the financial, technical, and operational feasibility of operating barge and land-based vessel emissions capture and control systems and **any other systems** associated with emission reductions (hereinafter "Control Systems") that are available within three (3) months after the Effective Date. The City of Los Angeles (City) and Tenant will decide jointly which systems should be considered for the reduction of emissions from all vessels calling at the Premises. The evaluation of feasibility shall consider any potential impacts upon navigation, safety, and emission reductions. Cost Effectiveness (as defined below), and any other factors reasonably determined by Tenant and the City to be relevant shall also be considered. For purposes of the feasibility evaluation, "Cost Effectiveness" shall be defined as the annualized cost (in Dollars per year) of the Control Systems ("Annualized Cost") based on an agreed time period (the duration of such period determined with reasonable consideration of the Carl Moyer grant guidelines), divided by the annual net emission reductions (unweighted aggregate of net emissions reduction in tons per year of VOC, NOx, and PM10) over the same time period during use of the Control Systems ("Net Annual Emission Reductions"). Annualized Cost shall include all costs associated with the Control Systems, including without limitation, all capital costs associated with design, permitting and construction of the Control Systems and all costs associated with system evaluation, operations and maintenance. Cost Effectiveness (dollars per ton) may be calculated pursuant to the formulas below.

- Cost Effectiveness ($/ton) = Annualized Cost ($/year) / Net Annual Emission Reductions (tons/year)
- Net Annual Emission Reductions = Annual Vessel Emission Reductions – Annual Emissions Generated by Control System and Associated Equipment Operations

If Cost Effectiveness is greater than ~~Appendix G of~~ the Carl Moyer ~~grant guidelines in effect~~ Program Guidelines, as approved by the California Air Resources Board as of the Effective Date, then implementation of the Control Systems shall not be considered feasible.

Tenant shall provide the Director of Environmental Management Division for the Harbor Department with a written report (the "Report") documenting the findings and conclusions of the feasibility analysis within one year of the Effective Date. The Report's feasibility conclusion shall include but not be limited to specific findings in the following areas: (1) size constraints; (2) allowance for articulation of the recovery crane/device to service a variety of ship sizes that may reasonably call at the premises during the term of the proposed permit; (3) navigation for terminal operations as well as those of adjacent terminals; (4) compliance with Marine Oil Terminal Engineering and Maintenance Standards; (5) operational safety issues; and (6) compliance with the rules and orders of any applicable regulatory agency. The deadline for Tenant to submit the Report may be extended with the approval of the Board of Harbor Commissioners (Board), provided that such approval shall not be unreasonably withheld. City shall have ~~one year~~six months to review and comment on the Report unless the Board reasonably determines that additional time is needed as a result of unanticipated events or any events beyond the reasonable control of the City. The Report and any associated staff comments from the City will be presented by the City to the Board at a public meeting. If the City's review of the Report is delayed beyond one year, then the City shall present this information to the Board at a public meeting along with a proposed new comment deadline for the City.

If the Board and Tenant agree that implementation of a Control System(s) is/are feasible, then Tenant shall complete a pilot study ("Pilot Study") within three years of the later of (i) receiving all approvals and permits required by Applicable Laws for such study; (ii) receiving any and all licenses and other intellectual property rights required by Applicable Laws to conduct such study; (iii) commencing with terminal operations upon the completion of all New Improvements and Tenant Constructed Improvements; and (iv) Board providing Tenant with approval to proceed. The deadline for Tenant to complete the Pilot Study may be extended with approval by the Board, provided that such approval shall not be unreasonably withheld. The Pilot Study shall consist of (i) installation of a test control system (the "Test System") for purposes of testing the performance of a Control System; and (ii) testing of the Test System and the collection of data therefrom. At the conclusion of testing, the Tenant shall submit a report (the "Pilot Study Report") to the Board. The Pilot Study Report shall include the following information: vessels tested, operation and maintenance costs, emission reductions, operational considerations and any other information Tenant reasonably determines to be relevant. The results of the Pilot Study, and any intellectual property rights therein, shall be owned by Tenant. The City and the Board shall use the results and Pilot Study Report only for the evaluation of the Pilot Study. City shall not issue any press releases or make any written public disclosures with respect to the Report or the Pilot Study Report without first providing Tenant with a reasonable opportunity to review such releases or disclosure for accuracy and to ensure that no technical information is disclosed where such public disclosure is not necessary (Tenant understands that nothing herein shall be interpreted to supersede the California Public Records Act and the City's responsibilities thereto).

If, based on the results of the Pilot Study set forth in the Pilot Study Report, the City and Tenant determine that all of the issues relating to feasibility and regulatory requirements of the Control System were adequately addressed, then Tenant shall, as soon as reasonably practicable after such

determination, implement the Control System(s) into its operations throughout the remainder of the permit.

All capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the tenant's permit.

LM AQ-2 requires the evaluation of both barge- and land-based vessel emissions capture and control systems, as recommended in the comment.

Regarding the comment about booster pumps, the existing terminal area, and the configuration of the storage tanks, piping and related infrastructure has developed over time and has made full use of the terminals acreage. As a consequence, available space on the terminal is limited. In addition to space limitations, adding booster pumps to partially offset at-berth vessel emissions would likely require a substantial redesign and reconfiguration of terminal infrastructure to accommodate a new set of pumps and associated power infrastructure. Due to site constraints and expected level of redesign and reconfiguration that would likely be required, compliance would occur if CARB updates, and requires booster pumps in its At-Berth Regulation.

Regarding the use of Alternative Maritime Power (AMP) for tankers, it should be noted that unlike container terminals where the terminal operator also owns and operated the vessel fleet, Shell does not own and operate a fleet of tank vessels that serve the marine oil terminal. Rather, the vessels that call on the terminal can be owned and operated by various different entities, and neither Shell nor the Port has the authority or the ability to implement AMP conversion of tank vessels calling on the Shell Marine Oil Terminal. CARB has indicated that bulk ships, tankers, and vehicle carriers are not considered to be good candidates for shore power relative to container ships, passenger ships and reefers (CARB, 2007. Technical Support Document: Initial Statement of Reasons for the Proposed Rulemaking, October 2007, page II-3] due in part to low number of repeat visits to any single port, lower power loads, and short berthing times. In addition, there may be safety considerations relating to the presence of AMP-related electrical connections in close proximity to handling operations of petroleum products. The Port would consider installing AMP infrastructure at the Project site at a future time if CARB reevaluates, updates, and requires AMP conversion of tank vessels in its At-Berth Regulation. Prior to then, installing AMP at the terminal would mean considerable capital cost for infrastructure that would not provide any At-Berth emissions reduction benefits, as tank vessels are not AMP equipped.

The comments do not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
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May 10, 2018

File Ref: SCH #2015061102

Christopher Cannon
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes Street
San Pedro, CA 90731

VIA REGULAR & ELECTRONIC MAIL (cegacomments@portla.org)

Subject: Draft Environmental Impact Report (EIR) for the Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project, Los Angeles County

Dear Mr. Cannon:

The California State Lands Commission (Commission) staff has reviewed the subject Draft EIR for the Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project (Project), which is being prepared by the City of Los Angeles Harbor Department (Harbor Department). The Harbor Department, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Commission is a trustee agency for projects that could directly or indirectly affect sovereign land and their accompanying Public Trust resources or uses.

Commission Jurisdiction, Public Trust Lands, and Regulatory Authority

The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; and 6306). For this Project, the City of Los Angeles (City), acting by and through the Port of Los Angeles (Port), is trustee of sovereign tide and submerged lands granted by the Legislature pursuant to Chapter 656, Statutes of 1911, and Chapter 651, Statutes of 1929, and as amended, no minerals reserved to the State. All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine. The Commission also has regulatory authority over the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS), which are codified in California Code of Regulations, title 24, California Building Code, Chapter 31F—Marine Oil Terminals.

CSLC-1

Project Description

The primary goal of the Project is to comply with MOTEMS to protect public health, safety, and the environment. The primary elements of the Project include: CSLC-1 cont.

- Construction of a new MOTEMS compliant wharf and mooring system
- Pipeline and pipeline support improvements along the terminal and topside equipment replacement
- A new 30-year lease with the Harbor Department for the continued operations of the marine oil terminal

Environmental Review

Commission staff requests that the Harbor Department consider the following comments on the Project's EIR.

General Comment

1. Commission staff suggests that the Harbor Department review the Tesoro Avon Marine Oil Terminal Lease Consideration EIR (Tesoro Avon EIR) for consistency with similar projects (State Clearinghouse [SCH] No. 2014042013; CSLC EIR No. 761). This EIR was prepared and certified by the Commission for similar marine oil terminal improvements, including both the impacts associated with a 30-year lease and MOTEMS compliance work. The EIR is available at www.slc.ca.gov/Info/CEQA/Avon.html. CSLC-2

Biological Resources

2. **Section 3.2, Impact BIO-2, Operation:** The EIR fails to analyze the impacts of a large volume spill on eelgrass beds adjacent to the terminal. Indication that impacts are unlikely, because spills would likely be cleaned up before they could impact eelgrass, is insufficient to reach the conclusion that impacts from ongoing operations would be less than significant. At a minimum, the EIR should describe all specific measures already in place, such as booms sufficient to protect the existing eelgrass beds and the capability to swiftly deploy booms through regular practice drills. If such measures are not part of the terminal's operation plans, they should be required as mitigation measures. CSLC-3

3. **Section 3.2, Impact BIO-3, Operation/Invasive species**: Commission staff respectfully disagrees with the determination that the ongoing operations of a 30-year lease would not result in a substantial disruption of local biological communities, due to the introduction of non-native, and particularly invasive, species. Regulations exist to reduce the introduction of non-native species in ballast water and from vessel hull fouling, and the risk of introducing such species is low. However, the impact of introducing new nonindigenous aquatic species via ballast water and vessel biofouling could potentially be so devastating, that even a reduced risk has the potential to cause a significant and unavoidable adverse impact to special-status species and habitats. In the Tesoro Avon EIR, the Commission found this impact to be Significant and Unavoidable. While the subject Draft EIR identifies CSLC-4

CSLC-4 cont.

the impact as Significant and Unavoidable (section 3.2.5, page 3.2-40), it is listed as Less Than Significant in the discussion for Impact BIO-3 and in Tables ES-1 and 3.2-6. For consistency, Commission staff recommends the impact be identified as Significant and Unavoidable for Impact BIO-3 and in Tables ES-1 and 3.2-6.

4. **Section 3.2, Impact BIO-3, Construction/Invasive Species:** The EIR states the potential for invasive species introduction during construction will be the same as current port operations. Commission staff recommends that the EIR consider that new uncolonized man-made structures could facilitate establishment of new non-native species or increase abundance of already established ones. CSLC-5

5. **Section 3.2, Impact BIO-3, Operation:** California has implemented new biofouling management regulations applicable to vessels arriving at California ports. According to California Code of Regulations, title 2, section 2298 et seq., vessels arriving at any California port must have a Biofouling Management Plan and Biofouling Record book onboard, including detailed information about biofouling management of the vessel's underwater surfaces and antifouling coating use. Commission staff requests the following updates to the EIR:

    a. **Section 3.2.3.8:** Please clarify the current regulations about ballast water exchange for vessels arriving from a port within the Pacific Coast Region (PCR). In accordance with California Code of Regulations, title 2, section 2284, vessels coming from a port within the PCR are required to employ ballast water management practices prior to discharging ballast water. If ballast water exchange is the management practice to be used, it must be performed 50 nautical miles from any land. CSLC-6

    b. **Section 3.2.3.8:** Please update information about current Ballast Water Management Systems approved by the U.S. Coast Guard (USCG). The Coast Guard Maritime Information Exchange currently lists six USCG Type Approved ballast water management systems that may be used to comply with the federal ballast water discharge standards.

6. **Section 3.2, Marine Mammals:** The EIR should specify the maximum speed allowed for vessels, to avoid harmful impacts to marine mammals. CSLC-7

Hazards and Hazardous Materials

7. Analyses performed with similar EIRs certified by the Commission evaluated the risk of oil spills based on historic data in the area of potential effect. Please see:

    - Tesoro Avon EIR (SCH No. 2014042013; CSLC EIR No. 761, www.slc.ca.gov/Info/CEQA/Avon.html)
    - Tesoro Amorco Marine Oil Terminal Lease Consideration EIR (SCH No. 2012052030; CSLC EIR No. 760, www.slc.ca.gov/Info/CEQA/Tesoro_Amorco.html) CSLC-8
    - Shore Marine Oil Terminal Lease Project EIR (SCH No. 2007112108; CSLC EIR No. 744, www.slc.ca.gov/Info/Reports/NuStar/FEIR.pdf)

- Shell Martinez Marine Terminal Lease Consideration EIR (SCH No. 2004072114; CSLC EIR No. 722, www.slc.ca.gov/Info/Reports/ShellMartinez/MOT-FEIR.pdf)

In these EIRs, the Commission consistently found that, while MOTEMS compliance and other mitigations reduce the risk, there remains an inherent risk of oil spills at any facility where petroleum product is routinely transferred over water, that can never be fully mitigated. Impacts associated with the potential consequences of a large-volume spill remain significant and unavoidable, even after mitigation. CSLC-8 cont.

Mitigation measures that the Commission has required for consideration of new 30-year leases for all marine oil terminals under its leasing jurisdiction, include Remote Release Systems, Tension Monitoring Systems, and Allision Avoidance Systems. Please see the above referenced EIRs for full details. Staff recommends that the Harbor Department consider the same mitigation measures for this EIR.

Hydrology and Water Quality

8. Please see comment 7 on Hazards and Hazardous Materials above. The operation of a marine oil terminal presents an inherent risk of oil spills at any facility where petroleum product is routinely transferred over water that can never be fully mitigated. The impacts to hydrology and water quality due to oil spills should be fully analyzed in this EIR. CSLC-9

Thank you for the opportunity to comment on the Draft EIR for the Project. As a trustee and regulatory agency, Commission staff requests that you consider our comments prior to certification of the EIR. Please send copies of future Project-related documents, including electronic copies of the certified Final EIR, Mitigation Monitoring and Reporting Program, and Notice of Determination when they become available. CSLC-10

Please refer questions concerning environmental review to Sarah Mongano, Senior Environmental Scientist, at (916) 574-1889 or via email at sarah.mongano@slc.ca.gov. For questions concerning the MOTEMS review, please contact Avinash Nafday, Senior Engineer, Petroleum Structures, at (562) 499-6316 or via email at avinash.nafday@slc.ca.gov.

