



Tesoro Refining & Marketing Company LLC

A subsidiary of Marathon Petroleum Corporation

Martinez Refinery

150 Solano Way

Martinez CA 94553

May 26, 2022

Via Email to shorepower@arb.ca.gov
And Certified Mail

Chief, Transportation and Toxics Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814

**Subject: CCR Title 17 § 93130-93130.22
Revised Terminal Plans
Tesoro Refining & Marketing Company LLC, Martinez Refinery, Facility ID 14628
and 14629**

Dear Executive Officer:

In accordance with California Code of Regulations Title 17, sections 93130-93130.22 Control Measure for Ocean-Going Vessels, Tesoro Refining & Marketing Company LLC ("Tesoro") hereby submits the Revised Terminal Plans for Avon Terminal (Facility ID 14628) and Amorco Terminal (Facility ID 14629).

Please contact Sharon Lim at SYLim@MarathonPetroleum.com or (925) 335-3467 should you have any questions.

Sincerely,

Robert S. Hanks
Refining General Manager

Ecc (w/enclosures): jonathan.foster@arb.ca.gov
heather.arias@arb.ca.gov
bonnie.soriano@arb.ca.gov
acsondes@arb.ca.gov

Enclosures: Tesoro Refining & Marketing Company LLC Terminal Plans

Read Log 8332

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TESORO REFINING & MARKETING COMPANY LLC

TERMINAL PLANS

I. Avon Terminal

II. Amorco Terminal

Tesoro Refining and Marketing Company LLC (TRMC) Avon Wharf At Berth Terminal Plan

This terminal plan has been prepared pursuant Section 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.

1. GENERAL INFORMATION	
Terminal Contact Name: Marjan Jamshidi	
Phone Number: 925-370-3601	Email: MJamshidi@Marathonpetroleum.com
<i>Berths Included in this Plan:</i>	
<u>Name:</u>	<u>Approximate Geographic Boundary Coordinates:*</u>
1. Avon Wharf	1. 38.049165, -122.090473
<i>*The number of berths on a terminal and the spatial positioning of berths are dependent on vessel size; thus, the geographic boundary coordinates are approximates only.</i>	
2. STRATEGY DETAILS	
<i>Strateg(ies) used to comply with the requirements for ocean-going vessels visiting each berth:</i>	
<p>Provided technology is sufficiently developed to operate with an acceptable level of personal and process safety risk, Tesoro Refining and Marketing Company LLC (TRMC) plans to employ the following strategies.</p> <ol style="list-style-type: none"> 1. CARB-Approved Capture and Control (C&C) System as a CARB-Approved Emission Control Strategy (CAECS) 2. CARB-Approved Innovative Concept – See TRMC’s Innovative Concept Application <p>Should tanker vessel owners install equipment that provides a vessel side connection for shore power in the future, TRMC may consider adding new land-based connection systems to supply electricity from the grid to a vessel.</p>	
2.1 [Strategy 1]	
<i>Identification and description of all necessary equipment:</i>	
<u>Equipment:</u>	<u>Location:</u>
<ol style="list-style-type: none"> 1. CARB Approved Capture and Control Systems - will include one or more of the following shore and/or barge unit(s) <ol style="list-style-type: none"> a. Fully contained barge system including connection system and treatment system b. Barge connection system with shore-based treatment system c. Permanent structure connection system with shore-based treatment system 	<ol style="list-style-type: none"> 1. Avon Wharf

d. Mobile land-based connection system with mobile or fixed shore-based treatment system

Number of **vessels** expected to use this strategy (annual): 10

Number of vessel **visits** expected to use this strategy (annual): 54

Berths where equipment will be used:

1. Avon Wharf

Schedule for installing equipment:

Project:

1. CARB Approved Capture and Control Systems

Estimated Completion Date:

