Port of
LONG BEACH
THE PORT OF CHOICE

Submitted by email: shorepower@arb.ca.gov

January 31, 2024

Re: Revised Port Plan for the Port of Long Beach

To the California Air Resources Board (CARB):

Attached, please find the revised Port Plan for the Port of Long Beach pursuant to 93130.14(b)(3) of the Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At Berth in a California Port. The 2021 Port Plan was only modified for the Toyota Terminal and Tesoro Terminals.

This Port Plan contains information for 13 marine terminals on Port property subject to the At-Berth Regulation. Of note, this plan does not contain information for the Vopak Terminal at 3601 Dock Street in Long Beach. Vopak is on private land and has no contractual relationship with the Port of Long Beach, nor does the Port own or maintain any infrastructure that might be required for Vopak to comply with this regulation. Please see the attached letter to Vopak sent in February 2021 that confirms this position.

If you have any questions about this Port Plan, please contact Morgan Caswell at morgan.caswell@polb.com or 562-283-7100. We will consider this plan approved if we do not hear from CARB within the 90-day review period. Thank you.

Sincerely,

Mario Cordero
Chief Executive Officer
Port of Long Beach

Port of Long Beach
At Berth Port Plan

This At Berth Port Plan has been prepared pursuant Section 93130.14(b)(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	
Port Contact Name: Morgan Caswell	
Phone Number: 562-283-7100	Email: morgan.caswell@polb.com
Terminals Included in this Plan:	
Name:	Geographic Boundary Coordinates:
1. Total Terminals International	1. 33.76053204408781, -118.22487076709469
2. International Transportation Service	2. 33.74297736441505, -118.19115930587934
3. Pacific Maritime Services (PCT)	3. 33.74120998314381, -118.18805902259558
4. Long Beach Container Terminal	4. 33.750715017805064, -118.21362917771495
5. SSA Terminals (Pier A)	5. 33.774150375998225, -118.23836678179971
6. SSA Terminals (Pier C)	6. 33.774525562376496, -118.20872249590325
7. Chemoil	7. 33.75236775428441, -118.20423598025917
8. SSA Pacific	8. 33.745043809244606, -118.20980617024244
9. Tesoro Logistics (Terminal 2 – B77-B78)	9. 33.77747481991456, -118.20796410354856
10. Tesoro Logistics (LBT – B84-B86)	10. 33.773041933235035, -118.22087704313827
11. Tesoro Logistics (Terminal 1 – T121)	11. 33.756728848857854, -118.21988175389073
12. Petro-Diamond Terminal Company	12. 33.77692842182595, -118.21912813015226
13. Toyota Logistics Services, Inc.	13. 33.77854758030443, -118.22042765696082

2. TERMINAL DETAILS
Terminal details can be found on the subsequent pages.

2.1. Total Terminals International

Identification and description of which strateg(ies) the terminal will use for compliance:

Total Terminals International intends to use shore power as its strategy. Please see **Attachment A** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Not applicable.

Schedule for installing equipment and/or any necessary construction projects:

Not applicable.

Division of responsibilities for enacting infrastructure:

Note: This plan does not amend or modify the terms and/or the conditions of Total Terminal International'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 Total Terminal International with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Total Terminal International.

	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	✓	

Terminal Operator approval of responsibilities:

The responsible official of **Total Terminals International** confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.1 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: William Peratt Title: CEO

Signature: W. Peratt Date: November 19, 2021

2.2. International Transportation Service

Identification and description of which strateg(ies) the terminal will use for compliance:

International Transportation Service intends to use shore power as its strategy. Please see **Attachment B** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Shore power outlets are in place at all berths. The wharf at Berth G236 is being extended and one SPO will be repositioned to support larger vessel connections. See Attachment B for more details.

Schedule for installing equipment and/or any necessary construction projects:

Please see Attachment B for more details.

Project:	Estimated Completion Date:
1. Wharf extension and SPO reposition	1. November 2022

Division of responsibilities for enacting infrastructure:

	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	✓	

Note: This plan does not amend or modify the terms and/or the conditions of ITS'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 ITS with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or ITS.

Terminal Operator approval of responsibilities:

The responsible official of **International Transportation Service** confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.2 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: Christopher Rapp Title: Vice President

Signature: Date: 12/1/21

2.3. Pacific Maritime Services (PCT)

Identification and description of which strateg(ies) the terminal will use for compliance:

Pacific Maritime Services intends to use shore power as its strategy. Please see **Attachment C** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

None.

Schedule for installing equipment and/or any necessary construction projects:

Not applicable.

Division of responsibilities for enacting infrastructure:

Note: This plan does not amend or modify the terms and/or the conditions of Pacific Maritime Services's (PCT) 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 PCT with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or PCT.

	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	✓	

Terminal Operator approval of responsibilities:

The responsible official of **Pacific Maritime Services** confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.3 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: Sal Ferrigno Title: VP

Signature: Date: 11/19/21

2.4. **Long Beach Container Terminal (LBCT)**
Identification and description of which strateg(ies) the terminal will use for compliance: LBCT plans to use shore power as its primary strategy. Please see **Attachment D** for more details.
Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions: None needed.
Schedule for installing equipment and/or any necessary construction projects: No infrastructure needed.
Division of responsibilities for enacting infrastructure: The electrical infrastructure to support shore power plug-in at LBCT LLC, known as Long Beach Container Terminal, as of December 1, 2021 was designed, bid, and built by the Port of Long Beach (POLB). The terminal roles and responsibilities pertaining to the completed electrical infrastructure at LBCT LLC are: • Maintain electrical infrastructure inside terminal lease boundaries. • Control emissions during repair of electrical infrastructure/ equipment. Additional shore power infrastructure is not required at LBCT LLC to meet the January 1, 2023 deadline. However, should additional electrical infrastructure be deemed necessary in the future, the roles and responsibilities of the terminal are: • Initiation of electrical infrastructure construction including design. • Provide equipment or necessary electrical infrastructure inside of the terminal. • Maintain electrical infrastructure inside of the terminal. • Control emissions at berth due to incomplete electrical infrastructure construction. • Control emissions during repair of electrical infrastructure/equipment. The POLB is responsible for submitting the Port Plan, and LBCT LLC is responsible for submitting this Terminal Plan to the California Air Resources Board (CARB). Note: this plan does not amend or modify the terms and/or the conditions of LBCT LLC's preferential assignment agreement and other agreements with the POLB, including without limitation expiration dates, nor does it amend or modify the terms and/or conditions of any agreements of the POLB and/or of LBCT LLC with other entities nor does it modify or diminish any other obligations of other entities to the POLB and/or LBCT LLC.
Terminal Operator approval of responsibilities: The responsible official of **Long Beach Container Terminal** confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.4 of this At Berth Port Plan and agrees to them under penalty of perjury. Name: Bill Carson Title: Director, SSE Signature: Bill Carson Date: 11/29/2021

2.5. SSA Terminals (Pier A)

Identification and description of which strateg(ies) the terminal will use for compliance:

SSA intends to use shore power as its primary compliance strategy. Please see **Attachment E** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

None.