Sincerely,

For Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
S. Mongano, Commission
A. Nafday, Commission
N. Dobroski, Commission
J. Fabel, Commission

2.2.1.2 California State Lands Commission (CSLC)

Response to Comment CSLC-1

Thank you for your review and comments on the Draft EIR. The commenter has provided an overview of CSLC jurisdiction and the proposed Project and does not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

Response to Comment CSLC-2

Thank you for providing the link to the CSLC's Tesoro Avon EIR. The commenter does not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

Response to Comment CSLC-3

The comment is noted. Section 3.2.4.1 in Section 3.2, Biological Resources of the Draft EIR, provides a description of many of the measures already in place and assumed in the impacts analysis. The assessment of impacts in the Draft EIR was based on the assumption that the construction of the proposed Project would include the requirements associated with: a Section 401 Water Quality Certification for construction activities, including clean up dredging if needed; a Section 10 Rivers and Harbors Act permit for in-water construction activities in waters of the U.S.; water quality monitoring during dredging in compliance with both USACE and RWQCB permit requirements (to protect water quality); and, implementation of a Spill Prevention Control and Countermeasure Plan during construction and operations, which requires that LAHD (during construction) and tenants (during operation) have in place measures that help ensure oil spills do not occur, but, if they do, that there are protocols in place to contain the spill and neutralize the potential harmful impacts. In addition, as is required for the terminal, there are measures within the facility's Emergency Response Action Plan and the Operations Manual to address spills during operations. Specifically, approximately 1,600 feet of Petro Barrier boom, and additional sections of sorbent boom, are stored at Berths 167–169 for rapid deployment by the Oil Spill Removal Organization in the event of a spill. Personnel at the terminal perform drills at varying frequencies, including: Emergency Procedures (quarterly), Deployment of Company-owned Equipment (Semi-Annually), and Deployment of Oil Spill Removal Organization Equipment (Annually) (Shell Oil Products, 2015). In addition, as noted in the Draft EIR (Section 3.4, Hazards, Section 3.4.2.2), the Shell Oil Company has a contract with MSRC and thus meets oil spill response requirements (MSRC has the largest, dedicated, standby oil spill response program in the U.S.). Within the Port Complex, the MRSC equipment available for spill response is summarized in the table below.

MSRC Oil Spill Response Equipment Ports of Los Angeles and Long Beach

Description	Quantity or Length	Location
Booms – various	3,632 ft	Port of Long Beach (Berth 57)
Skimmers (recovery capacity in bbl/day)	4	
Vessels Response boats incl. w/ skimmers & recovery storage Small boat recon boats with booms Small recon boats Shallow water barge	 4 2 4 1	
Booms – various	30,565 ft	Yard and Warehouse, Port of Long Beach
Skimmers (recovery capacity in bbl/day) GT-185 (5,484) GT-185 Skimmers (w/ Adapter) (2,742) Lori Side Collectors (4,954) Lori Bow Collectors (7,431) Kormara K-12 (275)	 4 2 2 3 1	
Dispersants	12,870 gal	Port of Long Beach Berth 85
Booms	7,000 ft	Port of Long Beach Berth 121
Booms	9,484 ft	Terminal Island
Vessels Response boats incl. w/ skimmers & Skimmers	6 1	

Source: MSRC, 2018.
ft = feet

It is not necessary to provide an exhaustive list of every measure that would be associated with the facility or proposed Project (or "… all specific measures already in place …," as requested by the commenter). CEQA does not require a Lead Agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. (State CEQA Guidelines Section 15204.)

CSLC requires booms to be in place and readily available to be deployed in the event of a spill. As discussed on page 3.2-34 of the Draft EIR, if a spill of a petroleum product occurs, the material would likely remain at the surface of the water, whereas the eelgrass grows on the harbor floor, but usually shallower than 15 feet deep. Based on information in the CSLC's database (see Response to Comment CLSC-8, below), large spills are not anticipated as a result of the proposed Project. Therefore, as was detailed Section 3.2, Biological Resources of the Draft EIR, impacts were found to be less than significant.

Response to Comment CSLC-4

Water quality conditions and biological communities in the Port Complex have improved over time, while vessel activity and trans-oceanic shipping have significantly increased. Invasive species are not problematic within the Port Complex despite increased vessel calls. "*The past three harbor-wide studies have not documented severe ecosystem disruption by introduced species; instead, the newcomers appear to have fit into the harbor biological communities, which now consist of a mixture of a few non-native and many native species*" (MBC and Merkel & Associates, 2016).

The 2013–2014 Port-wide biological surveys of hard substrate organisms determined that only 3.2 percent of the species analyzed were non-native. This is compared to 6 percent in 2000 and 3.6 percent in 2008. So, the Port has not seen an increase in non-native species despite additional vessel calls and despite installation of new pilings or repair and replacement in-kind of existing pilings.

Pilings have been considered points of entry for non-native invertebrates in California ports (Marraffini et al., 2017). However, despite installation of new pilings and in-water structures in the Ports, the overall percentage of non-native invertebrate species has not increased with time. In addition, the proposed Project would significantly reduce the number of pilings (from 900 to approximately 120) and significantly reduce the need for repair and replacement in-kind of existing pilings.

The commenter correctly notes that regulations are in place to minimize introduction of non-native species. Section 3.2.3.8 in Section 3.2, Biological Resources of the Draft EIR provides information on ballast water management controls and additional ballast water regulation information is provided below in the Response to Comment CLSC-6. The majority of vessels calling at the terminal for the proposed Project will be unloading, which could require taking on ballast rather than discharging it (see page 3.2-37 of the Draft EIR). The evaluation of potential impacts on biological resources (from invasive species) in Section 3.2 of the Draft EIR considers ballast water management controls, the nature of vessel operations under the proposed Project, and vessel hull coatings. Based on these considerations, the Draft EIR determined that the proposed Project is unlikely to result in a substantial disruption of local biological communities and impacts from the introduction of invasive species would be less than significant.

Response to Comment CSLC-5

The proposed Project includes the removal of approximately 900 creosote-treated timber piles. Once removed, the proposed project includes the installation of multiple steel piles, mooring dolphins, and additional support structures. It is anticipated that the 900 exiting piles would be replaced by a substantially lower number of piles (approximately 120 steel pipe piles). Overall, there will be reduced surface area for establishment of invasive species than under baseline conditions due to the reduction in the pile surface area.

As mentioned in the response to CSLC-4, the 2013–2014 Port-wide biological surveys of hard substrate organisms determined that only 3.2 percent of the species analyzed were non-native. This is compared to 6 percent in 2000 and 3.6 percent in 2008. So, there is no indication that additional vessel calls and/or installation of new pilings has facilitated an increase in the percentage of invasive species at the Port. As also mentioned above, biological surveys have not documented severe ecosystem disruption due to the introduction of non-native species. Pilings have been considered points of entry for non-native invertebrates in California ports (Marraffini et al., 2017). However, despite installation of new pilings and in-water structures in the Ports, the overall percentage of non-native invertebrate species has not increased with time. The Draft EIR determined that construction of the proposed Project is unlikely to introduce or redistribute invasive species, and that related impacts to biological resources would be less than significant.

Response to Comment CSLC-6

CSLC has developed the Marine Invasive Species Program to reduce the risk of aquatic nonindigenous species introductions into California's waters. This goal is accomplished through:

- The development, implementation, and enforcement of innovative vessel biofouling and vessel ballast water management strategies and policies.
- The use of best available technology and peer reviewed science.

- Partnerships with stakeholders to improve awareness of invasive species issues and assess program efficacy.

As mentioned by the commenter, new biofouling management requirements became effective in 2018 for vessels arriving at California ports (Title 2, California Code of Regulations, Section 2298.1 et seq.). New vessels are subject to these requirements upon delivery on or after January 1, 2018, and existing vessels upon completion of the first regularly scheduled out-of-water maintenance on or after January 1, 2018. The new biofouling management requirements require submittal of a Biofouling Management Plan (providing a description of the biofouling management strategy for the vessel), submittal of a Biofouling Record Book (containing details of all inspections and biofouling management measures undertaken on the vessel since the beginning of the most recent scheduled out-of-water maintenance or since delivery into service as a newly constructed vessel if no out-of-water maintenance has yet occurred), biofouling management of wetted surfaces and niche areas (including sea chests and gratings, bow and stern thrusters and gratings, fin stabilizers and recesses, propellers and propeller shafts, and rudders), and prescribe requirements for vessels with extended residency periods. Existing reporting requirements continue to be in effect, including submittal of an Annual Vessel Reporting Form (submitted once annually at least 24 hours in advance of the first arrival of each calendar year) and submittal of a Ballast Water Management Report (all vessels that arrive at California ports must submit the report at least 24 hours to arrival at each port or upon departure from the last port of call prior to arrival if the voyage is less than 24 hours).

A vessel that arrives at a California port is authorized to manage its ballast water using one of the following treatment alternatives:

- United States Coast Guard (USCG) Type Approved Ballast Water Management Systems (BWMS); or
- USCG accepted Alternate Management Systems (AMS).

The use of either a USCG Type Approved BWMS or a USCG accepted AMS is considered an alternative, environmentally sound method of management that has been approved by the CSLC or the USCG as being at least as effective as ballast water exchange, using mid-ocean waters, in removing or killing nonindigenous aquatic species. The USCG has approved six BWMS devices, three other BWMS devices were approved in the past but amendments are pending approval, and eight other BWMS devices are pending approval. The USCG lists 111 AMS devices that have been accepted under the conditions set forth by 33 CFR 151.2026.

California Code of Regulations, Title 2, Section 2284. Ballast Water Management Requirements

(a) The master, operator, or person in charge of a vessel that arrives at a California port or place from another port or place within the Pacific Coast Region shall employ at least one of the following ballast water management practices:

(1) Exchange the vessel's ballast water in near-coastal waters, before entering the waters of the state, if that ballast water has been taken on in a port or place within the Pacific Coast region.

(2) Retain all ballast water on board the vessel.

(3) Use an alternative, environmentally sound method of ballast water management that, before the vessel begins the voyage, has been approved by the commission or the United States Coast Guard as being at least as effective as exchange, using mid-ocean waters, in removing or killing nonindigenous species.

(4) Discharge the ballast water to a reception facility approved by the commission.

(5) Under extraordinary circumstances where compliance with subsections (a)(1) through (a)(4) of this section is not practicable, perform a ballast water exchange within an area agreed to by the commission in consultation with the United States Coast Guard at or before the time of the request.

Regarding subsection (a)(3), the USCG has currently approved six ballast water management systems that meet the requirements in 46 CFR 162.60 (Ballast Water Management Systems). These systems utilize a combination of filtration and one of the following: ultraviolet light, electrodialysis, or chemical injection (USCG, 2017).

United States Coast Guard requirements are outlined in 33 CFR 151 Subpart D – Ballast Water Management for Control of Non-Indigenous Species in Waters of the United States. "In 2016, new compliance dates took effect for regulations that set the implementation schedule for ballast water management discharge standards for both existing and new vessels that use Coast Guard approved Ballast Water Management Systems (BWMS)." [USCG March 1, 2018 Memorandum: Ballast Water Management for Control of Non-Indigenous Species in Waters of the United States].

As noted in the Response to Comment CSLC-4 above, the evaluation of potential impacts on biological resources (from invasive species) in Section 3.2 of the Draft EIR considered ballast water management controls, the nature of vessel operations under the proposed Project, and vessel hull coatings, and determined that impacts from the introduction of invasive species would be less than significant.

Response to Comment CSLC-7

As discussed in Section 3.4.3.4 of the Draft EIR, the speed limit for tank vessels in the Precautionary Area is 12 knots (kts), and between the seaward limits of the tank vessel escort zones and anywhere inside the Federal Breakwater, the speed limits are as follows:

- Less than 60,000 metric tonne displacement - 8.0 kts.
- 60,000 metric tonne displacement, or more - 6.0 kts.

Section 3.2.2.6 of the Draft EIR included language from the National Oceanic and Atmospheric Administration (NOAA) regarding marine mammals and vessel collisions:

NOAA recommends "that ships going slower than 14 knots are less likely to collide with large whales. Therefore, NOAA Fisheries recommends that speed restrictions in the range of 10–13 knots be used, where appropriate, feasible, and effective, in areas, where reduced speed is likely to reduce the risk of ship strikes and facilitate whale avoidance."

Furthermore, the Port of Los Angeles' jurisdiction does not extend beyond the boundary of the Port; therefore, the LAHD does not have legal jurisdiction for vessel speeds outside the Port boundaries.

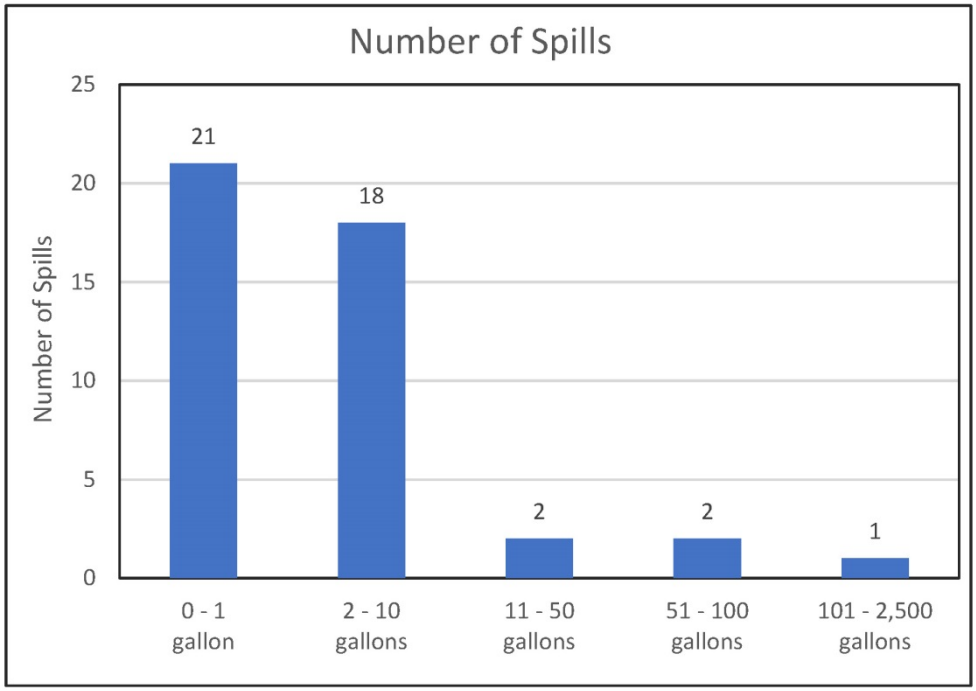
Response to Comment CSLC-8

The comment is noted. The Port appreciates the comment that the Commission has consistently found that MOTEMS compliance reduces risks but that risks can never be fully mitigated. The proposed Project is required in order to bring the existing Shell Marine Oil Terminal into compliance with California's MOTEMS, thereby improving the safety of tanker and barge unloading and loading at the terminal. Timber wharfs will be replaced with non-flammable steel, more seismically sound structures. In addition, the proposed Project would improve terminal safety and further minimize the potential for spills through pipe support improvements on the terminal, as well as SCP improvements that include leak detection systems and installing double bottoms in storage tanks.

The Shell Marine Oil Terminal has been an operating marine oil terminal within the Port of Los Angeles since 1923. Because the existing terminal is currently operating, there is an existing level of risk of upset under CEQA baseline conditions. Section 3.4, Hazards of the Draft EIR, evaluates whether the proposed Project would substantially increase the probable frequency or severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance, relative the baseline conditions, and does not use zero risk as a significance threshold.

