

**Phillips 66 Company
Richmond Marine Terminal
CARB At Berth Terminal Plan**

Last Update: November 22, 2021

This terminal plan has been prepared pursuant Section to 93130.14(a)(3) of the Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port.

Control Strategies

- Strategy 1: Low activity terminal exception
- Strategy 2: Third party barge-based capture and control system

Strategy 1: Low activity terminal exception

93130.14(a)(3)(A): Identification of and description of all necessary equipment, including whether it will be located on the vessel, wharf, shore, or elsewhere:

Not applicable for low activity terminal

93130.14(a)(3)(B): Number of vessels expected to visit the terminal using the strategy:

Less than 20 CARB regulated vessels per year

93130.14(a)(3)(C): List of each berth with geographic boundary coordinates:

<u>Name:</u>	<u>Approximate Geographic Boundary Coordinates: *</u>
Richmond Dock 11	37.915113, -122.365226

**The number of berths on a terminal and the spatial positioning of berths are dependent on vessel size; thus, the geographic boundary coordinates are approximate only.*

93130.14(a)(3)(D): Identify berth(s) where equipment will be used:

Richmond Dock 11

93130.14(a)(3)(E): Terminal/port specific berthing restrictions:

Phillips 66 complies with all federal, state, and local requirements. Terminal restrictions are documented in the latest Terminal Operating Limits as approved and regulated by the California State Lands Commission (CSLC) in compliance with California Building Code (CBC) Chapter 31F: Marine Oil Terminals also known as the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). Additional berthing restrictions are identified in the Richmond Marine Operations Manual.

93130.14(a)(3)(F): Schedule for installing equipment:

Not applicable for low activity terminal

93130.14(a)(3)(G): Division of responsibilities between the terminal operator and the port, including contractual limitations applicable to the terminal, relevant to enacting the infrastructure required by each terminal's plan:

There is no Port Authority responsibility identified in association with the Phillips 66 Richmond Terminal. There are no United States Coast Guard (USCG) limitations identified at time of submission.

93130.14(a)(3)(H): A terminal operator claiming that a physical and/or operational constraint will delay its ability to implement its preferred CARB approved control strategy to achieve emission reductions from vessels at berth according to the requirements of section 93130 et seq., must also include with its terminal plan a technical feasibility study evaluating if there are any other emission control options that could be implemented more quickly at the terminal:

Not applicable for low activity terminal.

Strategy 2: Third party barge-based capture and control system

93130.14(a)(3)(A): Identification of and description of all necessary equipment, including whether it will be located on the vessel, wharf, shore, or elsewhere:

Third party barge-based capture and control system that is CARB and IMO (International Maritime Organization) approved and accepted for safe interfacing with tanker vessels

93130.14(a)(3)(B): Number of vessels expected to visit the terminal using the strategy:

Up to 65 CARB regulated vessels per year

93130.14(a)(3)(C): List of each berth with geographic boundary coordinates:

<u>Name:</u>	<u>Approximate Geographic Boundary Coordinates: *</u>
Richmond Dock 11	37.915113, -122.365226

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93130.14(a)(3)(D): Identify berth(s) where equipment will be used:

Richmond Dock 11

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Phillips 66 complies with all federal, state, and local requirements. Terminal restrictions are documented in the latest Terminal Operating Limits as approved and regulated by the California State Lands Commission (CSLC) in compliance with California Building Code (CBC) Chapter 31F: Marine Oil Terminals also known as the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). Additional berthing restrictions are identified in the Richmond Marine Operations Manual.

93130.14(a)(3)(F): Schedule for installing equipment:


Within twelve (12) months of at least two (2) or more CARB and IMO approved barge vendors operating in the Bay Area with available capacity to serve the Phillips 66 Richmond Terminal OR by the CARB compliance deadline (whichever is later).

93130.14(a)(3)(G): Division of responsibilities between the terminal operator and the port, including contractual limitations applicable to the terminal, relevant to enacting the infrastructure required by each terminal’s plan:

There is no Port Authority responsibility identified in association with the Phillips 66 Richmond Terminal. There are no United States Coast Guard (USCG) limitations identified at time of submission.

93130.14(a)(3)(H): A terminal operator claiming that a physical and/or operational constraint will delay its ability to implement its preferred CARB approved control strategy to achieve emission reductions from vessels at berth according to the requirements of section 93130 et seq., must also include with its terminal plan a technical feasibility study evaluating if there are any other emission control options that could be implemented more quickly at the terminal:

There needs to be at least two third-party barge-based capture and control system providers that are CARB and IMO approved and accepted for safe interfacing with tanker vessels. This is to ensure that competitive bids can be obtained before executing a contract with the successful bidder. This constraint and others, including other terminal-based compliance technologies, directly impacting the operability and safety of the ship/shore interface are documented in the DNV “CARB OGV at Berth Regulation Emissions Control Technology Assessment for Tankers” feasibility report.

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SIGNATURE OF TERMINAL’S RESPONSIBLE OFFICIAL	
<i>By signing below, the Terminal Operator’s Responsible Official confirms under penalty of perjury that he/she has reviewed this At Berth Terminal Plan and is submitting this At Berth Terminal Plan as the Richmond Marine Terminal compliance strategy for the At Berth Regulation. Terminal personnel understand this plan is subject to verification by CARB staff.</i>	
Name: Gabriel Munoz	Title: Region Manager
Signature: 	Date: 11/30/2021