Schedule for installing equipment and/or any necessary construction projects:

Not applicable.

Division of responsibilities for enacting infrastructure:
Note: This plan does not amend or modify the terms and/or the conditions of SSA'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 SSA with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or SSA.

	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	✓	

Terminal Operator approval of responsibilities:
The responsible official of **SSA Terminals Pier A** confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.5 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: SA. Ferrigno Title: VP

Signature: [signature] Date: 11/19/21

2.6. SSA Terminals (Pier C)

Identification and description of which strateg(ies) the terminal will use for compliance:

SSA intends to use shore power as its primary compliance strategy. Please see **Attachment F** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

None.

Schedule for installing equipment and/or any necessary construction projects:

Not applicable

Division of responsibilities for enacting infrastructure:

Note: This plan does not amend or modify the terms and/or the conditions of SSA'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 SSA with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or SSA.

	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	✓	

Terminal Operator approval of responsibilities:
The responsible official of **SSA Terminals Pier C** confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.6 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: SAL FERRIGNO Title: V P

Signature: [signature] Date: 11/19/21

2.7. **Chemoil**

Identification and description of which strateg(ies) the terminal will use for compliance:

Chemoil plans to use shore power as its strategy. Please see **Attachment G** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Chemoil must install the shore power infrastructure. See Attachment G for more details.

Schedule for installing equipment and/or any necessary construction projects:

Project:	Estimated Completion Date:
1. Shore power infrastructure	1. Q3 2024

Division of responsibilities for enacting infrastructure:

	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	✓	

Note: this plan does not amend or modify the terms and/or the conditions of Chemoil Terminals 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 Chemoil Terminals LLC's with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Chemoil Terminals LLC's.

Chemoil Terminals LLC's preferential assignment agreement expires 6/30/2025. Roles and responsibilities may be updated in a new preferential assignment agreement. Any changes to roles and responsibilities will be updated in an amended plan sent to CARB.

Terminal Operator approval of responsibilities:

The responsible official of **Chemoil** Terminal confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.7 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: Vincent R Godfrey Title: Vice President

Signature: Vincent R Godfrey Date: 11/19/21

2.8. **SSA Pacific**

Identification and description of which strateg(ies) the terminal will use for compliance:

SSA Pacific plans to use shore power as its strategy. Please see **Attachment H** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

The terminal must install the shore power infrastructure. Please see **Attachment H** for more details.

Schedule for installing equipment and/or any necessary construction projects:

Project:	Estimated Completion Date:
1. Shore power infrastructure	1. Less than 4 years from project start date

Division of responsibilities for enacting infrastructure:

Note: This plan does not amend or modify the terms and/or the conditions of SSA Pacific'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 SSA Pacific with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or SSA Pacific.

Responsibility	Port	Terminal Operator
Submission of Terminal Plan per Section 93130.14(a)		✓
Submission of Port Plan per Section 93130.14(b)	✓	
Initiation of on-terminal terminal shore power design, permitting and construction (from substation to berth)		✓
Responsibility to provide shore power equipment or necessary shore power infrastructure inside of the terminal		✓
Responsibility to maintain shore power infrastructure inside of the terminal		✓
Responsibility of uncontrolled emissions at berth due to incomplete shore power infrastructure construction (from substation to vessel connection)		✓
Communicate and coordinate with vessel prior to arrival		✓
Ensure proper positioning of vessel		✓
Connect vessels to shore power when called by a commissioned shore power-enabled vessel		✓
Submit vessel visit information and wharfinger data to CARB per regulation requirements	✓	✓
Responsibility of uncontrolled emissions from repair of shore powerinfrastructure/equipment		✓

Terminal Operator approval of responsibilities:

The responsible official of **SSA Pacific** Terminal confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.8 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: Title:

Signature: Date: 11/23/21

2.9. **Tesoro Logistics (Terminal 2-B77-B78)**

Identification and description of which strateg(ies) the terminal will use for compliance:

Tesoro plans to use a CARB-approved capture and control system (CAECS), CARB-approved innovative concept, and terminal shore power system. Please see **Attachment I** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Tesoro must secure a third-party owned and operated, barge-based capture and control system that is CARB approved. In addition, Tesoro will install shore power infrastructure.

Schedule for installing equipment and/or any necessary construction projects:

Project:	Estimated Completion Date:
1. CAECS	1. See Attachment I
2. Innovative Concept	2. See Attachment I
3. Shore Power	3. See Attachment I

Division of responsibilities:

Note: this plan does not amend or modify the terms and/or 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 Tesoro Refining & Marketing 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.

Responsibility	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	✓	

Terminal Operator approval of responsibilities:

The responsible official of Tesoro Logistics (B77-B78) confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.9 of this At Berth Port Plan and agrees to them under penalty of perjury.

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Name: Timothy W. Hayes	Title: Region Manager
Signature: Timothy W. Hayes	Date: 1-26-2024

2.10. Tesoro Logistics (LBT-B84-B86)

Identification and description of which strateg(ies) the terminal will use for compliance:

Tesoro plans to use a CARB-approved capture and control system (CAECS), CARB-approved innovative concept, and terminal shore power system. Please see **Attachment J** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Tesoro must secure a third-party owned and operated, barge-based capture and control system that is CARB approved. In addition, Tesoro will install shore power infrastructure.