The evaluation of operational risks in Section 3.4.4.3 of the Draft EIR (Impact RISK-1) considers the Project related vessel calls, the use of double hull tank vessels, the regulatory framework and navigational procedures (International, Federal, State and Local Regulations) described in Section 3.4.3, Applicable Regulations of the Draft EIR, as well as the safety improvements that would result from MOTEMS compliance under the proposed Project, and determined that Project operations would not substantially increase the probable frequency or severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance, relative to baseline conditions.

Although the Commission, as Lead Agency, found that the effects of a large volume spill would be significant and unavoidable because inherent risks can never be completely eliminated in the Bay Area marine oil terminal EIRs referenced in the comment letter, past spill data (CLSC, 2017) of petroleum products within the Port of LA from 2000 through 2016 show that the majority of spills were small quantities. CSLC has been tracking oil spills from California marine terminals, including tank vessels at the terminals, since 1992. The CSLC database includes spills from all aspects of the marine oil terminal including pipelines, loading houses, sumps, etc., and during all phases of operation including transfer and non-transfer operations. In this period, there were 44 spills within the Port of LA, shown in the figure below. Of the 44 spills, 21 were one gallon or less, 18 were two to 10 gallons, two were 11 to 50 gallons, two were 51 to 100 gallons, and one was 101 to 2,500 gallons. The largest spill was fuel oil and occurred at primarily on land at another marine oil terminal in 2016. There were two spills at the Shell terminal; one was in 2002 and was two gallons of hydraulic fluid, and the other was a spill of three gallons of jet fuel. The data also shows that the majority of spills were of incidental qualities, and none were considered catastrophic. Given the recent requirement for double-hulled tankers (beginning in 2015) and changes in petroleum product handling procedures and vapor control systems, disasters such as tanker explosions, are very unlikely. None have occurred since CSLC began record keeping in 1992. The CEQA documents referenced in the comment letter by CSLC were all certified prior to the double-hulled tanker requirements.



Number of Spills at Port of Los Angeles Marine Oil Terminals - 2000 to 2016 (CSLC, 2017).

The potential for the operation of the proposed Project to substantially increase hazards to people or property through the routine transport of hazardous materials from reasonably foreseeable upset and accident conditions involving the release of hazardous materials is low due to compliance with the numerous existing regulations, requirements, plans, programs, initiatives and safety measures including the MOTEMS safety requirements. In addition to these regulations, other important regulations include, but are not limited to, the requirement for double-hulled tankers and barges beginning in 2015. These regulations are described in more detail below.

All tank vessels are required to have double hulls, which lowers the potential for a spill in the event of an accident. In addition, the existing regulatory framework and navigational procedures would continue to minimize the potential for accidents that could result in a release of product during transport under the proposed Project. For example, the vessel traffic lanes that have been established off the coast of California are separated by a zone where vessel transit is to be avoided, thereby minimizing the potential for collisions between vessels traveling in opposite directions. As tank vessels approach the Port Complex, they leave the established traffic lanes and enter the Precautionary Area, where speed limits are in effect, and as the vessels approach within 2 nm of Point Fermin lower speed limits apply. In addition, Port Pilots would navigate the vessels within the breakwater, and the vessels would be tug assisted. These navigational safety requirements and practices would minimize the potential for collisions, allisions or groundings that could result in a product spill, and double hulled tank vessels would further reduce the potential for a product spill in the event of a vessel accident. Accordingly, although the proposed Project would increase vessel traffic, with the existing navigational safety requirements and practices and the use of double hulled tank vessels, the Project is not expected to substantially increase the likelihood or consequences of a release during navigation.

The purpose of the proposed Project is to increase the safety of product transfer operations at marine oil terminals. The new loading platforms, mooring dolphins, and berthing dolphins would be more capable of withstanding vessel movements and loads, wave action, and seismic events than the existing wharf

configuration. The proposed Project would also replace existing loading hoses, pipelines with modern articulated arms that would reduce the potential for rupture or leakage during product transfer. Because of the navigational safety framework, the use of double-hulled vessels, and the proposed Project's terminal improvements that decrease the potential for spills relative to existing terminal equipment, the Draft EIR determined that risk impacts would be less than significant.

The commenter recommended that the Port consider requiring three mitigation measures that are common to CLSC EIRs for marine oil terminal projects in the San Francisco Bay, Remote Release Systems, Tension Monitoring Systems, and Allision Avoidance Systems. Quick release hooks were previously installed on the Shell Marine Oil Terminal's berthing dolphins, and one of the existing mooring points has an emergency release capability, but not currently configured for remote release. The existing quick release hooks also have a capability for tension monitoring but are not remote. The new mooring dolphins under the proposed Project would be equipped with triple release hooks (POLA, 2013). It should be noted that the marine oil terminal projects referenced in the comment letter are located in a high-velocity current area, which was a key consideration in requiring the above three mitigation measures. However, the Project site is not located in a high-velocity current area. Appendix A3 (Dynamic Mooring Analysis) of the MOTEMS Audit for the proposed Project (DMJM Harris/AECOM, 2008) states that currents rarely exceed 1 knot in the Port of Los Angeles, and currents at the site are driven by tides and will generally be fairly small. It should also be noted that Section 3.4.4.3 of the Draft EIR did not identify a significant risk impact that requires mitigation.

Response to Comment CSLC-9

The comments are noted. The likelihood of a Project-related spill at the terminal is addressed in Section 3.4, Hazards of the Draft EIR. The section concluded that:

- Spills in the Harbor are classified as infrequent and minor;
- Measures are in place to minimize the possibility of future spills, including the use double-hull tank vessels; and,
- The improvements incorporated into proposed Project would increase the safety of marine terminal operations, including loading and unloading of vessels.

Regarding water quality, in the 1940s and 1950s, water quality within the Port Complex was poor due to pollution. Dissolved oxygen was depleted, particularly in inner harbor areas, and water contact at the time was associated with human health effects. Low water quality affected biological communities, and some areas of the harbor were devoid of observable life. Beginning in the late 1960s, establishment and compliance with environmental regulations led to pollution abatement, and this was followed by colonization of harbor habitats. Since that time continued improvements in water and sediment quality have been observed from cessation of discharges, dredging contaminated sediments, and implementation of BMPs (MEC and Associates, 2002). This trend toward improvements in water and sediment quality within the Port has occurred even with the increases in vessel traffic. Based on this trend and the analysis in the Notice of Preparation (NOP) and Revised NOP (Checklist Item IX, Hydrology and Water Quality), which includes compliance with all applicable regulations, potential impacts to hydrology and water quality from the proposed Project is less than significant and this issue was not addressed further in the EIR. In addition, similar to the baseline information discussed in the Response to Comment CLSC-8, there is a baseline level of risk of a product spill at the existing terminal, and the risk of substantially increasing that level of risk was determined to be less than significant in the Draft EIR. Given the improvements in water quality within the Harbor outlined above, with the CLSC spill data indicating that spill frequencies are decreasing, spill sizes are not major, the existing navigational safety framework, the regulations in place to respond to and clean up spills (if they occur), and considering the MOTEMS upgrades that would increase the safety of

marine terminal operations relative to baseline conditions, potential impacts to water quality is not likely to be substantial, should a spill occur, and the impacts would be less than significant.

Further, as addressed in Section 3.2, Biological Resources of the Draft EIR, under Impact BIO-3 (beginning on page 3.2-35), if an incidental product spill occurs at the terminal or Vessel Traffic Service Area, a temporary and localized impact to water quality could occur, which could in turn affect biological communities. The materials handled at the Shell Marine Oil Terminal are relatively light (relative to the density of water); therefore, an incidental spill would be more likely to affect the immediate water surface than the seafloor. As also addressed in the Draft EIR (Section 3.2), under Impact BIO-1 (beginning page 3.2-28), discharges due to spills and leaks, would be limited in size and have a low likelihood due to existing spill prevention and clean-up regulations and standard controls; therefore, potential impacts on local biological communities would be less than significant.

Response to Comment CSLC-10

Thank you for your review and comments on the Draft EIR. As requested, a copy of the Final EIR will be provided. Your comments will be included in the Final EIR presented for review and consideration by the Board of Harbor Commissioners (the Port's decision-making body).

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

May 8, 2018

Erin Sheehy
Port of Los Angeles
425 South Palos Verdes Street
San Pedro, CA 90731

Subject: Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project
SCH#: 2015061102

Dear Erin Sheehy:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on May 7, 2018, and no state agencies submitted comments by that date. 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 call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

SCH-1

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
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SCH

Document Details Report
State Clearinghouse Data Base

SCH# 2015061102
Project Title Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project
Lead Agency Los Angeles, Port of

Type EIR Draft EIR

Description The proposed Project consists of various wharf improvements to Shell Oil Company's marine oil terminal at Berths 167-169 on Mormon Island, in order to comply with MOTEMS. In general, the proposed Project would demolish the existing timber wharf and replace the structure with new loading platforms, topside equipment, access trestles (to the platforms), mooring dolphins and catwalks; and pipeline and pipeline support improvements along the terminal. The proposed project also includes implementation of a source control program to minimize the potential for petroleum product releases to the environment, and a new lease for a total of 30 years.

Lead Agency Contact

Name Erin Sheehy
Agency Port of Los Angeles
Phone 310-732-7693 **Fax**
email
Address 425 South Palos Verdes Street
City San Pedro **State** CA **Zip** 90731

Project Location

County Los Angeles
City
Region
Lat / Long
Cross Streets Falcon Street & San Clemente Avenue: Bounded by East Channel and Turning Basin;
Parcel No. 7440019908
Township **Range** **Section** **Base**

SCH-1 cont.

Proximity to:

Highways SR 47
Airports
Railways
Waterways Main Channel
Schools Port of LA HS, Hawaiian
Land Use Liquid Bulk / [Q]M3-1 / Liquid Bulk

Project Issues Air Quality; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish and Wildlife, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 7; Regional Water Quality Control Board, Region 4; Native American Heritage Commission; Public Utilities Commission; Santa Monica Bay Restoration

Date Received 03/23/2018 **Start of Review** 03/23/2018 **End of Review** 05/07/2018

Note: Blanks in data fields result from insufficient information provided by lead agency.

2.2.1.3 State of California Office of Planning and Research, State Clearinghouse (SCH)

Response to Comment SCH-1

Thank you for your confirmation letter acknowledging the state environmental review process information (e.g., official review period and document details report). The letter does not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

2.2.2 Regional and Local Government Comments

FORM GEN. 160 (Rev. 8-12)

LASAN

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

DATE: March 29, 2018

TO: Christopher Cannon, Director of Environmental Management
Los Angeles Harbor Department

FROM: Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation

SUBJECT: **BERTHS 167-169 [SHELL] MARINE OIL TERMINAL WHARF IMPROVEMENTS PROJECT (SCH# 2015061102) - NOTICE OF AVAILABITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT**

This is in response to your March 23, 2018 Notice of Availability of a draft Environmental Impact Report for Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project. LA Sanitation, Wastewater Engineering Services Division has received and logged the notification. Upon review, it has been determined that the project is unrelated to wastewater conveyance and does not require any hydraulic analysis. Please notify our office in the instance that additional environmental review is necessary for this project. LASAN-1

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org

CD/AP: al

c: Kosta Kaporis, LASAN
Christopher DeMonbrun, LASAN

File Location: CEQA Review\FINAL CEQA Response LTRs\FINAL DRAFT\Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project - NOA of dEIR.doc

2.2.2.1 City of Los Angeles, Wastewater Engineering Services Division, LA Sanitation (LASAN)

Response to Comment LASAN-1

Thank you for your comment. The LAHD acknowledge LASAN's review and that no comments are provided; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS: May 8, 2018

ceqacomments@portla.org
Erin Sheehy, Project Manager
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes Street
San Pedro, CA 90731

Draft Environmental Impact Report (EIR) for the Proposed Berths 167-169 Shell Marine Oil Terminal Wharf Improvements Project (SCH No.: 2015061102)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comment is meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

SCAQMD Staff's Summary of Project Description

The Proposed Project consists of various improvements to the existing Berths 167-169 to comply with Chapter 31 of the State Building Code Marine Oil Terminal Engineering & Maintenance Standards (MOTEMS), as well as to maintain the Port of Los Angeles' (Port) ability to accommodate long-term fuel imports for the southern California market (Proposed Project). The Proposed Project would include seismic and ground improvements, piping improvements, foundation support structures, wharf demolition and replacement, construction of two mooring dolphins and steel catwalks, replacement of topside equipment, operation of a vapor control system, development of a source control program plan, and execution of a new 30-year lease to 2048[1]. Construction is expected to begin in 2018 and would likely take approximately six years[2].

SCAQMD Staff's Summary of Air Quality and Health Risk Assessment (HRA) Analyses

SCAQMD-1

The Lead Agency quantified the Proposed Project's construction and operational emissions and compared them to SCAQMD air quality CEQA significance thresholds. The CEQA baseline was based on the average conditions that occurred from calendar year 2011 through calendar year 2015 (2011-2015 CEQA baseline year) due to fluctuating throughput during the past several years leading up to calendar year 2015 when the Notice of Preparation for the Proposed Project was circulated[3]. The Lead Agency found that the Proposed Project's construction emissions would be significant and unavoidable for NOx in construction year three[4], after incorporating Mitigation Measures AQ-1 through AQ-4. Mitigated overlapping construction and operation emissions would be significant and unavoidable for NOx, PM2.5, and VOC. The Proposed Project's operational air quality impacts were also found to be significant and unavoidable for NOx and VOC in year 2019, year 2031, and year 2048, after incorporating Mitigation Measure AQ-5. Additionally, the Lead Agency proposed two Lease Measures (LM AQ-1 and LM AQ-2) to further reduce criteria pollutant emissions over time. Due to the uncertainties with the future technologies, the proposed Lease Measures were not quantified in the air quality analysis[5]. Lastly, the Lead Agency conducted a

[1] Draft EIR. Executive Summary. Pages ES-9 to 10.
[2] Draft EIR. Section 3.1, *Air Quality and Meteorology*. Table 3.1-11. Note 8. Page 3.1-43.
[3] Draft EIR. Executive Summary. Pages ES-5 to 6.
[4] Draft EIR. Section 3.1. Table 3.1-13. Note 8. Page 3.1-46.
[5] Draft EIR. Section 3.1. Page 3.1-58 through 61.

HRA analysis and found that the Proposed Project's individual cancer risk for residential receptors would be 3.4 in a million, which is below SCAQMD threshold of significance for cancer risk of 10 in a million[6].

General Comments

The Proposed Project plays an important role in supporting the Port's commitment to a zero-emissions goods movement future as outlined in the final San Pedro Bay Ports Clean Air Action Plan 2017 Update (2017 CAAP Update)[7]. The Proposed Project is also critical to achieving timely attainment of the National Ambient Air Quality Standard (NAAQS). On March 3, 2017, the SCAQMD's Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP)[8], which was later approved by the California Air Resources Board of Directors on March 23, 2017. Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the South Coast Air Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NOx) emissions in 2023 and an additional 55 percent NOx reduction beyond 2031 levels for ozone attainment. **SCAQMD-1 cont.**

SCAQMD staff reviewed the Air Quality Analysis and has comments on the CEQA baseline that was used to quantify the Proposed Project's operational emissions. SCAQMD staff also has comments on the air dispersion modeling and the methodology used to determine the Proposed Project's morbidity and mortality impacts. To further reduce NOx emissions, SCAQMD staff recommends revisions to existing Mitigation Measures AQ-1 and AQ-2 and provides additional considerations to Lease Measures AQ-1 and AQ-2 that the Lead Agency should incorporate in the Final EIR. Details are included in the attachment.

