

Phillips 66 Company Rodeo Marine Terminal At Berth Terminal Plan

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.

| GENERAL INFORMATION | |
|---|--|
| Terminal Contact Name: Greg Jeffus | |
| Phone Number: (510) 245-4515 | Email: greg.jeffus@p66.com |
| <u>Approximate Geographic Boundary Coordinates of Marine Terminal in this Plan:</u> | |
| <p>Commencing at United States Harbor Line Station "U" the California Zone 3 co-ordinates of which are Y=569,518.32 and X=1,493,752.14 as shown on map of Harbor Line for Carquinez Strait established by the Secretary of War and filed in the United States Engineers Office, San Francisco, from which United States Harbor Line Station "Ole", the California Zone 3 co-ordinates of which are Y=569,549.09 and X=1,493,822.28; thence N 26° 53' 40" W, 344.30 feet; thence S 71° 05' 10" W, 117.42 feet to a point in the northerly line of the land described in the Deed to Union Oil Company; thence along the following courses and distances: S 71° 05' 10" W, 102.48 feet and N 01° 10' 15" W, 112.27 feet to the beginning of a tangent curve concave westerly having a radius of 650.27 feet, thence northerly along said curve through a central angle of 08° 19' 15" an arc distance of 94.44 feet; thence tangent to said curve N 09° 29' 30" W, 1293.58 feet; thence along the following courses and distances: S 80° 30' 30" W, 30.00 feet; thence N 09° 29' 30" W, 208.00 feet; thence S 77° 00' 30" W, 622.01 feet; thence N 12° 59' 30" W, 51.75 feet; thence N 67° 59' 30" W, 90.95 feet; thence S 12° 59' 30" E, 6.83 feet; thence S 77° 00' 30" W, 5.50 feet; thence N 12° 59' 30" W, 6.25 feet; thence S 77° 00' 30" W, 6.50 feet; thence N 12° 59' 30" W, 0.58 feet; thence S 77° 00' 30" W, 33.50 feet; thence S 12° 59' 30" E, 6.25 feet; thence S 77° 00' 30" W, 5.50 feet; thence N 12° 59' 30" W, 38.33 feet; thence N 77° 00' 30" E, 1375.84 feet; thence S 12° 59' 30" E, 136.00 feet; thence S 77° 00' 30" W, 520.13 feet; thence S 09° 29' 30" E, 726.19 feet; thence N 80° 30' 30" E, 42.00 feet; thence S 09° 29' 30" E, 134.00 feet; thence S 80° 30' 30" W, 42.00 feet; thence S 09° 29' 30" E, 836.40 feet to the true point of beginning containing 7.403 acres, more or less.</p> | |
| STRATEGY DETAILS | |
| <i>Strategy used to comply with the requirements for ocean-going vessels visiting each berth:</i> | |
| Third party barge-based capture and control system CARB and IMO (International Maritime Organization) approved and accepted for safe interfacing with tanker vessels. | |
| 93130.14(a)(3)(A): <i>Identification and description of all necessary equipment:</i> | |
| <u>Equipment:</u> | <u>Location:</u> |
| 1. Emission capture and control system that is CARB and United States Coast Guard approved and acceptable for safe interfacing with tanker vessels per IMO standards | 1. Spudded or moored (for station keeping) barge at vessel stern |
| 93130.14(a)(3)(B): <i>Vessel Utilization</i> | |
| Number of vessels expected to visit the terminal using this strategy (annually): Up to 201 | |

93130.14(a)(3)(C) and 93130.14(a)(3)(D): Specific Berths and Locations

List of each berth and geographic boundary coordinates included in this Plan:

| <u>Specific Berths:</u> | <u>Approximate Geographic Boundary Coordinates*:</u> |
|-------------------------|--|
| 1. Rod 3 | 1. 38.056406, -122.262764 |
| 2. Rod 4 | 2. 38.056607, -122.261740 |
| 3. Rod 5 | 3. 38.056834, -122.260601 |

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

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 facility Marine Operations Manual.

The tides around the Rodeo Marine Terminal can vary significantly within the tide cycles. Current velocities around the terminal regularly exceed 2 knots during flood tide and exceed 3 knots during ebb tide. The maximum flood and ebb tides typically occur within hours of each other and would have to be safely endured by the capture and control vessels during offloading and loading. Local weather conditions can influence water current velocities and increase the actual velocities experienced at the site. Additionally, the water depths at the Rodeo terminal vary significantly and at some locations exceed 65'feet.

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

| <u>Project:</u> | <u>Estimated Completion Date:</u> |
|---|--|
| Third party vendor providing barge-based capture and control system | Within 6 months of CARB and United States Coast Guard regulatory certifications of more than 2 vendors operating in the San Francisco Bay Area at conditions experienced at the Rodeo Terminal |

93130.14(a)(3)(G): Division of responsibilities:

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:

Port:

There is no Port Authority responsibility identified in association with the Rodeo Terminal. There are no United States Coast Guard (USCG) limitations identified at time of submission. Any third-party vendor providing services will comply with these regulations and will not require port or facility infrastructure.

Terminal Operator:

Any emission capture and control system necessary to comply with these regulations shall be provided by a third-party CARB, United States Coast Guard and IMO approved and accepted for safe interfacing with tanker vessels at site conditions at the marine terminal.

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, United States Coast Guard and IMO approved and accepted for safe interfacing with tanker vessels in the San Francisco Bay Area. This is to ensure that competitive bids can be obtained before executing a contract with the successful bidder(s). Due to topside space limitations, land-based systems are not feasible due to hazardous zones and electrification is not feasible due to tanker incompatibility and safety concerns.

The tides around the Rodeo Marine Terminal can vary significantly within the tide cycles. Current velocities around the terminal regularly exceed 2 knots during flood tide and exceed 3 knots during ebb tide. The maximum flood and ebb tides typically occur within hours of each other and would have to be safely endured by the capture and control vessels during offloading and loading. These current velocities are experienced without the influence of local weather and can be exceeded during extreme weather conditions. Additionally, the water depths at the Rodeo Marine terminal vary significantly and at some locations exceed 65 feet. The barge will have to be capable of holding station to control vessel emissions through all site conditions and water depths.

These constraints 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.

SIGNATURE OF TERMINAL OPERATOR


93130.14(a)(4):

By signing below, the Terminal Operator's responsible officer 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 Rodeo Marine Terminal compliance strategy for the At Berth Regulation. Terminal personnel understand this plan is subject to verification by CARB staff.

Name: Richard Harbison

Title: VP, San Francisco Refinery

Signature:



Date:

12/1/2021