Schedule for installing equipment and/or any necessary construction projects:

Project:	Estimated Completion Date:
4. CAECS	4. See Attachment J
5. Innovative Concept	5. See Attachment J
6. Shore Power	6. See Attachment J

Division of responsibilities:

Note: this plan does not amend or modify the terms and/or 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 Tesoro Refining & Marketing 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.

Responsibility	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	✓	

Terminal Operator approval of responsibilities:

The responsible official of Tesoro Logistics (LBT) confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.10 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: Timothy W Hayes	Title: Region Manager
Signature: Timothy W Hayes	Date: 1-26-2024

2.11. Tesoro Logistics (Terminal 1-T121)

Identification and description of which strateg(ies) the terminal will use for compliance:

Tesoro must secure a third-party owned and operated, barge-based capture and control system that is CARB approved. In addition, Tesoro will install shore power infrastructure. Please see **Attachment K** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Tesoro must secure a third-party owned and operated, barge-based capture and control system that is CARB approved. In addition, Tesoro will install shore power infrastructure.

Schedule for installing equipment and/or any necessary construction projects:

Project:	Estimated Completion Date:
7. CAECS	7. See Attachment K
8. Innovative Concept	8. See Attachment K
9. Shore Power	9. See Attachment K

Division of responsibilities:

Note: this plan does not amend or modify the terms and/or conditions of Carson Cogeneration 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 Carson Cogeneration LLC with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Carson Cogeneration LLC.

Responsibility	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	✓	

Terminal Operator approval of responsibilities:

The responsible official of Tesoro Terminal confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.11 of this At Berth Port Plan and agrees to them under penalty of perjury.

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Name: Timothy W. Hayes	Title: Region Manager
Signature: Timothy W. Hayes	Date: 1-26-2024

2.12. Petro-Diamond Terminal Company

Identification and description of which strateg(ies) the terminal will use for compliance:

None. Petro-Diamond is considered a low-use terminal per 93130.10(a)(2). Please see **Attachment L** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Not applicable.

Schedule for installing equipment and/or any necessary construction projects:

Not applicable.

Division of responsibilities for enacting infrastructure:

Port:

Not applicable

Terminal Operator:

Not applicable

Note: This plan does not amend or modify the terms and/or the conditions of Petro-Diamond'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 Petro-Diamond with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Petro-Diamond.

Terminal Operator approval of responsibilities:

The responsible official of Petro-Diamond Terminal confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.12 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name:	ERIC COWARD	Title:	GENERAL MGR.
Signature:		Date:	11/23/2021

2.13. **Toyota Logistics Services**

Identification and description of which strateg(ies) the terminal will use for compliance:

Toyota plans to use a CARB approved capture and control system (CAECS) and shore power. Please see **Attachment M** for more details.

Equipment purchases and/or construction that are in progress or must still be completed to reduce emissions:

Toyota must secure the CAECS and deploy shore power infrastructure, per the plan in Attachment M.

Schedule for installing equipment and/or any necessary construction projects:

Project:	Estimated Completion Date:
1. CAECS	1. See Attachment M
2. Shore Power	2. See Attachment M

Division of responsibilities:

Note: this plan does not amend or modify the terms and/or conditions of Toyota'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 Toyota with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Toyota.

Responsibility	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	✓	

Terminal Operator approval of responsibilities:

The responsible official of Toyota Terminal confirms by signing below that he/she has reviewed the division of responsibilities set forth in Section 2.13 of this At Berth Port Plan and agrees to them under penalty of perjury.

Name: Manny Bansi Title: VP TLS

Signature: Manny Bansi Manny Bansi (Jan 25, 2024 15:33 CST)	Date: 01/25/2024

Attachment A:

Terminal Plan for **Total Terminals International**

California Air Resources Board
Control Measure for Ocean-Going Vessels At Berth
Terminal Plan, Dated October 29, 2021

Port: Long Beach
Terminal: Pier T
Terminal Operator: Total Terminals International, LLC
Terminal Point of Contact: Justin French
Phone: (562) 256-2752

Purpose

In response to the "Final Regulation Order, Control Measure For Ocean-Going Vessels At Berth" Section 93130.14, this document is intended to serve as the Terminal Plan for Total Terminals International, LLC (TTI).

Overview

TTI currently services container ships at its facility located at Pier T within the Port of Long Beach. Pursuant to the new Control Measure, Section 93130.14, TTI intends to utilize shore power connections as the control strategy for achieving compliance for all ocean-going container vessels that visit Pier T under this Control Measure.

Terminal Plan Details

TTI submits this Terminal Plan in accordance with Section 93130.14 (3) for the implementation of the new Control Measure, pursuant to sub-sections (A) through (H) below:

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

- TTI Response – Please reference the below Table 1 which identifies and describes the necessary equipment.

Table 1	
Identification / Description of Necessary Equipment	• SPO 2 – Shore power vault located on wharf • SPO 3 – Shore power vault located on wharf • SPO 5 – Shore power vault located on wharf • SPO 6 – Shore power vault located on wharf • SPO 8 – Shore power vault located on wharf • SPO 9 – Shore power vault located on wharf • SPO 11 – Shore power vault located on wharf • SPO 12 – Shore power vault located on wharf • SPO 14 – Shore power vault located on wharf • SPO 15 – Shore power vault located on wharf • SPO 16 – Shore power vault located on wharf • SPO 17 – Shore power vault located on wharf

(B) Number of vessels expected to visit the terminal using the strategy

- TTI Response - Current forecasts reflect 156 container vessel calls are anticipated at TTI annually, all of which are expected to use shore power as the control strategy.

(C) List of each berth with geographic boundary coordinates

- TTI Response –
  - Berth 134: 33.754570,-118.232231 to 33.755577,-118.228825
  - Berth 136: 33.753387,-118.236274 to 33.754570,-118.232231
  - Berth 138: 33.752204,-118.240317 to 33.753387,-118.236274
  - Berth 140: 33.751021,-118.244360 to 33.752204,-118.240317

(D) Identify berth(s) where equipment will be used

- TTI Response –
  - Berth 134
  - Berth 136
  - Berth 138
  - Berth 140

(E) Terminal/port specific berthing restrictions

- TTI Response - While TTI has four identified berths (134, 136, 138, 140), only 3 container vessels can be berthed alongside the wharf at any point in time due to the large size of the vessels.