Closing

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), SCAQMD staff requests that the Lead Agency provide SCAQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful or useful to decision makers and to the public who are interested in the Proposed Project. **SCAQMD-2**

SCAQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact me at lsun@aqmd.gov if you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

Attachment
LS/SW
LAC180323-03
Control Number

[6] Draft EIR. Section 3.1. Page 3.1-66.

[7] San Pedro Bay Ports. November 2017. *Final Clean Air Action Plan 2017*. Accessed at: http://www.cleanairactionplan.org/documents/final-2017-clean-air-action-plan-update.pdf.

[8] South Coast Air Quality Management District. March 3, 2017. *2016 Air Quality Management Plan*. Accessed at: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan.

ATTACHMENT

CEQA Baseline

1. The Proposed Project's peak daily operational emissions were estimated for the 2011-2015 CEQA baseline year, year 2019, year 2031, and year 2048[9]. The "existing" conditions were based on the average conditions between year 2011 to year 2015. The existing conditions were held constant (i.e. using the emission rates from the 2011-2015 averaged conditions) and were compared to future years (i.e. using emission rates from future years). This approach using a comparison between the Proposed Project's impacts in future years (using emission rates from those years) and a 2011-2015 CEQA baseline improperly credits the Proposed Project with emission reductions that will occur independent of the Proposed Project due to adopted state and federal rules and regulations, since these rules and regulations are expected to improve air quality, even in the absence of the Proposed Project. For example, the California Air Resources Board's (CARB) current regulations for ocean-going vessels and tugboats, for example, are expected to provide substantial near-term and long-term emissions reductions. The strategies for ocean-going vessels, barges, terminal equipment, and harbor craft such as tugboats as outlined in the 2017 CAAP Update[10] are also expected to reduce emissions over time. Therefore, comparing the Proposed Project's future operational emissions to the 2011-2015 CEQA baseline to quantify the Proposed Project's long-term operational air quality impacts may have led to an under-estimation of the Proposed Project's true air quality impacts.

   In *Neighbors for Smart Rail v. Exposition Metro Line Construction (2013) 57 Cal.4th 439*, the California Supreme Court held that using a future baseline to determine impact levels is proper in some cases. "[N]othing in CEQA law precludes an agency … from considering both types of baseline—existing and future conditions—in its primary analysis of the project's significant adverse effects." (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 454.). "Even when a project is intended and expected to improve conditions in the long term--20 or 30 years after an EIR is prepared--decision makers and members of the public are entitled under CEQA to know the short- and medium-term environmental costs of achieving that desirable improvement. … [¶] … The public and decision makers are entitled to the most accurate information on project impacts practically possible, and the choice of a baseline must reflect that goal." (See also *Communities for a Better Environment v. South Coast Air Quality Management Dist*. (2010) 48 Cal.4th 310). SCAQMD-3

   The purpose of CEQA is to disclose environmental impacts from the Proposed Project to the public and decision makers in order to provide the public and decision makers with the actual changes to the environment from the activities involved in the Proposed Project. By taking credit for future emission reductions from existing air quality rules, regulations, and emissions reductions strategies, the Proposed Project's air quality impacts are likely underestimated. Therefore, SCAQMD staff recommends that the Lead Agency revise the operational air quality impact analysis to include a comparison between the operational emissions in year 2019, year 2031, and year 2048 with the Proposed Project and the operational emissions in the same respective years without the Proposed Project, and use this comparison to determine the level of significance for the Proposed Project's operational air quality impacts.

[9] Draft EIR. Table 3.1-21. Pages 3.1-56 and 57.

[10] San Pedro Bay Ports. *Final Clean Air Action Plan 2017*. Accessed at: http://www.cleanairactionplan.org/documents/final-2017-clean-air-action-plan-update.pdf.

Air Quality Analysis

SCAQMD Thresholds of Significance for Overlapping Construction and Operational Activities

2. In Table 3.1-14, the peak daily emissions during the overlapping construction and operational activities were combined and compared to SCAQMD air quality CEQA significance thresholds for construction. According to the SCAQMD's recommended methodology for determining the significance level for air quality impacts from overlapping construction and operational activities, the combined emissions should be compared to SCAQMD's air quality CEQA *operational* thresholds of significance. While revising the Air Quality Analysis based on this comment is not expected to change the significance determination for the overlapping construction and operational air quality impacts, SCAQMD staff recommends that the Lead Agency revise the information in the "significance threshold" row in Table 3.1-14 in the Final EIR. SCAQMD-4

Morbidity and Mortality Impacts

3. Mortality is a measure of the number of deaths in a population, scaled to the size of that population, per unit time. Morbidity refers to the number of individuals who have contracted a disease during a given time period (the incidence rate) or the number who currently have that disease (the prevalence rate), scaled to the size of the population. The Lead Agency stated that it had "developed a methodology for assessing mortality and morbidity in CEQA documents based on the health effects associated with changes in PM2.5 concentrations, which generally follows the approach used by CARB to estimate statewide health impacts from ports and goods movement in California (CARB, 2006b)"[11]. Based on the morbidity and mortality analysis, the Lead Agency used SCAQMD's PM2.5 localized significance criterion of 2.5 µg/m^3 and did not conduct a morbidity and mortality analysis. The Lead Agency found the Proposed Project would not exceed SCAQMD's PM2.5 localized significance criterion[12]. SCAQMD-5

   SCAQMD staff does not agree with using SCAQMD's localized PM2.5 threshold as a screening threshold for determining the significance of morbidity and mortality impacts. The SCAQMD's PM2.5 significance threshold of 2.5 µg/m^3 is designed to determine the significance of localized impacts on nearby sensitive receptors to ensure that sensitive receptors near a project are not adversely impacted by the project's construction and/or operational activities, and it was made to be consistent with existing permitting requirements under SCAQMD Rule 1303. As such, the PM2.5 significance threshold of 2.5 µg/m^3 was not intended to be used as a screening tool to determine if mortality and morbidity impacts analysis would be warranted. SCAQMD staff recommends that the Lead Agency revise the PM mortality analysis and use the methods described in California Air Resources Board's 2010 guidance document[13]. In addition, the analysis in the Draft EIR did not include a reference to the LAHD's methodology that was used for assessing mortality and morbidity attributable to particulate matter. As such, SCAQMD staff recommends providing a reference to the LAHD's methodology in the Final EIR.

Air Dispersion Modeling

4. The September 2006 to August 2007 meteorological data from the Wilmington Community Station – Saints Peter and Paul School (SPPS) was used in the air dispersion model for both the criteria

[11] Draft EIR. Section 3.1. Pages 3.1-24 and 36.
[12] *Ibid*. Pages 3.1-65 and 66.
[13] California Air Resources Board. August 31, 2010. *Estimate Premature Deaths Associated with Long-term Exposure to Fine Particle Pollution (PM2.5) in California Using a U.S. Environmental Protection Agency Methodology*. Accessed at: https://www.arb.ca.gov/research/health/pm-mort/pm-report_2010.pdf. SCAQMD-6

pollutants and TACs[14]. The U.S. EPA recommends five years of meteorological data, or at least one year of site-specific data or at least three years of prognostic meteorological data for the purposes of air dispersion modeling[15]. If one year or more, up to five years, of site-specific data are available, these data are preferred for use in air quality analyses. Depending on completeness of the data record, consecutive years of national weather service, site-specific, or prognostic data are preferred[16]. The one-year, site-specific meteorological data used for the Proposed Project was processed in 2013 using the U.S. EPA approved AERMET (version 12345)[17]. However, since AERMET (version 12345), four AERMET versions have been released[18]. On December 20, 2016, U.S. EPA released AERMET version 16216 for meteorological data processing along with updated Appendix W to fix several known bugs and enhance model prediction. As of April 20, 2018, AERMET version 16216 is still the most recent version. While site-specific meteorological data may be used with the concurrence from SCAQMD staff, the meteorological data used in the Draft EIR does not appear to have been reviewed or validated by SCAQMD staff. Therefore, SCAQMD staff recommends that the Lead Agency provide SCAQMD staff the meteorological data information for validation to ensure that the meteorological data was properly collected and processed in accordance with the applicable SCAQMD procedures. Alternatively, SCAQMD staff has prepared AERMOD-ready meteorological data which could be used by the Lead Agency in the air quality analysis. The AERMOD-ready meteorological data is available for download at the SCAQMD's website[19].

SCAQMD-6 cont.

5. Based on a review of Round 1 and Round 2 model runs and the final modeling results in the Draft EIR, SCAQMD staff found that scaling factors were used and that different AERMOD and HARP2 model versions were used. For example, AERMOD version 15181 and HARP2 version 17023 were used in Round 1 model run while AERMOD version 16216r and HARP2 version 17314 were used in Round 2. The final modeling results were the combination of the scaled Round 1 modeling results and Round 2 modeling results from vapor destruction unit. The scaling factors were calculated solely based on the emission increases from the vessel activities.

   SCAQMD staff has concerns about this methodology that was used to estimate the Proposed Project's operational air quality impacts for the following three reasons. First, some scaling factors in the "*Scaling Factor*" spreadsheet appeared to be higher than the scaling factors used in calculating the final modeling results. Therefore, it is not clear why those higher scaling factors, which, if used, would lead to a more conservative analysis, were not used. Second, the scaling factors were applied to Round 1 modeling exercise to estimate the ***total*** emissions as part of the final modeling results in Draft EIR. There were approximately 1,000 emission sources in the model. Since different emission sources may show different magnitude of changes in emissions (some may increase and some may decrease), a uniform, scaled change in the ***total*** emissions did not show the actual changes in emissions at the individual emission sources, particularly those that are close to receptors. This may potentially cause an under-estimation of ground level concentrations or risk exposures. Therefore, applying a scaling factor to estimate the total emissions may have over-simplified the Air Quality and HRA analyses and underestimated the Proposed Project's operational air quality impacts and health

SCAQMD-7

[14] Draft EIR. Appendix B2, *Air Dispersion Modeling*. March 2018. Page B2-14.
[15] United States Environmental Protection Agency. February 2000. *Meteorological Monitoring Guidance for Regulatory Modeling Applications*. Page 6-30. Accessed at: https://www3.epa.gov/scram001/guidance/met/mmgrma.pdf. See also 40 CFR Part 51. *Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter*. Final Rule. January 17, 2017. Accessed at: https://www3.epa.gov/ttn/scram/appendix_w/2016/AppendixW_2017.pdf.
[16] *Ibid*.
[17] Draft EIR. Appendix B2, Air Dispersion *Modeling*. March 2018. Page B2-14.
[18] United States Environmental Protection Agency. *Meteorological Processors and Accessory Programs*. Accessed at: https://www.epa.gov/scram/meteorological-processors-and-accessory-programs.
[19] South Coast Air Quality Management District. Meteorological Data for AERMOD. Accessed at: http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data.

risks. Third, as stated above, the final modeling results were derived from the modeling results from two model runs (e.g., Round 1 and Round 2), and the two model runs used different model versions. While it was reasonable that Round 1 model run used the older versions of AERMOD and HARP2, the modeling results from Round 1 may not have incorporated the model enhancements in the newer versions of AERMOD and HARP2 which were used to run Round 2. To ensure consistency among model runs and improve reliability of the final modeling results, it is recommended that the Lead Agency re-model the Proposed Project's operational emissions using AERMOD version 16216r and HARP2 version 17314. That way, there will be one model run with one single set of final modeling results without using any scaling factors. SCAQMD-7 cont.

Recommended Changes to Existing Mitigation Measures AQ-1 and AQ-2

6. CEQA requires that the Lead Agency considers mitigation measures to minimize significant adverse impacts pursuant to CEQA Guidelines Section 15126.4 and that all feasible mitigation measures that go beyond what is required by law be utilized. To further reduce the significant and adverse NOx emissions during construction, SCAQMD staff recommends that the Lead Agency incorporate the following changes to Mitigation Measures AQ-1 and AQ-2.

MM AQ-1: Fleet Modernization for Harbor Craft Used During Construction. Harbor craft must use U.S. Environmental Protection Agency (EPA) Tier ~~3~~ 4 or cleaner engines. In the event that Tier 4 engines are not feasible, the Lead Agency must use U.S. EPA Tier 3 engines and provide information on incentives that the Lead Agency will use to upgrade to Tier 4 or cleaner engines. SCAQMD-8

This recommended change is consistent with and will further the Ports' strategies to reduce harbor craft emissions and fuel consumption as outlined in the 2017 CAAP Update[20].

MM AQ-2: Fleet Modernization for On-Road Trucks Used During Construction. Trucks with Gross Vehicle Weight Rating of ~~19,500~~ 14,000 pounds (lbs) or greater[21], including import haulers and earth movers, must comply with EPA 2010 on-road emission standards or newer engines. Additionally, consider other measures such as incentives, phase-in schedules for zero and near-zero emission trucks.

Additional Consideration for Lease Measures AQ-1 and AQ-2

7. To further reduce criteria pollutant emissions, the Lead Agency proposed two Lease Measures. Due to the uncertainties associated with the future technologies, the Lease Measures were not included in calculating the Proposed Project's operational emissions[22]. SCAQMD staff's comments on the Lease Measures are discussed below.

Lease Measure AQ-1

a) Lease Measure AQ-1 requires periodic review of new technology and regulations once every five years following the effective date of the permit.

Technology is transforming the goods movement industry at a rapid pace. As it continues to advance, the Lead Agency should take this opportunity to develop a pathway to ensure the deployment of the lowest emission technologies possible in the life of the Proposed Project. To facilitate the deployment with the most updated information on technology, SCAQMD staff SCAQMD-9

[20] San Pedro Bay Ports. *Final Clean Air Action Plan 2017*. Section 1.8: *Harbor Craft*. Page 72. Accessed at: http://www.cleanairactionplan.org/documents/final-2017-clean-air-action-plan-update.pdf.
[21] California Air Resources Board. November 13, 2014. Accessed at: https://www.arb.ca.gov/msprog/onrdiesel/documents/multirule.pdf.
[22] Draft EIR. Table 3.1-21. Pages 3.1-58 and 59.

recommends that the Lead Agency assess equipment availability, equipment fleet mixtures, and best available emissions control devices *every two to five years* beginning two years after the Proposed Project is approved, and specify performance standards for the technology assessment. A frequent and regular technology and regulations review, based on a well-designed review process that identifies key participants, performance standards, and timelines, helps facilitate and expedite a zero-emissions goods movement future as envisioned in the 2017 CAAP Update.

SCAQMD-9 cont.