- 9/1/2028*: Barge Based Capture & Control ("C&C")
 - C&C estimates assume technology is proven safe, controls all emission sources required in the regulation, and the CARB Executive Officer has approved a system by the end of 2023. Given the complexity of tankers, this timeline is viewed as the least certain and with a reasonable probability of extending beyond 2023.
- 9/1/2030*: Shore-Based Capture & Control ("C&C")
 - C&C estimates assume technology is proven safe, controls all emission sources required in the regulation, and the CARB Executive Officer has approved a system by the end of 2023. Given the complexity of tankers, this timeline is viewed as the least certain and with a reasonable probability of extending beyond 2023.
- 9/1/2030: Shore Power (Terminal Project Only)
 - Shore Power schedule assumes electric utility can meet the proposed construction schedule and grid is sufficient to handle the increased power demand. Estimated completion date does not reflect timeline for ships to convert to connect to shore power.

TRMC has not selected a primary control mechanism and may rely on various technologies at a single terminal to reduce emissions from vessels at TRMC's berths. The technology selection will consider the safety of personnel, the safe passage of adjacent marine traffic, and the significant land use constraints at TRMC's terminals. TRMC is presently engaged in an extensive Feasibility Engineering Analysis investigating each known technology, shore power, shore-based C&C, and barge-based C&C, this analysis will allow for TRMC to identify the most appropriate technologies for each berth. The analysis is scheduled to conclude in the 4th quarter of 2022.

*Any unmitigated risks detailed below may result in a change to the Estimated Completion Date stated above.

- Full resolution of considerations identified in the Safety Study under the CARB grant for C&C Systems for Oil Tanker Project awarded to SCAQMD where TRMC resources are actively supporting advancement as a demonstration partner.
- Full resolution of considerations from future safety studies and hazard assessments which TRMC anticipates and view as necessary to ensure safe operations on tanker vessels
- Stack connection design:
 - C&C providers have not shared technical details for connection to the vessel stacks to TRMC.
 - Ability to connect to as many as six or more stacks at the same time without damaging a vessel's exhaust stacks.
 - Ability to connect to a variable set of stack configurations without damaging the vessel's exhaust stacks.
 - Ability to connect without creating sparks, or designing for electrical continuity
 - Ability of the connection to adjust with vessel draft and pitch changes due to cargo operations
 - Ability of connection system to adequately transport a wide range of flow rates from multiple stacks
- Barge congestion and siting around vessels
 - C&C barges must not interfere with adjacent vessel traffic in the port
 - C&C barges must stay clear of mooring lines of the vessel at berth
 - C&C barges must not interfere with containment boom
 - C&C barge mooring systems must not impact submerged utilities crossing navigational channels
- Adequate emergency preparedness to ensure safety of barge-based system operators near hazardous cargo
- Treatment system performance meets or exceeds emission reduction requirements for all emissions sources that are required to be controlled on tankers
- Construction schedule for multiple systems, including CEQA permitting timelines for land-based systems

2.2 [Strategy 2, if needed]

Identification and description of all necessary equipment:

Equipment:

Location:

1. Innovative concept – see “Innovative Concept Application” submittal

1. Innovative concept – see “Innovative Concept Application” submittal

Number of **vessels** expected to use this strategy (annual): TBD

Number of vessel visits expected to use this strategy (annual): TBD	
<i>Berths where equipment will be used:</i> See "Innovative Concept Application" submittal	
<i>Schedule for installing equipment:</i>	
<u>Project:</u> See "Innovative Concept Application" submittal	<u>Estimated Completion Date:</u> See "Innovative Concept Application" submittal

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

Are there any terminal or port specific berthing restrictions? If yes, please describe.

1. Presently there are no restrictions however dock enhancements necessary to accommodate capture and control systems could necessitate berthing restrictions.
2. Underwater utilities located near the vessel berthing locations could restrict capture and control mooring systems.

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities:

Not applicable at this terminal because there is no port authority.