(F) Schedule for installing equipment

- TTI Response – Not applicable, as all equipment is currently installed.

(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

- TTI Response – Please see Table 2 below for the division of responsibilities. There are not expected to be any contractual limitations.

Table 2

	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	✓	

Note: This plan does not amend or modify the terms and/or the conditions of TTI'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 TTI with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or TTI.

(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.*

- TTI Response – Not applicable, as TTI is not claiming a physical and/or operational constraint.

Port Approval of Responsibilities

Set forth in Section G 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 Total Terminals International, LLC's proposed compliance strategy set forth in this At Berth Terminal Plan.

Name of Port's Responsible Official	Signature of Port's Responsible Official	Date
MARIO CORDERO		11/17/21

Terminal Approval of Responsibilities

By signing below, Total Terminals International, 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 Total Terminals International, LLC's compliance strategy for the At Berth Regulation. Total Terminals International, LLC understands this plan is subject to verification by CARB staff.

Name of Terminal's Responsible Official	Signature of Terminal's Responsible Official	Date
William Peratt		10/29/2021

Attachment B:

Terminal Plan for **International Transportation Service**

INTERNATIONAL TRANSPORTATION SERVICE, LLC (ITS)
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: Christopher Rapp

Phone Number: 562.590.6839 | **Email:** christopher.rapp@itslb.com

Berths Included in this Plan:

Name:	Approximate Geographic Boundary Coordinates:*
1. G227	1. G227: 33.44.'47.93"N 118.11'56.89" W
2. G232	2. G232: 33.44'38.41" N 118.12'05.59" W
3. G235	3. G235: 33.44'47.93" N 118.11'49.78" W
4. G236	4. G236: 33.44'38.89" N 118.11'41.19" W

**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

Strategy(ies) used to comply with the requirements for ocean-going vessels visiting each berth:

1. Shorepower

2.1 [Strategy 1]

Identification and description of all necessary equipment:

Shore power outlets (SPOs) are in place at all berths. The wharf at G236 is being extended, and construction includes one repositioned SPO to support larger vessel connections.

Equipment:	Location:
1. Shorepower Outlet (SPO)	1. Wharf

Number of **vessels** expected to use this strategy (annual): As many as capable (Subject to change)

Number of vessel **visits** expected to use this strategy (annual): As many as capable (Subject to change)

Berths where equipment will be used:

1. G232 (5 SPOs)
2. G235 (1 SPO)
3. G236 (6 SPOs)

Schedule for installing equipment:

Project:	Estimated Completion Date:
1. G236 Wharf Extension (includes 1 repositioned SPO to facilitate	1. November, 2022

connections for larger vessels in the future)

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

- *All ITS shorepower berths are separate and not linear. Therefore, ITS is limited to the berth capacity and ship lengths.*
- *ITS connects on Port Side.*

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities for enacting infrastructure:

Table 1 – Unless otherwise agreed	Port	Terminal
1. Initiation of electrical infrastructure construction including design		✓
2. Responsibility to provide equipment or necessary electrical infrastructure inside of the terminal		✓
3. Responsibility to maintain electrical infrastructure inside of the terminal		✓
4. Responsibility of uncontrolled emissions at berth due to incomplete electrical infrastructure construction		✓
5. Responsibility of uncontrolled emissions during repair of electrical infrastructure/equipment		✓
6. Submission of terminal plan		✓
7. Submission of port plan	✓	

Note: this plan does not amend or modify the terms and/or the conditions of ITS'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 ITS with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or ITS.

The G236 wharf extension project is led by the Port of Long Beach. As part of the G236 Wharf extension project, the Port is responsible for designing and repositioning one SPO to support larger ship connections. ITS is responsible for providing space and access for Port contractors.

Are there any contractual limitations applicable to the terminal relevant to enacting the infrastructure? If yes, describe. *Not at this time.*

Port approval of responsibilities:

The Port's responsible officer confirms by signing below that he/she has reviewed the division of responsibilities set forth in Sec 4 of this At Berth Terminal Plan and agrees to them under penalty of perjury. The Port does not make any representations or attestations about the accuracy, feasibility, or

legality of the Terminal Operator's proposed compliance strategy set forth in this At Berth Terminal Plan.

Name: Mario Cordero	**Title:** Executive Director
Port: Port of Long Beach	
Signature:	**Date:** 12/01/2021

5. SIGNATURE OF TERMINAL OPERATOR

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

Name: Christopher Rapp	**Title:** Vice President
Signature:	**Date:** 12/1/21

Attachment C:

Terminal Plan for Pacific Maritime Services

Pacific Maritime Services, LLC
(also known as Pacific Container Terminal (PCT))
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:	
Phone Number:	Email:
Berths included in this Plan: Name: 1. J245 2. J266 3. J270	Approximate Geographic Boundary Coordinates:* 1. Berth 0-2000 Feet (33.44.25 N, 118.11.53 W) 2. Berth 0-1450 Feet (33.44.11 N, 118.11.31 W) 3. Berth 1450- 2600 Feet (33.44.11N, 118.11.19 W)
**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	
Strategy(ies) used to comply with the requirements for ocean-going vessels visiting each berth: 1. SHORE POWER ONLY (SPO)	
2.1 [Strategy 1]	
Identification and description of all necessary equipment: Equipment: 1. Existing Shore Power Outlets	Location: 1. Shore/Wharf
Number of vessels expected to use this strategy (annual): 50	
Number of vessel visits expected to use this strategy (annual): 125	
Berths where equipment will be used: 1. LB245 2. LB266 3. LB270	
Schedule for installing equipment: ***INSTALLATION COMPLETE/ NO SCHEDULE NEEDED***	
Project: Not applicable	Estimated Completion Date: Not applicable

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

LB245- PORT SIDE ONLY
LB266- STARBOARD SIDE ONLY
LB270- STARBOARD SIDE ONLY

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities for enacting infrastructure:

Note: this plan does not amend or modify the terms and/or the conditions of Pacific Maritime Services, 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 Pacific Maritime Services, LLC with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Pacific Maritime Services, 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 currently known.**
Port approval of responsibilities: Set forth in Section 4 of this At Berth Terminal Plan, the Port's responsible officer 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 or attestations about the accuracy, feasibility, or legality of Pacific Maritime Services, LLC's proposed compliance strategy set forth in this At Berth Terminal Plan. Name: MARIO CORDERO Title: Executive Director Port: Signature: Date: Nov 17, 2021

5. SIGNATURE OF TERMINAL OPERATOR
By signing below, Pacific Maritime Services, LLC'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 Pacific Maritime Services, LLC's compliance strategy for the At Berth Regulation. Pacific Maritime Services, LLC understands this plan is subject to verification by CARB staff. Name: Stan Ferris Title: VP Signature: Date: 10/26/21

Attachment D:

Terminal Plan for **Long Beach Container Terminal**

Port of LONG BEACH
THE PORT OF CHOICE

Long Beach Container Terminal

LBCT LLC
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: Long Beach Container Terminal (LBCT LLC)	
Phone Number: 562-951-6000	Email: POC: sse@lbct.com
Berths Included in this Plan: Name: 1. E22 2. E24 3. E26	Approximate Geographic Boundary Coordinates:* 1. 33.75435 – 118.21552 2. 33.75815 – 118.21590 3. 33.75952 – 118.214781
**The number of berths on a terminal and the spatial positioning of berths are dependent on vessel size; thus, the geographic boundary coordinates are approximating only.*	

2. STRATEGY DETAILS	
Strategy(ies) used to comply with the requirements for ocean-going vessels visiting each berth: 1. shore power LBCT LLC will also consider the use of other CARB-approved emission control strategies during extenuating circumstances, such as the arrival of ships without shore power capabilities and on-terminal shore power infrastructure repair. However, shore power will remain LBCT LLC's primary strategy for compliance.	
2.1 **[Strategy 1]**	
Identification and description of all necessary equipment:	
Equipment: 1. electrical infrastructure and outlet	Location: 1. wharf

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. E22
2. E24
3. E26

Schedule for installing equipment:

Project:	Estimated Completion Date:
1. electrical infrastructure and outlet	1. In place

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

Are there any terminal or port specific berthing restrictions? If yes, please describe.
No current restrictions

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities for enacting infrastructure:
The electrical infrastructure to support shore power plug-in at LBCT LLC, known as Long Beach Container Terminal, as of December 1, 2021 was designed, bid, and built by the Port of Long Beach (POLB). The terminal roles and responsibilities pertaining to the completed electrical infrastructure at LBCT LLC are:

- Maintain electrical infrastructure inside terminal lease boundaries.
- Control emissions during repair of electrical infrastructure/ equipment.

Additional shore power infrastructure is not required at LBCT LLC to meet the January 1, 2023 deadline. However, should additional electrical infrastructure be deemed necessary in the future, the roles and responsibilities of the terminal are:

- Initiation of electrical infrastructure construction including design.
- Provide equipment or necessary electrical infrastructure inside of the terminal.
- Maintain electrical infrastructure inside of the terminal.
- Control emissions at berth due to incomplete electrical infrastructure construction.
- Control emissions during repair of electrical infrastructure/equipment.

The POLB is responsible for submitting the Port Plan, and LBCT LLC is responsible for submitting this Terminal Plan to the California Air Resources Board (CARB).

Note: this plan does not amend or modify the terms and/or the conditions of LBCT LLC's preferential assignment agreement and other agreements with the POLB, including without

limitation expiration dates, nor does it amend or modify the terms and/or conditions of any agreements of the POLB and/or of LBCT LLC with other entities nor does it modify or diminish any other obligations of other entities to the POLB and/or LBCT LLC.

Are there any contractual limitations applicable to the terminal relevant to enacting the infrastructure? If yes, describe. There are no identified contractual limitations.

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

Name: Mario Cordero	Title: Executive Director
Port: Port of Long Beach	
Signature: Mario Cordero	Date: November 22, 2021

5. SIGNATURE OF TERMINAL OPERATOR

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

Name: Bill Carson	Title: Director, SSE
Signature:	Date: 11/1/2021

Attachment E:

Terminal Plan for **SSA Terminals Pier A**

SSA Terminals (Pier A), LLC (SSA)
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: Mike Patalano

Phone Number: (562) 495-8657	**Email: Mike.Patalano@SSAMarine.com**

Berths Included in this Plan:

Name:	Approximate Geographic Boundary Coordinates:*
1. A90	1. 33.46.10 N, 118.13.45 W
2. A92	2. 33.46.08 N, 118.13.56 W
3. A94	3. 33.46.05 N, 118.14.07 W

**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

Strategy(ies) used to comply with the requirements for ocean-going vessels visiting each berth:

1. **SHORE POWER ONLY (SPO)**

2.1 [Strategy 1]

Identification and description of all necessary equipment:

Equipment:	Location:
1. Existing Shore Power Outlets	1. Shore/Wharf

Number of vessels expected to use this strategy (annual): 60

Number of vessel visits expected to use this strategy (annual): 350

Berths where equipment will be used:

1. **A90**
2. **A92**
3. **A94**

Schedule for installing equipment: ***INSTALLATION COMPLETE/ NO SCHEDULE NEEDED***

Project:	Estimated Completion Date:
Not Applicable	**Not Applicable**

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

A90: Port Side Only
A92: Port Side Only
A94: Port Side Only

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities for enacting infrastructure:

Note: this plan does not amend or modify the terms and/or the conditions of SSA'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 SSA with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or SSA.

	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 currently known.**

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 SSA Terminals (Pier A), LLC's proposed compliance strategy set forth in this At Berth Terminal Plan.

Name:	MARIO CORDERO	Title:	Executive Director
Port:			
Signature:		Date:	NOV 17, 2021

5. SIGNATURE OF TERMINAL OPERATOR

By signing below, SSA Terminals, (Pier A), 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 SSA Terminals (Pier A), LLC's compliance strategy for the At Berth Regulation. SSA Terminals (Pier A), LLC. understands this plan is subject to verification by CARB staff.

