

**TESORO LOGISTICS OPERATIONS LLC**  
**TERMINAL PLANS**

***I. Terminal 1***

***II. Terminal 2***

***III. Long Beach Terminal***

# Tesoro Logistics Operations LLC (TLO)\*

## Terminal 1, Long Beach

### 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.

\*Tesoro Logistics Operations LLC is the terminal operator for Carson Cogeneration LLC, the leaseholder with the Port of Long Beach.

1. GENERAL INFORMATION	
Terminal Contact Name: Timothy Hayes	
Phone Number: 562-499-2249	Email: twhayes@marathonpetroleum.com
<i>Berths Included in this Plan:</i>	
<u>Name:</u>	<u>Approximate Geographic Boundary Coordinates:</u>
1. Berth T121	1. 33.75713, -118.21901
<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>	
Provided technology is sufficiently developed to operate with an acceptable level of personal and process safety risk, Tesoro Logistics Operations LLC (TLO) plans to employ the following strategies.	
<ol style="list-style-type: none"> <li>1. Use of current shore power system.</li> <li>2. CARB-Approved Capture and Control System as a CARB-Approved Emission Control Strategy (CAECS)</li> <li>3. CARB-Approved Innovative Concept – See TLO’s Innovative Concept Application for Long Beach</li> </ol>	
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"> <li>1. Shore Power (currently installed on a dedicated dolphin)               <ol style="list-style-type: none"> <li>a. Vessel connection is port side only, connecting at the rear of the vessel</li> <li>b. 60 Hz, 6.6kV, 900A, 10,288kVA</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Terminal 1, Berth T121</li> </ol>
Number of <u>vessels</u> expected to use this strategy (annual): 1	
Number of vessel <u>visits</u> expected to use this strategy (annual): 14	
<i>Berths where equipment will be used:</i>	
<ol style="list-style-type: none"> <li>1. Berth T121</li> </ol>	

<i>Schedule for installing equipment:</i>	
<u>Project:</u> 1. Not applicable	<u>Estimated Completion Date:</u> 1. Not applicable
<b>2.2 [Strategy 2]</b>	
<i>Identification and description of all necessary equipment:</i>	
<u>Equipment:</u> 1. CARB Approved Capture and Control System – 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	<u>Location:</u> 1. Terminal 1, Berth T121
Number of <b>vessels</b> expected to use this strategy (annual): 100	
Number of vessel <b>visits</b> expected to use this strategy (annual): 250	
<i>Berths where equipment will be used:</i> 1. Berth T121	
<i>Schedule for installing equipment:</i>	
<u>Project:</u> 1. CARB Approved Capture and Control System	<u>Estimated Completion Date:</u> Unresolved risks may result in a delay of compliance with the regulation. Construction is expected to commence upon completion of the design and testing of a safe, approved system able to be permitted and produced on a scale necessary to satisfy industry requirements. Present concerns for capture and control systems that have not yet been resolved include: <ul style="list-style-type: none"> <li>• Full resolution of considerations identified in the Safety Study under the CARB grant for Capture and Control Systems for Oil Tanker Project awarded to SCAQMD where TLO resources are actively supporting advancement as a demonstration partner.</li> <li>• Capture and Control providers have not shared technical details for connection to the vessel stacks. The following risks are still unresolved pending evaluation of the final connection design. <ul style="list-style-type: none"> <li>○ Ability to connect to multiple stacks at the same time without damaging a vessel's exhaust stacks.</li> <li>○ Ability to connect to a variable set of stack configurations without damaging the vessel's exhaust stacks.</li> <li>○ Ability to connect without creating sparks, or designing for electrical continuity</li> </ul> </li> </ul>

- Ability of the connection to adjust with vessel draft changes due to cargo operations
- Ability of connection system to adequately transport a wide range of flows from multiple stacks
- Barge congestion and siting around vessels is unresolved. The ability to locate barges to treat vessels must ensure the following:
  - Capture & Control (C&C) barges not interfere with vessel traffic in the port
  - C&C barges stay clear of mooring lines of the vessel at berth
  - C&C barges will not be adversely affected by passing vessel traffic
  - C&C barges not interfere with containment boom
  - C&C barge mooring systems not impact submerged utilities crossing navigational channels
- Adequate emergency preparedness to ensure safety of barge-based system operators in close proximity to hazardous cargo
- Ability to deliver exhaust to a shore-based treatment unit within the acceptable range of critical process variables such as temperature

**2.3 [Strategy 3, 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:

1. See “Innovative Concept Application” submittal

Estimated Completion Date:

1. 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. Vessels are restricted to berthing port side to only.
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:*

Note: this plan does not amend or modify the terms and/or the conditions of Tesoro Refining & Marketing Company LLC's preferential assignment agreement and other agreements with the Port, including without limitation expiration dates, nor does it amend or modify the terms and/or conditions of any agreements of the Port of Long Beach and/or of Tesoro Refining & Marketing Company LLC with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Tesoro Refining & Marketing Company LLC.