Responsibility	Port	Terminal
Connect vessels to shore power when visited by a commissioned shore power vessel		
Delays in connecting to shore power from land side		
Commissioning vessels equipped with shore power that is installed on the side of the vessel facing the wharf when berthed.		
If the commissioned shore power vessel is berthed in a way that prevents it from connecting to shore power, the terminal may use a TIE or must provide an alternative CARB Approved Emission Control Strategy (CAECS) compatible with the vessel.		
Controlling emissions at berth without shore power		
Communicate with vessel prior to arrival		
Ensure proper positioning of vessel		
Record data on emission control strategy used		
Submit vessel visit information to CARB per regulation requirement		
Provide an alternative CAECS for vessels to reduce emissions if the CAECS for the berth is unavailable due to construction or repair. Terminals also have the option of using a TIE or remediation fund for construction or repair.		

Initiation of shore power construction including design		
Responsibility to provide equipment or necessary infrastructure at a terminal		
Responsibility to provide equipment or necessary infrastructure outside of the terminal to ensure sufficient power availability		
Responsibility of uncontrolled emissions at berth due to incomplete shore power infrastructure construction		
Responsibility of uncontrolled emissions from repair of shore power infrastructure/equipment or alternative CAECS		
Submission of terminal compliance plan		
Submission of port compliance plan		

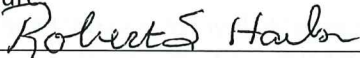
5. SIGNATURE OF TERMINAL OPERATOR

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 [Terminal Operator's] compliance strategy for the At Berth Regulation. [Terminal Operator] understands this plan is subject to verification by CARB staff.

Name: Robert S. Hanks

Title: Refining General Manager

Signature:



Date:

May 26, 2022

Tesoro Refining and Marketing Company LLC (TRMC) Amorco Wharf At Berth Terminal Plan

This terminal plan has been prepared pursuant Section 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.

1. GENERAL INFORMATION	
Terminal Contact Name: Marjan Jamshidi	
Phone Number: 925-370-3601	Email: MJamshidi@Marathonpetroleum.com
<i>Berths Included in this Plan:</i>	
<u>Name:</u>	<u>Approximate Geographic Boundary Coordinates:*</u>
1. Amorco Wharf	1. 38.035564, -122.123111
*The number of berths on a terminal and the spatial positioning of berths are dependent on vessel size; thus, the geographic boundary coordinates are approximates only.	
2. STRATEGY DETAILS	
<i>Strateg(ies) used to comply with the requirements for ocean-going vessels visiting each berth:</i>	
<p>Provided technology is sufficiently developed to operate with an acceptable level of personal and process safety risk, Tesoro Refining and Marketing Company LLC (TRMC) plans to employ the following strategies.</p> <ol style="list-style-type: none"> 1. Low Activity Terminal: Amorco qualifies as a low-activity terminal based on 2021 and expected 2022 vessel visit counts and forecasted vessel traffic. <p>If vessel traffic exceeds the limit for qualification as a Low Activity Terminal, TRMC has included the following strategies as contingencies for compliance.</p> <ol style="list-style-type: none"> 2. CARB-Approved Capture and Control (C&C) System as a CARB-Approved Emission Control Strategy (CAECS) 3. CARB-Approved Innovative Concept – See TRMC’s Innovative Concept Application <p>Should tanker vessel owners install equipment that provides a vessel side connection for shore power in the future, TRMC may consider adding new land-based connection systems to supply electricity from the grid to a vessel.</p>	
2.1 [Strategy 1]	
<i>Identification and description of all necessary equipment:</i>	
<u>Equipment:</u> None	<u>Location:</u> Amorco Wharf
Number of vessels expected to use this strategy (annual):	Less than 20
Number of vessel visits expected to use this strategy (annual):	Less than 20
<i>Berths where equipment will be used:</i>	Amorco Wharf
<i>Schedule for installing equipment:</i>	Not Applicable

2.2 [Strategy 2, Contingency]

Identification and description of all necessary equipment:

Equipment:

1. CARB Approved Capture and Control Systems - will include one or more of the following shore and/or barge unit(s)
 - a. Fully contained barge system including connection system and treatment system
 - b. Barge connection system with shore-based treatment system
 - c. Permanent structure connection system with shore-based treatment system
 - d. Mobile land-based connection system with mobile or fixed shore-based treatment system

Location:

1. Amorcó Wharf

Number of **vessels** expected to use this strategy (annual): TBD

Number of vessel **visits** expected to use this strategy (annual): TBD

Berths where equipment will be used:

1. Amorcó Wharf

Schedule for installing equipment:

Project:

1. CARB Approved Capture and Control Systems

Estimated Completion Date if Necessary:

- 9/1/2028*: Barge Based Capture & Control ("C&C")
 - C&C estimates assume technology is proven safe, controls all emission sources required in the regulation, and the CARB Executive Officer has approved a system by the end of 2023. Given the complexity of tankers, this timeline is viewed as the least certain and with a reasonable probability of extending beyond 2023.
- 9/1/2030*: Shore-Based Capture & Control ("C&C")
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 - C&C barges must stay clear of mooring lines of the vessel at berth

- C&C barges must not interfere with containment boom
- C&C barge mooring systems must not impact submerged utilities crossing navigational channels
- Adequate emergency preparedness to ensure safety of barge-based system operators near hazardous cargo
- Treatment system performance meets or exceeds emission reduction requirements for all emissions sources that are required to be controlled on tankers
- Construction schedule for multiple systems, including CEQA permitting timelines for land-based systems

2.3 [Strategy 3, Contingency, if needed]

Identification and description of all necessary equipment:

Equipment:

1. Innovative concept – see “Innovative Concept Application” submittal

Location:

1. Innovative concept – see “Innovative Concept Application” submittal

Number of **vessels** expected to use this strategy (annual): TBD

Number of vessel **visits** expected to use this strategy (annual): TBD

Berths where equipment will be used:

1. See “Innovative Concept Application” submittal

Schedule for installing equipment:

Project:

See “Innovative Concept Application” submittal

Estimated Completion Date:

See “Innovative Concept Application” submittal

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

Are there any terminal or port specific berthing restrictions? If yes, please describe.

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2. Underwater utilities located near the vessel berthing locations could restrict capture and control mooring systems.

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities:

Not applicable at this terminal because there is no port authority.

Responsibility	Port	Terminal
Connect vessels to shore power when visited by a commissioned shore power vessel if shore power is installed at berth		


Delays in connecting to shore power from land side if shore power is installed at berth		
Commissioning vessels equipped with shore power that is installed on the side of the vessel facing the wharf when berthed if shore power is installed at berth.		
If the commissioned shore power vessel is berthed in a way that prevents it from connecting to shore power, and shore power is installed at the berth, the terminal may use a TIE or must provide an alternative CARB Approved Emission Control Strategy (CAECS) compatible with the vessel.		
Controlling emissions at berth without shore power		
Communicate with vessel prior to arrival		
Ensure proper positioning of vessel		
Record data on emission control strategy used		
Submit vessel visit information to CARB per regulation requirement		
Provide an alternative CAECS for vessels to reduce emissions if the CAECS for the berth is unavailable due to construction or repair. Terminals also have the option of using a TIE or remediation fund for construction or repair.		
Initiation of shore power construction including design		
Responsibility to provide equipment or necessary infrastructure at a terminal		
Responsibility to provide equipment or necessary infrastructure outside of the terminal to ensure sufficient power availability		
Responsibility of uncontrolled emissions at berth due to incomplete shore power infrastructure construction		
Responsibility of uncontrolled emissions from repair of shore power infrastructure/equipment or alternative CAECS		
Submission of terminal compliance plan		
Submission of port compliance plan		

5. SIGNATURE OF TERMINAL OPERATOR

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 [Terminal Operator's] compliance strategy for the At Berth Regulation. [Terminal Operator] understands this plan is subject to verification by CARB staff.

Name: Robert S. Hanks

Title: Refining General Manager

Signature: 

Date: May 26, 2022