Lease Measure AQ-2

b) Lease Measure AQ-2 requires the tenant to conduct a feasibility study, develop at-berth vessel emissions capture and control system pilot study, if it is found to be feasible, and implement the control systems based on the results identified in the pilot study.

SCAQMD staff supports the development and implementation of control systems to further reduce criteria pollutant emissions and encourages the Lead Agency to involve the public and interested agencies such as the SCAQMD and the CARB in developing the at-berth vessel emissions capture and control system pilot study.

2.2.2.2 South Coast Air Quality Management District (SCAQMD)

Response to Comment SCAQMD-1

The comment is noted. The comment summarizes the conclusions of the Draft EIR with respect to air quality impacts and does not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

Response to Comment SCAQMD-2

The comment is noted. Responses to SCAQMD's comments are provided in this Final EIR. As required by law, LAHD will be providing all commenters with written responses prior to the certification of the Final EIR.

Response to Comment SCAQMD-3

The comment is noted. The commenter contends that a comparison between the proposed Project's emissions in future years (using emission rates from those years) and the existing conditions baseline improperly credits the proposed Project with emission reductions that will occur independent of the proposed Project due to adopted state and federal rules and regulations, since these rules and regulations are expected to improve air quality, even in the absence of the proposed Project. The commenter recommended revising the operational air quality impact analysis to include a comparison between the operational emissions in years 2019, 2031, and 2048 with the Proposed Project and the operational emissions in the same respective years without the Proposed Project and use this comparison to determine the level of significance for the Proposed Project's operational air quality impacts.

The CEQA analysis of air quality impacts in the Draft EIR is based on a comparison of future proposed Project emissions to existing conditions baseline emissions. This approach is consistent with CEQA Guidelines Section 15125(a), which states that the environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. Section 15125(a) also provides that the existing conditions are normally described as they exist at the time the NOP is published. Other courts have also recognized the discretion of lead agencies to determine the baseline. (See *Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal.4th 310, 320-322* [also reasoning that "the baseline for an agency's primary environmental analysis under CEQA must ordinarily be the actually existing physical conditions"].) Therefore, for purposes of this Draft EIR, LAHD selected a 5-year average for the existing condition baseline. This was to account for year-to-year fluctuations in terminal throughput due to supply and demand changes for petroleum products and other unforeseen business changes such as refinery restrictions. The 5-year average is from January 2011 through December 2015, the five most recent calendar years preceding the revised NOP publication date of April 2016.

Furthermore, LAHD properly used the existing conditions baseline in the Draft EIR because, in part, the analysis is based on a comparison of the baseline with proposed Project emissions at several discrete points in time (i.e., analysis years) over the proposed Project lifetime. This approach is consistent with *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (2013) 57 Cal.4th 439*. In that case, the Court held that the lead agency erred because there was not sufficient justification in the administrative record of its decision to use only a baseline of conditions projected to exist in the year 2030.

Finally, the commenter will recall that the terminal would cease operation by the year 2023 under the No Project Alternative (Alternative 1). The future use of the existing terminal after 2023, if any, was not

considered in the Draft EIR. Therefore, basing a significance determination on a comparison of proposed Project emissions to No Project emissions in analysis years 2031 and 2048 would not be possible as the terminal (under the No Project Alternative) would no longer exist in those years. This lends further support to LAHD's decision to use an existing conditions baseline instead of a future no-project baseline.

Response to Comment SCAQMD-4

The Draft EIR compared peak daily emissions to the SCAQMD Air Quality Significance Thresholds (http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf). The thresholds are separate for construction and operation, but they do not specifically address the overlapping construction and operation period. Therefore, the Port, as lead agency, applied the thresholds to the overlapping construction and operation period in the way it believes is the most logical. Specifically, the Port used the construction thresholds when assessing overlapping construction and operation activities because the impacts would occur during the construction period, prior to operation of the Project in its proposed configuration as described in the Draft EIR. The construction thresholds are less stringent than the operational thresholds for certain pollutants (NOx and VOC) because construction impacts are, by nature, temporary. The Port believes it would not be appropriate to use the operational impacts for the overlapping construction and operation period because (a) the overlapping period is temporary; (b) the overlapping period includes construction, which is entitled to use the construction thresholds; and (c) it is not reasonable to apply the operational thresholds to terminal operations during the construction period because the terminal would not yet be operating as proposed in the EIR.

Response to Comment SCAQMD-5

The comment is noted. Neither CARB nor SCAQMD have established thresholds for triggering the quantification of project-level $PM_{2.5}$ mortality and morbidity or determining the significance of quantified mortality and morbidity in a CEQA document. In its response to the NOP of the Draft EIR (dated July 9, 2015), SCAQMD did not reference any requirement for conducting a mortality and morbidity analysis for the proposed Project nor provide any suggestion as to how such an analysis would be undertaken (CARB did not respond to the NOP). Moreover, CARB's latest 2010 document, which estimates premature deaths associated with $PM_{2.5}$, does not provide any guidance as to whether such an analysis should be prepared for a project-level CEQA assessment, nor does it explain how such an analysis would be conducted. In the absence of any guidance, the Port followed its methodology, described in Section 3.1, Air Quality and Meteorology, on pages 3.1-36 and 37 of the Draft EIR, as summarized in the following paragraph.

> Mortality and morbidity studies examining health effects of exposure to fine particulate matter have been used by the USEPA and CARB to set the NAAQS and CAAQS, respectively, and by SCAQMD to set the CEQA significant concentration thresholds for particulate matter. For this reason, a comparison of the Project's modeled $PM_{2.5}$ concentrations to the SCAQMD's CEQA significance threshold for $PM_{2.5}$, which is more stringent than the NAAQS and CAAQS, implicitly accounts for mortality and morbidity effects on sensitive receptors. Therefore, if project impacts were found to be greater than the SCAQMD's CEQA significance threshold for $PM_{2.5}$ concentrations at residential receptors, the estimate of mortality and morbidity in the areas above the threshold would be conducted to better describe the effect of the significant impact.

To determine whether a detailed mortality and morbidity analysis was necessary for the proposed Project, the Port compared the ambient $PM_{2.5}$ impacts predicted for proposed Project operation to the 2.5 $\mu g/m^3$ 24-hour threshold set by SCAQMD. The impacts are shown in Table 3.1-24 in Section 3.1 of the Draft EIR. The maximum $PM_{2.5}$ impact of 0.2 $\mu g/m^3$ is only eight (8) percent of the SCAQMD significance threshold of 2.5 $\mu g/m^3$. Therefore, no substantial project-level mortality or morbidity effects are expected, and quantification of mortality and morbidity is not warranted.

Response to Comment SCAQMD-6

The comment is noted. While we appreciate the SCAQMD's offer to utilize its meteorological station data from Long Beach, the Port of Los Angeles believes that our on-site meteorological data is more representative of conditions at our project sites. SCAQMD reviewed and approved the data set selection and AERMET processing methodology for the 2006-2007 met data that was used in the Draft EIR. The Port of Los Angeles has continued to use its meteorological data for this same period (2006-2007) since 2008. With respect to the comment about using a prior version of AERMET to process the data, USEPA performs sensitivity analyses that compare results using various model updates. Past analysis showed a difference in results of between 0 and 0.5 percent (USEPA, 2018) between the AERMET version used in the Port's meteorological data and the current AERMET version. Additional, detailed information is available below that addresses (a) SCAQMD's approval of the Port's meteorological data, (b) the representativeness of the selected meteorological data station, (c) an overview of the data processing methodology, (d) a justification for use of the 2006-2007 time period, and (e) a demonstration that subsequent versions of AERMET since the time the meteorological data were processed would not substantially effect dispersion modeling results for the proposed Project.

The SCAQMD reviewed and approved the meteorological data set selection and AERMET processing methodology for the 2006–2007 meteorological data that were used in the Draft EIR. The review and approval took place in 2007 during development of the Bay-Wide Regional Human Health Risk Assessment, which was part of the technical analysis supporting the San Pedro Bay CAAP. The protocol that was reviewed and approved by the SCAQMD is titled "Protocol Bay-Wide Regional Human Health Risk Assessment for Diesel Exhaust Particulate Matter (DPM)" (December 14, 2009) and is located in Appendix B3 of the CAAP 2010 Update.

The Wilmington Community Station at Saints Peter and Paul School (SPPS) was the preferred site for meteorological data for this Draft EIR because it is part of the Port's site-specific monitoring network and is located about 1.5 miles north of the Shell Marine Oil Terminal. It is the most representative meteorological station for the terminal in accordance with the "Sphere of Influence" analysis conducted by the Ports of Los Angeles and Long Beach (the "Port Complex") in 2010 (POLA and POLB, 2010). The Port appreciates the offer to use AERMOD-ready meteorological data processed by the SCAQMD. However, since these data were farther away from the Port area, they are not as representative of conditions within the project region as the Port's data.

The 2006–2007 meteorological data from the Wilmington Community Station (and other Port Complex stations) were first processed in 2008 in accordance with the SCAQMD-approved modeling protocol, except that necessary updates to the methodology were made as recommended by the 2008 EPA AERMOD Implementation Guide. These necessary updates focused on methodology used to determine surface characteristics (i.e., Bowen ratio, Albedo, and Surface Roughness). A more recent AERMOD Implementation Guide was published in March 2009, but no changes were made to the meteorological data processing procedure. The meteorological data were then used in multiple Port EIRs prepared by the Ports of Los Angeles and Long Beach. The processed AERMOD-ready datasets were also sent to SCAQMD in April 2010. In 2013, the 2006–2007 data were reprocessed using the most recent EPA AERMET version 12345 and AERSURFACE version 13016. Month-to-season allocation and the land use sector were defined following the Bay-wide health risk assessment modeling protocol. The precipitation condition (i.e., wet, dry, or average) used to estimate Bowen Ratio was determined in comparison to the 30-year historical data at representative stations as dictated by the Bay-wide health risk assessment modeling protocol.

The meteorological data used in the air dispersion modeling analyses were recorded from September 2006 through August 2007, the first complete 12-month period recorded at all six of the site-specific monitoring stations operated by the Ports of Los Angeles and Long Beach. As discussed in Section 1.5.3 of Appendix

B2 of the Draft EIR, a comparison of this time period with the 2009 to 2012 data period showed that the 2006-2007 data period represents typical conditions in the project region and therefore requires no updating to a newer period of record. Furthermore, the use of one year of meteorological data is consistent with USEPA guidelines, which state that "at least one year of site-specific" data are required (USEPA, 2017).

The project air dispersion modeling analyses in the Draft EIR were performed with the most recent versions of AERMOD at the time the modeling was conducted (version 15181, released June 30, 2015 and version 16216r, released January 17, 2017), but the meteorological data used in the analyses were processed with AERMET version 12345 (released December 11, 2012). At the time of the analysis, the USEPA had updated AERMET four times since version 12345: (1) version 13350 (released December 16, 2013); (2) version 14134 (released May 14, 2014); (3) version 15181 (released June 30, 2015); and version 16216 (the current version, released August 3, 2016).

As part of its ongoing documentation of AERMOD and AERMET, the USEPA performs sensitivity analyses that compare model updates to past model versions to enable users to understand the effects of new model updates. Sensitivity analyses that directly compare AERMET versions 12345 and 16216 are not available. However, analyses are available showing that there are no significant differences between consecutive versions of AERMET. For example, the use of AERMOD version 13350 with AERMET versions 12345 and 13350 (modeling the same source types as those in the project analyses) resulted in differences in impacts of no greater than 0.5 percent and in some cases none at all (USEPA, 2018).

Additional analyses from the USEPA SCRAM site also show that the use of AERMOD version 14134 with AERMET versions 13350 and 14134 resulted in no difference in impacts. The use of AERMOD version 15181 with AERMET versions 14134 and 15181 also resulted in no difference in impacts. Further, the use of AERMOD version 16216r with AERMET versions 15181 and 16216 resulted in no difference in impacts.

These analyses show that since impacts from (1) AERMET version 12345 are nearly equal to version 13350, (2) AERMET version 13350 are equal to version 14134, (3) AERMET version 14134 are equal to version 15181, and (4) AERMET version 15181 are equal to 16216, then (5) AERMET version 12345 are nearly equal to 16216. Therefore, use of AERMET version 16216 instead of version 12345 in the project dispersion modeling analyses would not produce a substantial difference in impacts compared to those presented in the Draft EIR.

Response to Comment SCAQMD-7

During the course of preparing the air quality analyses for this proposed Project, some of the proposed Project emission calculations were revised, and EPA updated the AERMOD dispersion model. Rather than re-model all of the Project impacts, the Port was able to use conservative scaling factors to update some of the Project impacts. In this comment, the SCAQMD raised concerns about the scaling methodology and the possibility of understating potential impacts. The remainder of this response (a) identifies the specific impacts that were scaled, (b) provides an overview of, and rationale for, the scaling methodology, and (c) addresses each specific SCAQMD concern and explains why the scaled impacts are not understated.

As described in Section 1.5 of Appendix B2 and Section 4.1 of Appendix B3 of the Draft EIR, AERMOD version 16216r (the current version) was used to model the following impacts:

- Criteria pollutant concentrations during construction (Impact AQ-2)
- Criteria pollutant concentrations during overlapping construction and operation (Impact AQ-2)

- Criteria pollutant concentrations during operation of the vapor destruction unit (VDU) only (Impact AQ-4)
- Chronic hazard index (Impact AQ-6)
- Acute hazard index (Impact AQ-6)
- Population cancer burden (Impact AQ-6)

A prior version of AERMOD, version 15181, was used to model the following impacts:

- Criteria pollutant concentrations during operation (Impact AQ-4)
- Individual cancer risk (Impact AQ-6)

Furthermore, a change in proposed Project assumptions made after the above two bullets were run with AERMOD v 15181 resulted in a modest increase in annual emissions during proposed Project operation. Only the following impacts were affected by this emissions change:

- Annual NO2 concentrations during operation
- Annual PM10 concentrations during operation
- Individual cancer risk

The AERMOD v 16216r modeling described in the first six bullets above already account for this emissions change.

Because the annual NO_2, annual PM_{10}, and individual cancer risk impacts were predicted to be well below the significance thresholds and the emission change is only a few percent, the original AERMOD v 15181 runs were scaled up using conservative factors instead of re-modeled. The scaling factors for NO_2 and PM_{10} ranged from 1.033 to 1.059 depending on the analysis year. The scaling factor for individual cancer risk was 1.28 for the proposed Project. These three impacts remained well below thresholds after the scaling factors were applied.

The commenter raised three concerns about the use of scaling factors: (1) the selected scaling factors may not be the highest factors derived from the emissions data; (2) using a single factor for all modeled sources may not capture higher increases for some key sources close to the receptors; and (3) use of AERMOD v 15181 for the scaled impacts may not reflect the model enhancements in AERMOD v 16216r. Each of these concerns is addressed in the following paragraphs.

Concern (1): the selected scaling factors may not be the highest factors derived from the emissions data. For the annual NO_2 and PM_{10} modeling, the only source with emissions that changed was vessel hoteling. The percent increase of vessel hoteling emissions was conservatively applied to all modeled sources, including those with no emissions change. The VDU's emission also changed, but it was remodeled with AERMOD v 16216r and added to the scaled concentrations, resulting in a conservative double-counting of the VDU's impacts (original emissions plus revised emissions). Therefore, the highest scaling factors were selected for NO_2 and PM_{10}.