Name:	SAL FERRIGNO	Title:	VP
Signature:		Date:	10/26/21

Attachment F:

Terminal Plan for **SSA Terminals (Pier C)**

Port of
LONG BEACH
THE PORT OF CHOICE

SSA Terminals, LLC (SSA)
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: Ryan Baird	
Phone Number: (562) 495-8657	Email: Ryan.Baird@SSAMarine.com
Berths Included in this Plan: Name: 1. C62 2. C60	Approximate Geographic Boundary Coordinates:* 1. Berth 900-1800 Feet (33.46.11 N, 118.13.03 W) 2. Berth 0-899 Feet (33.46.13 N, 118.12.57 W)
**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	
Strateg(ies) used to comply with the requirements for ocean-going vessels visiting each berth: 1. SHORE POWER ONLY (SPO)	
2.1 [Strategy 1]	
Identification and description of all necessary equipment: Equipment: 1. Existing Shore Power Outlets	Location: 1. Shore/Wharf
Number of vessels expected to use this strategy (annual): 12	
Number of vessel visits expected to use this strategy (annual): 104	
Berths where equipment will be used: 1. C62 2. C60	
Schedule for installing equipment: ***INSTALLATION COMPLETE/ NO SCHEDULE NEEDED*** Project: Not Applicable	Estimated Completion Date: Not Applicable

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

C62- STARBOARD SIDE ONLY
C60- STARBOARD SIDE ONLY

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities for enacting infrastructure:

Note: this plan does not amend or modify the terms and/or the conditions of SSA'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 SSA with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or SSA.

	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 currently known.**

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 SSA Terminal, LLC's proposed compliance strategy set forth in this At Berth Terminal Plan.

Name: MARIO CORDERO Title: Executive Director

Port:

Signature: Date: NOV 17, 2022

5. SIGNATURE OF TERMINAL OPERATOR

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

Name: SAL FERRIGNO Title: VP

Signature: Date: 10/26/21

Attachment G:

Terminal Plan for **Chemoil**

Port of LONG BEACH
THE PORT OF CHOICE

Chemoil Terminals LLC
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: Justin Avril

Phone Number: 562-485-4205	Email: justin.avril@chemoil.com

Berths Included in this Plan:

Name:	Approximate Geographic Boundary Coordinates:*
1. Long Beach Berth F209	1. 33.74 North 118.21 W

**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

Strateg(ies) used to comply with the requirements for ocean-going vessels visiting each berth:

1. Shore Power.

2.1 Shore Power

Identification and description of all necessary equipment:

Equipment:	Location:
1. Conduit and power conductors from Pier F Street to transformer location at B-F209	1. Wharf
2. Stepdown transformer and switchgear.	2. Wharf
3. Cable reel with cables and receptacles.	3. Wharf
4. Communications cable reel for shore to ship power systems communication.	4. Wharf
5. Lifting boom to lift power cables and receptacles up to the vessel from the berth.	5. Wharf

Number of **vessels** expected to use this strategy (annual): 65

Number of vessel **visits** expected to use this strategy (annual): 65

Berths where equipment will be used:

1. Long Beach Berth F209.

Schedule for installing equipment:

Project:	Estimated Completion Date:
1. All equipment listed above.	1. Q3 2024

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

Vessels berth Port Side to the dock and berth is restricted to 39 feet 6 inches draft on all vessels.

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities for enacting infrastructure:

	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	✓	

Note: this plan does not amend or modify the terms and/or the conditions of Chemoil Terminals LLC's lease 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 Chemoil Terminals LLC's with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Chemoil Terminals LLC's.

Chemoil Terminals LLC's lease expires 06/30/2025. Roles and responsibilities may be updated in a new or amended lease agreement. Any changes to roles and responsibilities will be updated in an amended plan sent to CARB.

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

None known by Chemoil Terminals LLC.

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 Chemoil Terminals LLC's 's proposed compliance strategy set forth in this At Berth Terminal Plan.

Name: MARIO CORDERO Title: Executive Director

Port: Long Beach

Signature: Date: 11/22/21

5. SIGNATURE OF TERMINAL OPERATOR	
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 Chemoil Terminals LLC compliance strategy for the At Berth Regulation. Chemoil Terminals LLC understands this plan is subject to verification by CARB staff.	
Name: Vincent P. Godfrey	Title: Vice President
Signature:	Date: 11/19/21

Attachment H:

Terminal Plan for **SSA Pacific**

Terminal Plan

Pier F, Port of Long Beach; Terminal Operator and Responsible Official: SSA Pacific Inc, Bill Fitz
on behalf of the two Pier F lessees (Crescent Terminals, Inc. and CSA Equipment Company, LLC)

Pier F is a 22-acre (8.9 hectare) breakbulk cargo terminal with four contiguous berths (designated 204, 205, 206 and 207) totaling 2,400 linear feet (732 meters) operated by SSA Pacific.

Pier F Strategy: *Provide shore power to Pier F allowing for two simultaneously berthed roll-on/roll-off (RoRo) vessels and accommodate vessel operators' use of CARB-approved innovative solutions when vessels aren't equipped to plug in to shore power*

The proposed new shore power infrastructure investments will take significant time and resources to implement and RoRo vessel owners calling Pier F will need to retrofit or build new vessels with vessel-side shore power-capable connections. As such, to augment our strategy within the near-term compliance timeline, we encourage and embrace third-party vendors that can achieve CARB approvals for their innovative concept solutions (see Item "H" below) to provide services to vessel operators when shore power is not feasible at the berth.