	Port	Terminal
Initiation of electrical infrastructure construction including design		✓
Responsibility to provide equipment or necessary electrical infrastructure inside of the terminal		✓
Responsibility to maintain electrical infrastructure inside of the terminal		✓
Responsibility of uncontrolled emissions at berth due to incomplete electrical infrastructure construction		✓
Responsibility of uncontrolled emissions during repair of electrical infrastructure/equipment		✓
Submission of terminal plan		✓
Submission of port plan	✓	

*Are there any contractual limitations applicable to the terminal relevant to enacting the infrastructure? If yes, describe.*

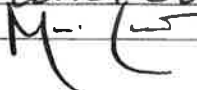
None

*Port approval of responsibilities:*

*Set forth in Section 4 of this At Berth Terminal Plan, the Port's responsible official confirms by signing below that he/she has reviewed the division of responsibilities and agrees to them under penalty of perjury. The Port does not make any representations about the accuracy, feasibility, or legality of Tesoro Refining & Marketing Company LLC proposed compliance strategy set forth in this At Berth Terminal Plan.*

Name: Title: **MARIO CORDERO, EXECUTIVE DIRECTOR**

Port: **PORT OF LONG BEACH**

Signature:  Date: **11/23/21**

**5. SIGNATURE OF TERMINAL OPERATOR**

*By signing below, Carson Cogeneration LLC'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 Carson Cogeneration LLC's compliance strategy for the At Berth Regulation. Carson Cogeneration LLC ] understands this plan is subject to verification by CARB staff.*

Name: Timothy Hayes

Title: Region Manager

Signature:



Date: 11-22-2021

# Tesoro Logistics Operations LLC (TLO)\*

## Terminal 2, Long Beach

### 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.

\*Tesoro Logistics Operations LLC is the terminal operator for Tesoro Refining & Marketing Company LLC, the leaseholder with the Port of Long Beach.

1. GENERAL INFORMATION	
Terminal Contact Name: Timothy Hayes	
Phone Number: 562-499-2249	Email: twhayes@marathonpetroleum.com
<i>Berths Included in this Plan:</i>	
<u>Name:</u>	<u>Approximate Geographic Boundary Coordinates:*</u>
1. Berth B77	1. 33.77580, -118.21300
2. Berth B78	2. 33.77501, -118.21501
<p>Berth B76 handles liquids but is barge only. Berths B79 and B80 do not handle liquids.</p> <p><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></p>	
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, TLO plans to employ the following strategies:</p> <ol style="list-style-type: none"> <li>1. CARB-Approved Capture and Control (C&amp;C) System as a CARB-Approved Emission Control Strategy (CAECS)</li> <li>2. CARB-Approved Innovative Concept – See TLO’s Innovative Concept Application for Long Beach</li> </ol> <p>Should tanker vessel owners install equipment that provides a vessel side connection for shore power in the future, TLO may consider adding new land-based connection systems to supply electricity from the grid to a vessel. However, shore power is not anticipated to be TLO’s solution for the compliance deadline set forth in the regulation.</p>	
<b>2.1 [Strategy 1]</b>	
<i>Identification and description of all necessary equipment:</i>	
<u>Equipment:</u>	<u>Location:</u>
1. CARB Approved Capture and Control Systems - will include one or more of the following shore and/or barge unit(s)	1. Terminal 2, Berths B77, B78

- 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

Number of vessels expected to use this strategy (annual): 25

Number of vessel visits expected to use this strategy (annual): 100

*Berths where equipment will be used:*

- 1. Berth 77
- 2. Berth 78

*Schedule for installing equipment:*

Project:

CARB Approved Capture and Control Systems

Estimated Completion Date:

Unresolved risks may result in a delay of compliance with the regulation. Construction is expected to commence upon completion of the design and testing of a safe, approved system able to be permitted and produced on a scale necessary to satisfy industry requirements. Present concerns for capture and control systems that have not yet been resolved include:

- Full resolution of considerations identified in the Safety Study under the CARB grant for Capture and Control Systems for Oil Tanker Project awarded to SCAQMD where TLO resources are actively supporting advancement as a demonstration partner.
- Capture and Control providers have not shared technical details for connection to the vessel stacks. The following risks are still unresolved pending evaluation of the final connection design.
  - Ability to connect to multiple 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 changes due to cargo operations
  - Ability of connection system to adequately transport a wide range of flows from multiple stacks
- Barge congestion and siting around vessels is unresolved. The ability to locate barges to treat vessels must ensure the following:



- Capture & Control (C&C) barges not interfere with vessel traffic in the port
- C&C barges stay clear of mooring lines of the vessel at berth
- C&C barges will not be adversely affected by passing vessel traffic
- C&C barges not interfere with containment boom
- C&C barge mooring systems not impact submerged utilities crossing navigational channels
- Adequate emergency preparedness to ensure safety of barge-based system operators in close proximity to hazardous cargo
- Ability to deliver exhaust to a shore-based treatment unit within the acceptable range of critical process variables such as temperature

**2.2 [Strategy 2, if needed]**

*Identification and description of all necessary equipment:*

<u>Equipment:</u>	<u>Location:</u>
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

*Berths where equipment will be used:*

1. See “Innovative Concept Application” submittal

*Schedule for installing equipment:*

<u>Project:</u>	<u>Estimated Completion Date:</u>
1. See “Innovative Concept Application” submittal	1. 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. Vessels calling at Berth B78 in crude petroleum and heavy intermediate petroleum product service are restricted to starboard side to only.
2. Future dock enhancements necessary to accommodate capture and control systems could necessitate additional berthing restrictions.
3. Underwater utilities located near the vessel berthing locations could restrict mooring systems for barge-based capture and control.

**4. DIVISION OF ROLES AND RESPONSIBILITIES**

*Division of responsibilities:*

Note: this plan does not amend or modify the terms and/or the conditions of Tesoro Refining & Marketing Company LLC's preferential assignment agreement and other agreements with the Port, including without limitation expiration dates, nor does it amend or modify the terms and/or conditions of any agreements of the Port of Long Beach and/or of Tesoro Refining & Marketing Company LLC with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Tesoro Refining & Marketing Company LLC.

	Port	Terminal
Initiation of electrical infrastructure construction including design		✓
Responsibility to provide equipment or necessary electrical infrastructure inside of the terminal		✓
Responsibility to maintain electrical infrastructure inside of the terminal		✓
Responsibility of uncontrolled emissions at berth due to incomplete electrical infrastructure construction		✓
Responsibility of uncontrolled emissions during repair of electrical infrastructure/equipment		✓
Submission of terminal plan		✓
Submission of port plan	✓	

Are there any contractual limitations applicable to the terminal relevant to enacting the infrastructure? If yes, describe.

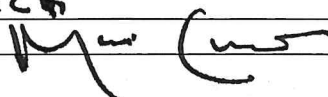
None

Port approval of responsibilities:

Set forth in Section 4 of this At Berth Terminal Plan, the Port's responsible official confirms by signing below that he/she has reviewed the division of responsibilities and agrees to them under penalty of perjury. The Port does not make any representations about the accuracy, feasibility, or legality of Tesoro Refining & Marketing Company LLC proposed compliance strategy set forth in this At Berth Terminal Plan.

Name: Title: **MARIO CORDERO, Executive Director**

Port: **LONG BEACH**

Signature:  Date: **11/19/21**

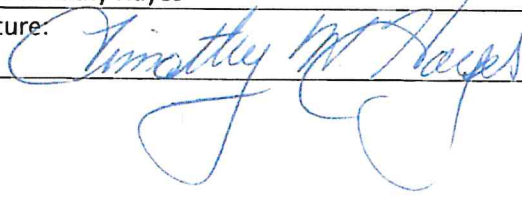
**5. SIGNATURE OF TERMINAL OPERATOR**

*By signing below, Tesoro Logistics Operations LLC'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 Tesoro Logistics Operations LLC's compliance strategy for the At Berth Regulation. Tesoro Logistics Operations understands this plan is subject to verification by CARB staff.*

Name: Timothy Hayes

Title: Region Manager

Signature:



Date:

11-16-2021

## Tesoro Logistics Operations LLC (TLO)\* Long Beach Terminal (LBT), Long Beach 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.

\*Tesoro Logistics Operations LLC is the terminal operator for Tesoro Refining & Marketing Company LLC, the leaseholder with the Port of Long Beach.