For individual cancer risk, the emissions from all source categories increased because the exposure period was shifted from 2017 to 2019, when the throughput is assumed to be higher. The highest percent increase in emissions from any source category, except the VDU, and from any exposure sub-period was selected as

the scaling factor and applied to all modeled sources and all exposure sub-periods. The exposure sub-periods, which were used in compiling the risks for the various receptor types, include year's 1-2, 3-16, 17-30, 17-70, 1-25, 1-30, 3-9, 1-10, 11-12, and 3-6 of the exposure period. For the proposed Project, the highest factor of 1.28 was for vessel hoteling in years 3-6 of the exposure period. By comparison, the highest factors (not used) for the other exposure sub-periods ranged from 1.03 to 1.16, much lower than the selected factor of 1.28 for all sub-periods. Moreover, the highest factors for the source categories other than vessel hoteling were 1.09, 1.05, 1.26, 1.04, and 1.02 for construction, vessel transit, vessel anchorage, tugboats, and storage tanks/piping, respectively; all less than the selected factor of 1.28 for all sources. Emissions from the VDU increased by a factor of 2.9; however, the VDU contributed only 0.1 to 0.3 percent of the unscaled cancer risk. This means that the VDU would still contribute less than one (1) percent to the total cancer risk even with a 2.9-times adjustment. This small contribution is more than covered by the conservative 1.28 factor applied to the cancer risk results.

Concern (2): using a single factor for all modeled sources may not capture higher increases for some key sources close to the receptors. As described in the preceding paragraph, the scaling factors were derived by selecting the highest percent increases from the various emission source categories. Except for construction, the individual sources within each source category would increase their emissions uniformly, ensuring that the selected scaling factor would be appropriate for all modeled individual sources. The revised construction emissions (which only needed to be scaled for cancer risk, not for operational NO_2 or PM_{10} concentrations) would increase by a factor of 1.09 in total, but harborcraft emissions would increase by a factor of 1.22 while landside construction equipment emissions would decrease. Nevertheless, the 1.28 factor applied to cancer risk is still conservative enough to cover the 1.22 increase in construction harborcraft. Therefore, the single scaling factors are conservative enough to account for variation in emissions from the individual modeled sources.

Concern (3): use of AERMOD v 15181 for the scaled impacts may not reflect the model enhancements in AERMOD v 16216r. To test the similarity of AERMOD versions 15181 and 16216r, baseline emissions of criteria pollutants were modeled with both versions of AERMOD during the course of the air quality analysis. The resulting concentrations differed by 0.0 to 0.8 percent depending on the pollutant and averaging time (refer to the analysis in Section 1.5 of Appendix B2 of the Draft EIR). Therefore, the use of either AERMOD version would produce essentially the same predicted concentrations, meaning the AERMOD v 15181 results are appropriate for scaling.

Response to Comment SCAQMD-8

The comments are noted. The commenter recommends modifications to air quality construction mitigation measures MM AQ-1 and MM AQ-2. The LAHD has determined that the recommended edits are not necessary and/or appropriate for this Project. Regarding MM AQ-1, no Tier 4 tug boats are currently or readily available and MM AQ-2 is construction mitigation and a large portion of Project emissions from construction is related to barge/dredge equipment (not trucks). The LAHD continues to review new technology related to construction (as well as during operation, as per LM AQ-1), and implements these technologies as feasible.

Response to Comment SCAQMD-9

The comments are noted. The commenter has recommended that the Tenant equipment and technology feasibility review occur every two to five years rather than a five-year period required in lease measure LM AQ-1. Although it may appear that technology is transforming the goods movement industry at a rapid pace, the development of zero-emission technology equipment from concept and prototyping, through capability and longevity demonstration, and then to commercial production (assuming technical and economic feasibility has been demonstrated) is a relatively slow and methodical process, especially for

applications that pose challenging operating conditions (as is the case with a marine oil terminal). As discussed it the Port's Zero Emissions Roadmap, ocean going vessels are not currently conducive to Zero-Emission technologies, and the Shell Marine Oil Terminal does not use cargo handling equipment to transport product within the terminal, nor does it utilize trucks or locomotives to transport products to offsite locations. Because of this, the zero emissions vehicles and equipment are not likely to reduce criteria pollutant emissions under the proposed Project. Because of the long development lifecycle of zero-emission technology equipment and the lack of applicability of zero-emissions technologies to the Shell Marine Oil Terminal, the recommendation of a two-year review period is not warranted. Further, even if some type of zero emission technology is ultimately developed that might apply to the Shell Marine Oil Terminal, a two-year review period would not allow for the amortization of new equipment, which typically have life-cycles that exceed two years. It should be noted that the proposed new lease would be for a period of 30 years. Per LM AQ-1, any time the Tenant proposes a facility modification, the Tenant shall meet with LAHD to determine if something cleaner is feasible or technologically available.

Thank you for your support of LM AQ-2 - At-Berth Vessel Emissions Capture and Control System Study. Per the detailed description of LM AQ-2 (refer to the Draft EIR, as well as Response to Comment CARB-2 and Chapter 3, Modifications to this Draft EIR, of this Final EIR), it is the intent of the LAHD to present the results of the feasibility study to the Board at a public meeting, where comments would be accepted for consideration. We welcome SCAQMD's participation in this process. As applicable, information and progress regarding the new air technology in LM AQ-2 would be available to the public and responsible agencies.

2.2.3 Organization Comments

COASTAL SAN PEDRO NEIGHBORHOOD COUNCIL

Doug Epperhart
President
Dean Pentcheff
Vice President
Shannon Ross
Secretary
Louis Dominguez
Treasurer

April 30, 2018

City of Los Angeles Harbor Department
Christopher Cannon, Director
Environmental Management Division
P.O. Box 151
San Pedro, CA 90733-0151

Subject: Shell Marine Oil Terminal Wharf Improvements Project Draft Environmental Impact Report Comments Submittal

At the April 16, 2018 Coastal San Pedro Neighborhood Council Board Meeting, the Board approved the submittal of the following comment:

"As the Los Angeles basin suffers as a federal nonattainment area for ozone and particulate matter and the harbor area suffers greatly from pollution from port operations, the Coastal San Pedro Neighborhood Council opposes the Shell Oil Terminal Improvements Project, and supports the No Project Alternative, unless and until the Port of Los Angeles ensures the decrease of harmful air pollutants at Port operations such that the air quality in the harbor area is determined to comply with minimum federal requirements for air quality." CSPNC-1

Sincerely,

Douglas Epperhart

Doug Epperhart
President
On behalf of the Coastal San Pedro Neighborhood Council Board
cspnclive@gmail.com

cc: Board of Harbor Commissioners
Augie Bezmalinovich

2.2.3.1 Coastal San Pedro Neighborhood Council (CSPNC) - Doug Epperhart, President

Response to Comment CSPNC-1

Thank you for your comment. The commenter's opinion is noted and will be considered by the decision-makers. The potential impacts from the construction and operation of the proposed Project is detailed in Section 3.1, Air Quality and Meteorology of the Draft EIR. As described in Chapter 6, Analysis of Alternatives of the Draft EIR, although no construction would be undertaken as part of the No Project Alternative (Alternative 1) so there would be no impacts related to construction, because of operational activity increases through 2023 that would occur even without the proposed Project, the No Project Alternative would still have significant and unavoidable impacts in the areas of air quality. Greenhouse gas would be reduced compared to the proposed project. However, as with the proposed Project, biological resources, hazards, and energy conservation would be the same (i.e., less than significant). The No Project Alternative would not meet the primary objective of complying with MOTEMS requirements, nor would it meet any of the other objectives. The comment does not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

NC-CSP

CENTRAL SAN PEDRO NEIGHBORHOOD COUNCIL

WWW.CENTRALSANPEDRO.ORG

May 9, 2018

City of Los Angeles Harbor Department
Christopher Cannon, Director
Environmental Management Division
P.O. Box 151
San Pedro, CA 90733-0151

Subject: Shell Marine Oil Terminal Wharf Improvements Project Draft Environmental Impact Report Comments Submittal

At the May 8, 2018 Central San Pedro Neighborhood Council Board Meeting, the Board approved the submittal of the following comment:

"The Los Angeles basin is a federal non-attainment area for ozone and particulate matter and the harbor area suffers greatly from pollution from port operations.

The Central San Pedro Neighborhood Council opposes the Shell Oil Terminal Improvements Project; the Council supports the No Project Alternative, unless and until the Los Angeles Harbor Department ensures a decrease of harmful air pollutants at port operations so that the air quality in the harbor area is determined to comply with minimum federal requirements for air quality."

NC-CSP-1

Sincerely,

Christian Louis Guzman
Board Member and President
On behalf of the Central San Pedro Neighborhood Council

CC: Augie Bezmalinovich; Port Director Gene Seroka; Harbor Commission; Northwest SP Neighborhood Council; Coastal SP Neighborhood Council; Harbor City Neighborhood Council; Wilmington Neighborhood Council.

2.2.3.2 Central San Pedro Neighborhood Council (NC-CSP) – Christian Louis Guzman, Board Member and President

Response to Comment NC-CSP-1

Thank you for your comment. The commenter's opinion is noted and will be considered by the decision-makers. Please see Response to Comment CSPNC-1 (above). The comment does not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

2.2.4 Draft EIR Public Hearing

CERTIFIED COPY

IN RE THE MATTER OF THE PORT OF LOS ANGELES BERTHS 167-169 [SHELL] MARINE OIL TERMINAL WHARF IMPROVEMENTS PROJECT NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT REPORT.

Transcript of Hearing for the
Port of Los Angeles Berths 167-169
Marine Oil Terminal Wharf Improvements Project
Draft Environmental Impact Report
Wednesday, April 11, 2018
San Pedro, California

SNYDER HEATHCOTE INC.

REPORTED BY Jamie L. Apodaca
CSR 10990

OUR FILE NO.

OFFICIAL COURT REPORTERS
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SUITE 640
LOS ANGELES, CA 90010
TELEPHONE (213) 388-2151

IN RE THE MATTER OF THE PORT OF LOS ANGELES BERTHS 167-169 [SHELL] MARINE OIL TERMINAL WHARF IMPROVEMENTS PROJECT NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL IMPACT REPORT.

Transcript of the Port of Los Angeles Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project Notice of Availability of Draft Environmental Impact Report hearing held at 6:15 P.M. on Wednesday, April 11, 2018, at 425 South Palos Verdes Street, Second Floor, San Pedro, California, before Jamie L. Apodaca, CSR #10990.

APPEARANCES:

Erin Sheehy, Environmental Management Group

Christopher Cannon, Director of Environmental Management

WEDNESDAY, APRIL 11, 2018; SAN PEDRO, CALIFORNIA

MS. SHEEHY: All right. Hello, and thank you all for attending tonight. Thank you for coming to the public meeting to discuss the draft environment impact report for Shell's Marine Oil Terminal MOTEMS Upgrade Project, located at Berths 167 to 169. I'm Erin Sheehy. I'm in the Environmental Management Group for the CEQA section, and this is our director, Chris Cannon.

And if you want to welcome us --

MR. CANNON: Yeah, I can say a few words. Since we have this booming huge crowd, I'll take some time to talk. No, actually, I'll try to be quick.

The idea of these meetings is to get an opportunity to communicate with the public. If you've never been to one before, I can tell you that our job is not to answer any questions but rather to take good notes and to hear what anyone has to say. The idea is for you to give us input on activities, on comments, on things that have happened and -- or that you see in the analysis.

So we listen, and we take notes, and we try to make sure that we're as understanding as we possibly can of what you're doing. You also have the ability to put something in writing.

MS. SHEEHY: Yes.

MR. CANNON: And so we'll get information -- all that information is all at the end.

So with that, I'll turn it over to Erin, and thank you for being here today, and we look forward to hearing from you.

MS. SHEEHY: Yes. And, again, the meeting's being transcribed. So we're catching it word for word.

So, again, the purpose of this meeting is to go over the project. It's out for public comment right now. It's a draft environmental impact report, and it focuses on Shell's marine oil terminal and the upgrades that are required by the California State Lands Commission. It's a State law. It applies to all marine oil terminals in California, and that law asks that certain wharves and berths be upgraded to meet additional seismic standards.

So tonight we'd just like to cover a brief overview of the findings of the E.I.R. and how our analysis turned out. And also again, as Chris mentioned, it's a public hearing. You're free to comment here tonight. We do have Spanish translation available in case anyone needs that as well.

So, again, the primary purpose of the project is it's California State law that we upgrade these MOTEMS wharf facilities. So in this case, a timber wharf would be replaced with a concrete, more seismically sound wharf than

what is there now.

Some additional project elements would be to allow Shell to continue operating as they have been in the port since 1923, supplying petroleum products to Southern California markets. They will also be -- part of the project will be to comply with the port's Source Control Program, which is a program for secondary containment through update and maintaining secondary containment of above-ground storage tanks over time. And then, finally, the project would also include a 30-year lease at this site.

Again, the project's located on Morman Island, and that's over here (indicating). And the neighbors to Shell are Rio Tinto, kind of right below them; and there's two additional marine oil terminals on Morman Island right above Shell -- Valero and NuStar. So those are the neighboring facilities.

Current conditions -- again, Shell's been operating at this location as a marine oil terminal since 1923. They currently have two berths, two timber wharves. One, it is the one that is primarily in use. There's 11 permitted -- South Coast A.Q.M.D.-permitted above-ground storage tanks for the product.

And the baseline that we use for this particular project was a five-year average of all the throughput at the facility from the years 2011 to 2015, and that worked out to

be approximately 13.2 million barrels of product that was unloaded during that time. And it required about 86 vessel calls a year.

Just of note, so the products get unloaded directly from the vessels into the above-ground storage tanks. From these tanks, everything is transported underground via pipe line. So there are no truck racks, there are no truck trips, there are no trains. We're not anticipating hiring even one new employee as part of this project. So there's no expansion of backland capacity as part of the project.

So this is kind of a side view of what the wharf structure would look like. And, again, the existing wharf would be removed -- demolished and removed and replaced with two new concrete wharves.

There's some additional above-ground improvement that would be made. Some of the pipeline would have to be moved, but there would be new marine loading arms installed. There would be a vapor-control system installed which would allow product to also be exported back onto a vessel, and there would be some other small and minor improvements like a guard shack and some other -- some other minor backlands improvements.

And, again, the vast majority of the project is related to the MOTEMS State-required upgrades. But as I mentioned, additional benefits to the project would include

compliance with the Port of Los Angeles's Source Control Program, which again focuses on secondary containment for above-ground storage tanks and maintaining those over a period of time.

Shell has asked for a 30-year lease extension, and that would go through the year 2048. And then as part of the analysis of the E.I.R., it was assumed that over time, the business would grow, and it would grow at approximately a 2 percent annual increase. So that would -- by 2048, we would have 166 potential vessel calls and about 24 to 25 million barrels of product as throughput. So that would be sort of the end of the project -- 2048.