A. Identification and Description of all Necessary Equipment

Outside of the Pier F terminal (Utility Provider and Port Authority responsibility), equipment required to extend shore power to the terminal includes:

	Location			
Item/Description	Vessel	Wharf	Shore	Elsewhere
High-Voltage (HV) supply system				✓
HV distribution (right-of-way, overhead or underground lines) from supply to Shore Power Vault System				✓

Within the Pier F terminal (Terminal Operator responsibility), equipment to extend shore power to the berths includes:

	Location			
Item/Description	Vessel	Wharf	Shore	Elsewhere
Shore Power Substation			✓	
Electrical Controls to comply with IEC/IEEE 80005-1 and SEC regulations			✓	
Medium Voltage Conduit and Wiring		✓	✓	
Shore Power Vaults		✓		
Cable Management System		✓		
Vessel-side infrastructure to connect to shore power system *(provided by vessel owner, retrofit or newbuild vessels, shore power capable)*	✓			

B. Forecasted Vessel Volume

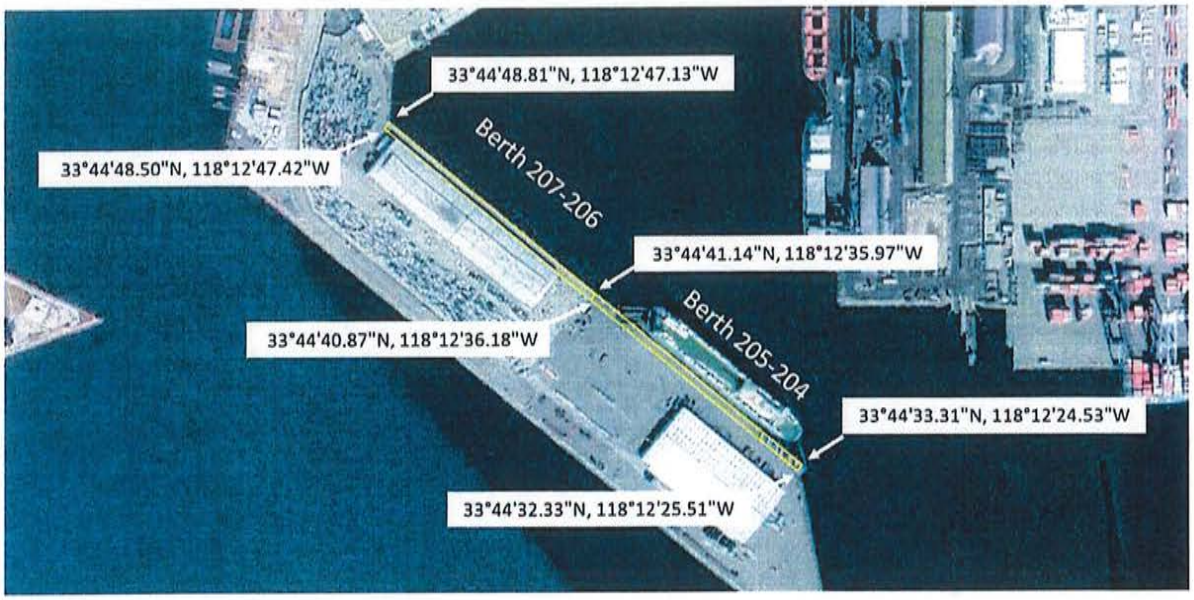
Pier F's 5-year vessel call forecast horizon (2022-2027) anticipates 95-100 vessels per year:

- 35-40 WWL (26-hour call, berth 204-205)
- 60 pure RoRo (12-hour call, berth 206-207)

Note: due to the typical RoRo vessel length overall (LOA), the combined 204-205 berths are considered one RoRo berthing position and the combined 206-207 berths are considered one RoRo berth position, allowing Pier F to berth and operate two RoRo vessels simultaneously.

C. List of Each Berth with Coordinates

Pier F, Port of Long Beach, California



D. Berth Location

Compliance equipment will be used at the Port of Long Beach's Pier F, Berths 204-205 and 206-207.

E. Terminal/Port-Specific Berthing Restrictions

Pier F anticipates no Terminal or Port-specific berthing restrictions.

F. Implementation Schedule

New on-terminal shore power equipment installations will be required at the berths to serve up to two RoRo ships simultaneously. Upon plan approval, we expect the design, permitting, bid, construction, and commissioning of the shore power infrastructure to take up to four years.

RoRo Shore Power Element	Responsibility	Planning, Permitting and Design Duration	Construction and Commissioning Duration	Total Duration
On-Terminal and Berth Infrastructure (at berths 206-207 and 204-205)	Terminal Operator	Up to 2 Years	Up to 2 Years	Less than 4 Years *Allows for overlap of Planning/Design/ Permitting with Construction*

G. Division of Responsibilities: Terminal Operator and the Port

Considerations for implementing shore power stemming from CARB's At-Berth Regulations has been specifically incorporated into the "Third Amendment to Preferential Assignment Agreement HD-6517", the lease and operating agreement for the use of the Port of Long Beach Pier F marine terminal facility by Crescent Terminals, Inc. and CSA Equipment Company LLC, whom collectively has assigned SSA Pacific as the Terminal Operator.

Responsibility	Port	Terminal Operator
Submission of Terminal Plan per Section 93130.14(a)		✓
Submission of Port Plan per Section 93130.14(b)	✓	
Initiation of on-terminal terminal shore power design, permitting and construction (from substation to berth)		✓
Responsibility to provide shore power equipment or necessary shore power infrastructure inside of the terminal		✓
Responsibility to maintain shore power infrastructure inside of the terminal		✓
Responsibility of uncontrolled emissions at berth due to incomplete shore power infrastructure construction (from substation to vessel connection)		✓
Communicate and coordinate with vessel prior to arrival		✓
Ensure proper positioning of vessel		✓
Connect vessels to shore power when called by a commissioned shore power-enabled vessel		✓
Submit vessel visit information and wharfinger data to CARB per regulation requirements	✓	✓
Responsibility of uncontrolled emissions from repair of shore power infrastructure/equipment		✓

Note: this plan does not amend or modify the terms and/or the conditions of SSA Pacific'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 SSA Pacific with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or SSA Pacific.

Port of
LONG BEACH
THE PORT OF CHOICE

Port approval of responsibilities:
Set forth in Section G 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 SSA Pacific's proposed compliance strategy set forth in this At Berth Terminal Plan.