1. GENERAL INFORMATION	
Terminal Contact Name: Timothy Hayes	
Phone Number: 562-499-2249	Email: twhayes@marathonpetroleum.com
<i>Berths Included in this Plan:</i>	
<u>Name:</u>	<u>Approximate Geographic Boundary Coordinates:</u> *
1. Berth B84a	1. 33.77236, -118.22173
2. Berth B86	2. 33.77104, -118.22411
Berths B84a and B86 are the only berths at the terminal which receive tanker vessels.	
<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>	
Provided technology is sufficiently developed to operate with an acceptable level of personal and process safety risk, Tesoro Logistics Operations LLC plans to employ the following strategies.	
<ol style="list-style-type: none"> <li>1. CARB-Approved Capture and Control System as a CARB-Approved Emission Control Strategy (CAECS)</li> <li>2. CARB-Approved Innovative Concept – See TLO’s Innovative Concept Application for Long Beach</li> </ol>	
Should tanker vessel owners install equipment that provides a vessel side connection for shore power in the future, TLO may consider adding new land-based connection systems to supply electricity from the grid to a vessel. However, shore power is not anticipated to be TLO’s solution for the compliance deadline set forth in the regulation.	
<b>2.1 [Strategy 1]</b>	
<i>Identification and description of all necessary equipment:</i>	
<u>Equipment:</u>	<u>Location:</u>
1. CARB Approved Capture and Control Systems - will include one or more of the following shore and/or barge unit(s)	1. Long Beach Terminal, Berths B84a, B86

- 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

Number of vessels expected to use this strategy (annual): 70

Number of vessel visits expected to use this strategy (annual): 190

*Berths where equipment will be used:*

- 1. Berth B84a
- 2. Berth B86

*Schedule for installing equipment:*

Project:

CARB Approved Capture and Control Systems

Estimated Completion Date:

Unresolved risks may result in a delay of compliance with the regulation. Construction is expected to commence upon completion of the design and testing of a safe, approved system able to be permitted and produced on a scale necessary to satisfy industry requirements. Present concerns for capture and control systems that have not yet been resolved include:

- Full resolution of considerations identified in the Safety Study under the CARB grant for Capture and Control Systems for Oil Tanker Project awarded to SCAQMD where TLO resources are actively supporting advancement as a demonstration partner.
- Capture and Control providers have not shared technical details for connection to the vessel stacks. The following risks are still unresolved pending evaluation of the final connection design.
  - Ability to connect to multiple 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 changes due to cargo operations
  - Ability of connection system to adequately transport a wide range of flows from multiple stacks

- Barge congestion and siting around vessels is unresolved. The ability to locate barges to treat vessels must ensure the following:
  - Capture & Control (C&C) barges not interfere with vessel traffic in the port
  - C&C barges stay clear of mooring lines of the vessel at berth
  - C&C barges will not be adversely affected by passing vessel traffic
  - C&C barges not interfere with containment boom
  - C&C barge mooring systems not impact submerged utilities crossing navigational channels
- Adequate emergency preparedness to ensure safety of barge-based system operators in close proximity to hazardous cargo
- Ability to deliver exhaust to a shore-based treatment unit within the acceptable range of critical process variables such as temperature

**2.2 [Strategy 2, 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:

1. See “Innovative Concept Application” submittal

Estimated Completion Date:

1. 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 mooring systems for barge-based capture and control.

#### 4. DIVISION OF ROLES AND RESPONSIBILITIES

*Division of responsibilities:*

Note: this plan does not amend or modify the terms and/or the conditions of Tesoro Refining & Marketing Company LLC's preferential assignment agreement and other agreements with the Port, including without limitation expiration dates, nor does it amend or modify the terms and/or conditions of any agreements of the Port of Long Beach and/or of Tesoro Refining & Marketing Company LLC with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Tesoro Refining & Marketing Company LLC.

	Port	Terminal
Initiation of electrical infrastructure construction including design		✓
Responsibility to provide equipment or necessary electrical infrastructure inside of the terminal		✓
Responsibility to maintain electrical infrastructure inside of the terminal		✓
Responsibility of uncontrolled emissions at berth due to incomplete electrical infrastructure construction		✓
Responsibility of uncontrolled emissions during repair of electrical infrastructure/equipment		✓
Submission of terminal plan		✓
Submission of port plan	✓	

*Are there any contractual limitations applicable to the terminal relevant to enacting the infrastructure? If yes, describe.*

None

*Port approval of responsibilities:*

*Set forth in Section 4 of this At Berth Terminal Plan, the Port's responsible official confirms by signing below that he/she has reviewed the division of responsibilities and agrees to them under penalty of perjury. The Port does not make any representations about the accuracy, feasibility, or legality of Tesoro Refining & Marketing Company LLC proposed compliance strategy set forth in this At Berth Terminal Plan.*

Name: Title: *Mario Cordero, EXECUTIVE Director*

Port: *port of LONG BEACH*

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

*M. C.*

Nov 22, 2021

**5. SIGNATURE OF TERMINAL OPERATOR**

*By signing below, Tesoro Logistics Operations LLC'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 Tesoro Logistics Operations LLC's compliance strategy for the At Berth Regulation. Tesoro Logistics Operations understands this plan is subject to verification by CARB staff.*

Name: Timothy Hayes

Title: Region Manager

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*Timothy W Hayes 11-16-2021*

*Handwritten notes at bottom of page, partially illegible.*