As you may know, CEQA requires that we consider any and all available alternatives. In this case, alternatives were really limited because it is a California State law that's mandating that this project be done. So a "No Project" alternative -- the only sort of resolution there would be that the current lease expires in 2023. So with no project at all, Shell would work here until 2023.

Another option that we considered and analyzed was building one of the berths to MOTEMS compliance and not the second berth. But unfortunately that would not allow the noncompliant berth to be used in the future. And those were analyzed but kind of dismissed as not really in keeping with the goal of the project.

So CEQA requires -- there's 19 categories of environmental impacts that we review, and those categories are then analyzed for different levels of impacts, everything from no impact at all to a potential impact, and a potential impact that could have been significant but is not significant once mitigation measures are implemented.

And there's several agencies that provide those thresholds, the definitions of what is significant. So we rely on -- the South Coast A.Q.M.D. publishes guidelines. City of Los Angeles publishes guidelines. Those are standard CEQA comparison measures to determine which projects are significant and which projects are not.

So 17 of the 19 environmental areas were found to either have no impact at all or an impact that could be mitigated to less-than-significant. So all of these areas have been analyzed and found, again, that there's either no significant impact or, with mitigation, the impact was less than significant.

We have two remaining impact areas that even with mitigation remained significant. In air quality, we have NOx emissions from construction that were over what A.Q.M.D. allows for a relatively short period of time, but that's considered to be a significant impact. Even with the implementation of mitigation, NOx was over South Coast A.Q.M.D.'s threshold.

For greenhouse gas, it's an annual threshold, and the project exceeds that threshold in about 27 years. It will take about 27 years' worth of additional vessel calls, but ultimately we would go over the 10,000 metric tons, which is the threshold.

And because there weren't any quantifiable GHG reduction measures, those would be the only two remaining areas of the document that have significant environmental impacts for which we couldn't fully mitigate the impacts.

So, again, the document is currently available on our web site, or if you didn't get a copy of it, we're happy to send you a link. Comments are due on May 10th. So anyone that would like to submit written comments, please try to do that prior to -- well, it's 5:00 o'clock on May 10th, is the deadline. They can either be mailed to our office at Chris Cannon's address here, or we have a specific email address solely for CEQA comments. So that would be the -- that would be the deadline there.

And I think that's it. So we're free and happy to take anyone's public testimony at this time, and, again, everything will be transcribed so that we get it exactly right, word for word. And then we will take those comments back and assess them as part of the document. So I think that's it.

MR. CANNON: I think we have one comment. It's Frank.

Come on up. Go ahead, and come on up to the podium. You have to push the green button in the middle there.

MR. ANDERSON: Oh, I don't know about technology.

Several questions on my part here, and I'm here representing the Central San Pedro Neighborhood Council. I'm the chair of the Port Committee. PH-1

One question I have -- there's -- I noticed an increase of vessels. Are any of these going to be AMPed? Do they have the ability to be AMPed?

MR. CANNON: So as I said to you, we can't answer questions for you. I think that you're welcome, after the meeting, to have conversations with some of the representatives of Shell here, and they may be able to answer some of your questions. But the purpose of today's meeting is simply to take notes. So we'll take notes and make sure those questions are answered.

MR. ANDERSON: Okay. I'll just express some concerns, then.

MR. CANNON: So just go ahead and ask the questions and if you have concerns, if you want to let us know what they're related -- PH-2

MR. ANDERSON: If I can't answer questions, I'll just express my concerns. One is with the increase of the number of vessels -- and vessels are very polluting, one of the

highest sources of pollution in the port. And I'm concerned about whether they can be AMPed or not or whether they can use the sock arm -- something to reduce the impact that they have on our port's pollution.

Also, I'm concerned -- I didn't see anything historical at the site. I don't know if there is. I didn't see it mentioned in the executive -- or in what you presented. PH-2 cont'd

Let's see. I had something else too.

Also, I'm concerned about the demolition, what kind of pollution -- water pollution, air pollution -- that would cause, and those are my concerns. Thank you.

MR. CANNON: Thank you.

MS. SHEEHY: Thank you.

MR. CANNON: Thank you very much.

MR. ANDERSON: You're welcome.

MR. CANNON: Any other comments? Or anybody else want to come up and have anything to say?

Okay. So keep in mind that if anyone wants to make additional comments -- and, Frank, even if you want to make any additional comments -- you're welcome to do so in writing. Just send to the email address or -- see the mailing address or email address that were listed.

One last chance. Is there anyone that has something that they want to say or any comments that anybody wants to

make?

Okay. Hearing none, we officially declare this hearing closed. Thank you very much.

MS. SHEEHY: Thank you.

(Whereupon the hearing was adjourned at 6:31 P.M.)

2.2.4.1 Public Hearing Transcript (PH)

Response to Comment PH-1

The question is noted. As Mr. Cannon indicated at the beginning of the public hearing (see page 3 of the transcript), the purpose of the meeting is to take public comment and not answer questions. Please see Response to Comment PH-2 for information responding to this question.

Response to Comment PH-2

The comments are noted. Please see also the Response to Comment CARB-2 above.

Tankers are currently exempt from CARB's At-Berth Regulation and specifically from the use of Alternative Maritime Power (AMP), which is the technique of utilizing shoreside electrical power to operate vessels when they are berthed at an appropriately equipped wharf, was not considered for the proposed Project for two main reasons: 1) currently the only AMP at the Port of Los Angeles has been associated with container terminals/ships, and 2) the Tenant does not own and operate a fleet of tank vessels that serve the marine oil terminal. Rather, the vessels that call on the terminal can be owned and operated by various different entities, and neither the Tenant nor the Port has no authority or the ability to implement AMP conversion of tank vessels calling on the Shell Marine Oil Terminal. However, as detailed in Section 3.1, Air Quality and Meteorology of the Draft EIR, the proposed Project does include a lease measure (LM-AQ-2: At-Berth Vessel Emissions Capture and Control System Study), which requires the Tenant to evaluate the financial, technical, and operational feasibility of operating barge and land-based vessel emissions capture and control systems and any other systems associated with emission reductions. Also, please see the Response to CARB-2 above.

Regarding the comment on anything historical at the site, as described in Section 1.5 in Chapter 1, Introduction of the Draft EIR, the scope of the Draft EIR is based on the Notice of Preparation (NOP) and Initial Study (IS) prepared and circulated pursuant to CEQA, and comments received during the public review period. Two NOP/IS' associated with the proposed Project have been circulated for public review. Both NOP/IS' are included in Appendix A of the Draft EIR. As detailed in Checklist Item V, Cultural Resources, because no historic properties are located on-site, no substantial adverse change in the significance of a historical resource would occur from implementation of the proposed Project; therefore, there would be no impact and this issue was not addressed further in the EIR.

Regarding the impacts on the environment from additional vessels and demolition, as each of these are major project elements, the CEQA document for the proposed Project (which includes the two NOP/IS', as well as the Draft EIR) fully analyzed the potential impacts of these two project elements. The analysis associated with the proposed Project addressed all 18 environmental resources areas plus energy conservation. The two NOP/IS' (both are in Appendix A of the Draft EIR) found no impacts or less than significant impacts associated with the proposed Project (which included analysis of increase in vessels and wharf demolition) to: aesthetics, agriculture and forest resources, cultural resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. Based on the NOP/IS', those resources with the potential for significant impacts - air quality, biological resources, greenhouse gas, and hazards – were addressed further in the EIR. In addition, energy conservation was also analyzed in the Draft EIR to address energy consumption and conservation related to the proposed Project consistent with the guidance in Appendix F of the CEQA Guidelines.

The comments are general and do not identify any specific deficiencies or contest the adequacy of the Draft EIR; therefore, no further response is required (PRC 21091(d); State CEQA Guidelines Section 15204(a); 40 CFR 1503.4 (a)(5)).

2.3 References

Following are additional materials referenced in the Section 2.2, Response to Comments, above:

- California Emergency Management Agency. 2015. Available: https://w3.calema.ca.gov/operational/malhaz.nsf/$defaultview. Last accessed: October 8, 2015.
- California State Lands Commission (CSLC). 2015. Final Environmental Impact Report (EIR) for the Tesoro Avon Marine Oil Terminal Lease Consideration. January
- _____. 2017. California State Lands Commission Supplied Spill Data for Marine Oil Terminals in the Port Complex, 2010 – 2016.
- CARB, 2017 Staff Report: Technical Support Document: Initial Statement of Reasons for the Proposed Rulemaking]
- DMJM Harris/AECOM. 2008. Dynamic Mooring Analysis at Berths 167-169. October 31.
- Littlejohn, Donna. "Second Port of Los Angeles Oil Spill in a Month". *Daily Breeze*. March 31, 2016,
- Marraffini, Michelle L., Gail V. Ashton, Chris W. Brown, Andrew L. Chang and Greg M. Ruiz. 2017. Settlement plates as monitoring devices for non-indigenous species in marine fouling communities. Management of Biological Invasions (2017) Volume 8.
- Marine Spill Response Corporation (MRSC). 2018. MSRC Major Equipment List. June 6. Available: https://www.msrc.org/services/oil-spill-response/equipment/major-equipment-list Accessed June 11, 2018.
- MBC Applied Environmental Sciences (MBC) and Merkel & Associates. 2016. 2013–2014 Biological Surveys of Long Beach and Los Angeles Harbors. June 1. Prepared for Port of Long Beach and Port of Los Angeles. Available: https://www.portoflosangeles.org/pdf/Biobaseline2014.pdf. Accessed May 20, 2018.
- MEC and Associates. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Long Beach and Port of Los Angeles. Available: https://www.portoflosangeles.org/pdf/Biobaseline2000.pdf. Accessed May 20, 2018.
- Port of Los Angeles (POLA) and Port of Long Beach (POLB). 2010. San Pedro Bay Ports Clean Air Action Plan 2010 Update, Appendix B5 Attachment I: Bay-Wide Sphere of Influence Analysis for Surface Meteorological Stations Near the Ports, October.
- _____. 2011. Roadmap for Moving Forward with Zero Emission Strategies at the Ports of Long Beach and Los Angeles. August. Available: http://www.cleanairactionplan.org/documents/zero-emissions-roadmap-technical-report.pdf. Accessed August 21, 2017.

- _____. 2013. Application for Discretionary Permit Project Summary Form. October 7.
- Shell Oil Products, 2015. Mormon Island Terminal Emergency Response Action Plan. January.
- TIAX LLC. 2011. Technology Status Report – Zero Emission Drayage Trucks. Prepared for the Port of Long Beach and Port of Los Angeles. June.
- U.S. Coast Guard (USCG). 2017. Marine Safety Center, BWMS Type Approval Status. Revised 17 October. Available: https://www.dco.uscg.mil/Portals/9/DCO Documents/Marine Safety Center/BWMS. Accessed May 20, 2018.
- U.S. Environmental Protection Agency (USEPA). 2017. Guideline on Air Quality Models. 40 CFR Appendix W to Part 51. Federal Register Vol. 82, No. 10. January 17.
- USEPA Support Center for Regulatory Atmospheric Modeling [SCRAM] website. Available: https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models. Accessed: May 20, 2018.

Chapter 3
Modifications to the Draft EIR

3.1 Introduction

This chapter of the document addresses modifications to the Draft EIR for the Berths 167-169 [Shell] Marine Oil Terminal Wharf Improvements Project (proposed Project) at the Port of Los Angeles (Port). It presents all revisions related to public comments, as determined necessary by the lead agencies, for the following areas of the document:

- Executive Summary
- Section 3.1, Air Quality and Meteorology
- Section 3.2, Biological Resources
- Chapter 5, Cumulative Analysis

Any revisions to supporting documentation are also presented. The numbering format from the Draft EIR is maintained in the sections presented here. Only sections that have revisions based on public comment are included, and sections that have no revisions are not included. Readers are referred to the Draft EIR to view complete sections.

It should be noted that most of the changes were editorial in nature. One lease measure was revised to make a minor correction, and another lease measure was revised to reflect CARB comments on the same lease measure for another project. None of the edits result in changes to significance findings.

As provided in Section 15088(c) of the State CEQA Guidelines, responses to comments may take the form of a revision to a Draft EIR or may be separate section in the Final EIR. This chapter complies with the latter of these two guidelines and provides changes to the Draft EIR in revision-mode text (i.e., deletions are shown with ~~strikethrough~~ and additions are shown with <u>underline</u>). These notations are meant to provide clarification, corrections, or minor revisions as needed as a result of public comments or because of changes in the proposed Project since the release of the Draft EIR.

3.2 Changes to the Draft EIR

The following changes to the text as presented below are incorporated into the Final EIR:

3.2.1 Changes Made to the Executive Summary

Section ES.5.2.3, Page ES-17, Table ES-1

For consistency with the impact analysis (Section 3.1, Air Quality and Meteorology) the text under "Impact Determination" and "Impacts After Mitigation" columns associated with Impact AQ-1 under 3.1 Air Quality and Meteorology are revised as follows:

Table ES-1: Summary of Potential Significant Impacts and Mitigation for the Proposed Project

Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
3.1 Air Quality and Meteorology			
AQ-1: The proposed Project would result in construction-related emissions that exceed an SCAQMD threshold of significance in Table 3.1-7.	Construction would be significant for NOX <u>in construction Years 1, 2, 3 and 5</u>~~and VOC in construction Year 3 (2019) and for NOx in Year 4 (2020)~~. Overlapping construction and operations would be significant for VOC, NO_X, and $PM_{2.5}$.	MM AQ-1: Fleet Modernization for Harbor Craft Used During Construction MM AQ-2: Fleet Modernization for On-Road Trucks Used during Construction MM AQ-3: Fleet Modernization for Construction Equipment MM AQ-4: General Mitigation Measure	Construction would be significant and unavoidable for NOx in construction Year<u>s 2, 3, and 5</u>. Overlapping construction and operations would be significant and unavoidable for $PM_{2.5}$, VOC, and NO_X.

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Section ES.5.2.4, Page ES-22

For consistency with Chapter 5, Cumulative Analysis, the air quality and meteorology cumulative text is revised as follows:

The proposed Project could result in cumulatively considerable impacts for the following resource areas:

- Air Quality and Meteorology
  - Construction and overlapping construction with operation of the proposed Project would make a cumulatively considerable and unavoidable contribution to a significant cumulative impact for $PM_{2.5}$, NOx, and VOC emissions after mitigation.
  - Construction and overlapping construction with operations of the proposed Project would make a cumulatively considerable and unavoidable contribution to an existing significant cumulative impact for NO_2 after mitigation.
  - Operation of the proposed Project would make a cumulatively considerable and unavoidable contribution to an existing significant cumulative impact for NOx and VOC emissions after mitigation.
  - The proposed Project would make a cumulatively considerable contribution to an existing significant cumulative impact for cancer risk and population cancer burden after mitigation.
  - The proposed Project would make a considerable contribution to cumulative non-cancer chronic or acute health impacts.

3.2.2 Changes Made to Section 3.2, Air Quality and Meteorology

Section 3.1.4.4, Pages 3.1-59

A minor edit was made to Lease Measure LM AQ-1 to correct information regarding the terminal's lease, as follows:

LM AQ-1: Periodic Review of New Technology and Regulations. LAHD will require the tenant to review any LAHD-identified or other new emissions-reduction technology, determine whether the technology is feasible, and report to LAHD. Such technology feasibility reviews will take place at the time of LAHD's consideration of any lease amendment or facility modification for the proposed project site. If the technology is determined by LAHD to be feasible in terms of cost and technical and operational feasibility, the tenant will work with LAHD to implement such technology.

Potential technologies that may further reduce emissions and/or result in cost-savings benefits for the tenant may be identified through future work on the Clean Air Action Plan (CAAP). Over the course of the lease, the tenant and LAHD will work together to identify potential new

technology. Such technology will be studied for feasibility, in terms of cost, technical and operational feasibility, and emissions reduction benefits. As partial consideration for the lease ~~amendment~~, the tenant will implement not less frequently than once every five years following the effective date of the permit, new air quality technological advancements, subject to mutual agreement on operational feasibility and cost sharing, which will not be unreasonably withheld. The effectiveness of this measure depends on the advancement of new technologies and the outcome of commercial availability, future feasibility or pilot studies.

Section 3.1.4.4, Pages 3.1-59 to 3.1-61

Although not specifically requested by CARB regarding the proposed Project, in the LAHD's attempt to apply consistent lease measures throughout the Port, CARB proposed revisions to the At-Berth Vessel Emissions Capture and Control System lease measure for the Berths 238-239 [PBF Energy] Marine Oil Terminal Improvement Project are being applied to lease measure LM AQ-2 as follows:

LM AQ-2: **At-Berth Vessel Emissions Capture and Control System Study.** The Tenant shall begin to evaluate the financial, technical, and operational feasibility of operating barge and land-based vessel emissions capture and control systems and any other systems associated with emission reductions (hereinafter "Control Systems") that are available within three (3) months after the Effective Date. The City of Los Angeles (City) and Tenant will decide jointly which systems should be considered for the reduction of emissions from all vessels calling at the Premises. The evaluation of feasibility shall consider any potential impacts upon navigation, safety, and emission reductions. Cost Effectiveness (as defined below), and any other factors reasonably determined by Tenant and the City to be relevant shall also be considered. For purposes of the feasibility evaluation, "Cost Effectiveness" shall be defined as the annualized cost (in Dollars per year) of the Control Systems ("Annualized Cost") based on an agreed time period (the duration of such period determined with reasonable consideration of the Carl Moyer grant guidelines), divided by the annual net emission reductions (unweighted aggregate of net emissions reduction in tons per year of VOC, NOx, and PM10) over the same time period during use of the Control Systems ("Net Annual Emission Reductions"). Annualized Cost shall include all costs associated with the Control Systems, including without limitation, all capital costs associated with design, permitting and construction of the Control Systems and all costs associated with system evaluation, operations and maintenance. Cost Effectiveness (dollars per ton) may be calculated pursuant to the formulas below.

- Cost Effectiveness ($/ton) = Annualized Cost ($/year) / Net Annual Emission Reductions (tons/year)

- Net Annual Emission Reductions = Annual Vessel Emission Reductions – Annual Emissions Generated by Control System and Associated Equipment Operations

If Cost Effectiveness is greater than ~~Appendix G of~~ the Carl Moyer ~~grant guidelines in effect~~Program Guidelines, as approved by the California Air Resources Board as of the Effective Date, then implementation of the Control Systems shall not be considered feasible.

Tenant shall provide the Director of Environmental Management Division for the Harbor Department with a written report (the "Report") documenting the findings and conclusions of the feasibility analysis within one year of the Effective Date. The Report's feasibility conclusion shall include but not be limited to specific findings in the following areas: (1) size constraints; (2) allowance for articulation of the recovery crane/device to service a variety of ship sizes that may reasonably call at the premises during the term of the proposed permit; (3) navigation for terminal operations as well as those of adjacent terminals; (4) compliance with Marine Oil Terminal Engineering and Maintenance Standards; (5) operational safety issues; and (6) compliance with the rules and orders of any applicable regulatory agency. The deadline for Tenant to submit the Report may be extended with the approval of the Board of Harbor Commissioners (Board), provided that such approval shall not be unreasonably withheld. City shall have ~~one year~~six months to review and comment on the Report unless the Board reasonably determines that additional time is needed as a result of unanticipated events or any events beyond the reasonable control of the City. The Report and any associated staff comments from the City will be presented by the City to the Board at a public meeting. If the City's review of the Report is delayed beyond one year, then the City shall present this information to the Board at a public meeting along with a proposed new comment deadline for the City.

If the Board and Tenant agree that implementation of a Control System(s) is/are feasible, then Tenant shall complete a pilot study ("Pilot Study") within three years of the later of (i) receiving all approvals and permits required by Applicable Laws for such study; (ii) receiving any and all licenses and other intellectual property rights required by Applicable Laws to conduct such study; (iii) commencing with terminal operations upon the completion of all New Improvements and Tenant Constructed Improvements; and (iv) Board providing Tenant with approval to proceed. The deadline for Tenant to complete the Pilot Study may be extended with approval by the Board, provided that such approval shall not be unreasonably withheld. The Pilot Study shall consist of (i) installation of a test control system (the "Test System") for purposes of testing the performance of a Control System; and (ii) testing of the Test

System and the collection of data therefrom. At the conclusion of testing, the Tenant shall submit a report (the "Pilot Study Report") to the Board. The Pilot Study Report shall include the following information: vessels tested, operation and maintenance costs, emission reductions, operational considerations and any other information Tenant reasonably determines to be relevant. The results of the Pilot Study, and any intellectual property rights therein, shall be owned by Tenant. The City and the Board shall use the results and Pilot Study Report only for the evaluation of the Pilot Study. City shall not issue any press releases or make any written public disclosures with respect to the Report or the Pilot Study Report without first providing Tenant with a reasonable opportunity to review such releases or disclosure for accuracy and to ensure that no technical information is disclosed where such public disclosure is not necessary (Tenant understands that nothing herein shall be interpreted to supersede the California Public Records Act and the City's responsibilities thereto).

If, based on the results of the Pilot Study set forth in the Pilot Study Report, the City and Tenant determine that all of the issues relating to feasibility and regulatory requirements of the Control System were adequately addressed, then Tenant shall, as soon as reasonably practicable after such determination, implement the Control System(s) into its operations throughout the remainder of the permit.

<u>All capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the tenant's permit.</u>

Section 3.1.4.6, Pages 3.1-73 to 3.1-75

Revise lease measures LM AQ-1 and LM AQ-2, as follows:

AQ-3: The proposed Project would result in operational emissions that exceed an SCAQMD threshold of significance.	
Mitigation Measure	**MM AQ-5. Vessel Speed Reduction Program (VSRP).** 95 percent of vessels calling at Shell Marine Oil Terminal will be required to comply with the expanded VSRP at 12 knots between 40 nautical miles (nm) from Point Fermin and the Precautionary Area.
Timing	During operation.
Methodology	LAHD will include this mitigation measure in lease agreements with tenants
Responsible Parties	LAHD.
Residual Impacts	Significant and unavoidable.
Lease Measure	**LM AQ-1. Periodic Review of New Technology and Regulations.** LAHD will require the tenant to review any LAHD-identified or other new emissions-reduction technology, determine whether the technology is feasible, and report to LAHD. Such technology feasibility reviews will take place at the time of LAHD's consideration of any lease amendment or facility modification for the proposed project site. If the technology is determined by LAHD to be feasible in terms of cost and technical and operational feasibility, the tenant will work with LAHD to implement such technology. Potential technologies that may further reduce emissions and/or result in cost-savings benefits for the tenant may be identified through future work on the Clean Air Action Plan (CAAP). Over the course of the lease, the tenant and LAHD will work together to identify potential new technology. Such technology will be studied for feasibility, in terms of cost, technical and operational feasibility, and emissions reduction benefits. As partial consideration for the lease ~~amendment~~, the tenant will implement not less frequently than once every five years following the effective date of the permit, new air quality technological advancements, subject to mutual agreement on operational feasibility and cost sharing, which will not be unreasonably withheld. The effectiveness of this measure depends on the advancement of new technologies and the outcome of future feasibility or pilot studies.
Timing	During operation.
Methodology	LAHD will include this lease measure in lease agreements with tenants.
Responsible Parties	Shell, LAHD.
Residual Impacts	Significant and unavoidable.

Mitigation Measure	**LM AQ-2: At-Berth Vessel Emissions Capture and Control System Study.** The Tenant shall begin to evaluate the financial, technical, and operational feasibility of operating barge and land-based vessel emissions capture and control systems and any other systems associated with emission reductions (hereinafter "Control Systems") that are available within three (3) months after the Effective Date. The City of Los Angeles (City) and Tenant will decide jointly which systems should be considered for the reduction of emissions from all vessels calling at the Premises. The evaluation of feasibility shall consider any potential impacts upon navigation, safety, and emission reductions. Cost Effectiveness (as defined below), and any other factors reasonably determined by Tenant and the City to be relevant shall also be considered. For purposes of the feasibility evaluation, "Cost Effectiveness" shall be defined as the annualized cost (in Dollars per year) of the Control Systems ("Annualized Cost") based on an agreed time period (the duration of such period determined with reasonable consideration of the Carl Moyer grant guidelines), divided by the annual net emission reductions (unweighted aggregate of net emissions reduction in tons per year of VOC, NOx, and PM10) over the same time period during use of the Control Systems ("Net Annual Emission Reductions"). Annualized Cost shall include all costs associated with the Control Systems, including without limitation, all capital costs associated with design, permitting and construction of the Control Systems and all costs associated with system evaluation, operations and maintenance. Cost Effectiveness (dollars per ton) may be calculated pursuant to the formulas below. • Cost Effectiveness ($/ton) = Annualized Cost ($/year) / Net Annual Emission Reductions (tons/year) • Net Annual Emission Reductions = Annual Vessel Emission Reductions – Annual Emissions Generated by Control System and Associated Equipment Operations If Cost Effectiveness is greater than ~~Appendix G of t~~he Carl Moyer ~~grant guidelines in effect~~Program Guidelines, as approved by the California Air Resources Board as of the Effective Date, then implementation of the Control Systems shall not be considered feasible. Tenant shall provide the Director of Environmental Management Division for the Harbor Department with a written report (the "Report") documenting the findings and conclusions of the feasibility analysis within one year of the Effective Date. The Report's feasibility conclusion shall include but not be limited to specific findings in the following areas: (1) size constraints; (2) allowance for articulation of the recovery crane/device to service a variety of ship sizes that may reasonably call at the premises during the term of the proposed permit; (3) navigation for terminal operations as well as those of adjacent terminals; (4) compliance with Marine Oil Terminal Engineering and Maintenance Standards; (5) operational safety issues; and (6) compliance with the rules and orders of any applicable regulatory agency. The deadline for Tenant to submit the Report may be extended with the approval of the Board of Harbor Commissioners (Board), provided that such approval shall not be unreasonably withheld. City shall have ~~one year~~six months to review and comment on the Report unless the Board reasonably determines that additional time is needed as a result of unanticipated events or any events beyond the reasonable control of the City. The Report and any associated staff comments from the City will be presented by the City to the Board at a public meeting. If the City's review of the Report is delayed

	beyond one year, then the City shall present this information to the Board at a public meeting along with a proposed new comment deadline for the City. If the Board and Tenant agree that implementation of a Control System(s) is/are feasible, then Tenant shall complete a pilot study ("Pilot Study") within three years of the later of (i) receiving all approvals and permits required by Applicable Laws for such study; (ii) receiving any and all licenses and other intellectual property rights required by Applicable Laws to conduct such study; (iii) commencing with terminal operations upon the completion of all New Improvements and Tenant Constructed Improvements; and (iv) Board providing Tenant with approval to proceed. The deadline for Tenant to complete the Pilot Study may be extended with approval by the Board, provided that such approval shall not be unreasonably withheld. The Pilot Study shall consist of (i) installation of a test control system (the "Test System") for purposes of testing the performance of a Control System; and (ii) testing of the Test System and the collection of data therefrom. At the conclusion of testing, the Tenant shall submit a report (the "Pilot Study Report") to the Board. The Pilot Study Report shall include the following information: vessels tested, operation and maintenance costs, emission reductions, operational considerations and any other information Tenant reasonably determines to be relevant. The results of the Pilot Study, and any intellectual property rights therein, shall be owned by Tenant. The City and the Board shall use the results and Pilot Study Report only for the evaluation of the Pilot Study. City shall not issue any press releases or make any written public disclosures with respect to the Report or the Pilot Study Report without first providing Tenant with a reasonable opportunity to review such releases or disclosure for accuracy and to ensure that no technical information is disclosed where such public disclosure is not necessary (Tenant understands that nothing herein shall be interpreted to supersede the California Public Records Act and the City's responsibilities thereto). If, based on the results of the Pilot Study set forth in the Pilot Study Report, the City and Tenant determine that all of the issues relating to feasibility and regulatory requirements of the Control System were adequately addressed, then Tenant shall, as soon as reasonably practicable after such determination, implement the Control System(s) into its operations throughout the remainder of the permit. All capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the tenant's permit.
Timing	During operation.
Methodology	LAHD will include this lease measure.
Responsible Parties	Shell, LAHD.
Residual Impacts	Significant and unavoidable.

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3.2.3 Changes Made to Section 3.2, Biological Resources

Section 3.2.5, Page 3.2-40

For consistency with the impact analysis (Section 3.2.4.4, under Impact BIO-3), the following paragraph is revised:

The proposed Project is not expected to result in the loss of individuals, or the reduction of existing habitat, of a state or federally listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally designated critical habitat, nor would it result in a substantial reduction or alteration of a state, federally, or locally designated natural habitat, special aquatic site, or plant community, including wetlands. In addition, the proposed Project would not result in a substantial disruption of local biological communities (e.g., from construction impacts or the introduction of noise, light, or invasive species). Accordingly, significant impacts from the proposed Project to biological resources are not anticipated. ~~The introduction of nonnative (invasive) species during Project operations that substantially disrupt local biological communities would remain significant and unavoidable because no feasible mitigation is currently available.~~

3.2.4 Changes Made to Chapter 5, Cumulative Analysis

Section 5.2.3.2, Page 5-33

For consistency with the impact analysis (Section 3.3, Greenhouse Gas Emissions and Climate Change), the following paragraph is revised:

Mitigation Measures and Residual Cumulative Impacts

Proposed Project impacts would combine with impacts from related projects, which would already be cumulatively significant. ~~Some~~A mitigation measure~~s~~ required to reduce air quality impacts during construction and operation (specifically~~, MM AQ-2 and~~ MM AQ-5) would have the effect of reducing fossil fuel consumption and therefore reducing GHG emissions. However, GHG emissions would still remain above the significance threshold. There are no other feasible mitigation measures available to reduce the generation of GHG emissions from the proposed Project. As a result, after mitigation, GHG emissions from the proposed Project would make a cumulatively considerable contribution to a significant cumulative impact related to GHG and global climate change.

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