Name:	MARIO CORDERO	Title:	Executive Director
Port:			
Signature:		Date:	Nov 17, 2021

Port of
LONG BEACH
THE PORT OF CHOICE

H. Other Emission Control Options

As a Terminal Operator, our primary concern is providing safe and efficient operations compliant with all regulatory requirements. **We do not assert that a physical and/or operational constraint will delay our ability to implement our preferred shore power strategy.** However, the time required to design, permit and construct the solution by the January 1, 2025 Compliance Start Date will be challenging. As such we remain fully supportive and enthusiastic that third-party providers will respond to market demand and develop CARB-approved emission control solutions providing on-demand services to Vessel Operators when calling Pier F, for example:

- Fuel Cell Technology – Vessel-side or shore-based modular, self-contained and portable zero- emission fuel cell systems connecting to vessels in much the same manner as grid-based shore-power solutions. Fuel cell solutions would require vessel retrofit. The terminal operator would accommodate space requirements for the fuel cell arrays and potentially their associated hydrogen production and storage facilities.
- Capture and Control Systems – Barge-based or shore-based technology configurations designed to capture and treat exhaust emissions from ocean-going RoRo vessels while at berth, regardlessof that vessel's stack design or funnel characteristics. Capture and Control vendors would coordinate services directly with the vessel's agent and vessel operator. The Terminal Operator would accommodate the vendor's services while the vessel is at berth.

Terminal Responsible Official Signature	
By signing below, SSA Pacific's Responsible Official confirms under penalty of perjury that he has reviewed this Terminal Plan and is submitting this Terminal Plan as SSA Pacific's compliance strategy for the At Berth Regulation on behalf of SSA Pacific Inc and the two lessees of Pier F (Crescent Terminals, Inc and CSA Equipment Company, LLC). SSA Pacific understands this plan is subject to verification by CARB staff.	
Name: Bill Fltz	Title: Regional Vice President, SSA Pacific Inc.
Signature: 	Date: 11/23/2021

Attachment I:

Terminal Plan for **Tesoro Logistics (Terminal 2)**

Tesoro Logistics Operations LLC
1300 Pier B Street
Long Beach CA 90813

January 31, 2024

Email: shorepower@arb.ca.gov
California Air Resources Board
Transportation and Toxics Division
Freight Activity Branch,
Marine Strategies Section
P.O Box 2815
Sacramento, CA 95812

Subject: CCR Title 17 Section 93130 – 93130.22 Revised Terminal Plans

Dear Executive Officer:

In accordance with the California Code of Regulations Title 17, sections 93130 – 93130.22 Control Measure for Ocean-Going Vessels At Berth, Tesoro Logistics Operations LLC (TLO) hereby submits the Revised Terminal Plans for Terminal 1, Terminal 2, and Long Beach Terminal.

If questions arise pertaining to the submission of TLO's Revised Terminal Plans, please contact Lynnea Giordani at LLGiordani@Marathonpetroleum.com.

Sincerely,

Timothy W. Hayes
Region Manager

Cc: acsondes@arb.ca.gov
Bonnie.Soriano@arb.ca.gov
Jonathan.Foster@arb.ca.gov

Tesoro Logistics Operations LLC (TLO)*
Terminal 2, Long Beach
At Berth Terminal Plan

This terminal plan has been prepared pursuant to 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

Berths Included in this Plan:

Name:	Approximate Geographic Boundary Coordinates:*
1. Berth B77	1. 33.77580, -118.21300
2. Berth B78	2. 33.77501, -118.21501

Berth B76 handles liquids but is barge only.
Berths B79 and B80 do not handle liquids.

**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

Strategies used to comply with the requirements for ocean-going vessels visiting each berth:

Provided technology is sufficiently developed to operate with an acceptable level of personal and process safety risk, TLO plans to employ the following strategies:

1. Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System as a CARB-Approved Emission Control Strategy (CAECS)
2. CARB-Approved Innovative Concept – See TLO's Innovative Concept Application for Long Beach
3. Terminal Shore Power System - land-based system to supply electricity from the grid to a vessel

TLO may rely on a combination of these strategies to help reduce emissions from vessels at TLO's berths.

2.1 Strategy 1: Vendor-Provided and CARB-Approved Barge-Based Capture and Control

Identification and description of all necessary equipment:

Equipment:	Location:
1. Vendor-Provided and CARB-Approved Barge-Based Capture and Control System a. Fully contained barge system including collection system and treatment system	1. Terminal 2, Berths B77, B78

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:

Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System

Estimated Completion Date:

As of the date of this plan, a Vendor-Provided and CARB-Approved barge-based capture and control system does not exist. The estimated completion date is projected based on current knowledge and development status of the systems being proposed.

- 9/1/2027*
    - C&C estimate assumes technology is proven safe, controls all emission sources required in the Regulation, and the CARB Executive Officer has approved a minimum of two independent vendors by the end of 2024.

*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 TLO resources are actively supporting advancement as a demonstration partner.
- Full resolution of considerations from future safety studies and hazard assessments which TLO anticipates and view as necessary to ensure safe operations on tanker vessels
- Stack connection/collection design demonstrates:
    - Ability to capture emissions from a variable set of stack configurations without damaging the vessel's exhaust stacks.
    - Ability to capture emissions without introducing backpressure in the vessels exhaust systems.

	○ Ability to capture emissions without creating sparks (electrical continuity) ○ Ability of the connection/collection design to accommodate vessel draft and pitch changes due to cargo operations ○ Ability of connection/collection system to adequately transport a wide range of flow rates from multiple stacks ○ Ability to capture emissions without placing an individual in harm's way • Barge congestion and siting around vessels ○ C&C barges must not interfere with adjacent vessel traffic in the port ○ C&C barges must not interfere with containment boom ○ C&C barge mooring systems must not impact submerged utilities crossing navigational channels ○ C&C barge must not hinder the vessel from being able to meet California State Lands 30-minute departure requirements • Implementation of 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 • To prevent monopolization of services, a minimum of two vendors needs to be approved.
Physical or Operational Constraints <u>Project:</u> Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System	<u>Constraints:</u> As of the date of this plan, a Vendor-Provided and CARB-Approved barge-based capture and control system does not exist. Barge-based capture and control systems are still under development for tanker vessels. Until the systems are developed and demonstrated, a complete list of constraints

cannot be fully assessed and finalized. The following list is based on current knowledge of the systems being proposed and may be amended once a system has been demonstrated and approved.

- Physical Constraints
    - Impedance or blockage of traffic in the channel
- Operational Constraints
    - Lack of safe and/or readily available CARB-approved barge-based capture and control systems
    - Lack of tug availability to move CARB-approved barge-based capture and control systems around the port(s)/terminal(s)
    - Lack of adequate safeguards of the CARB-approved barge-based capture and control system
    - Incompatibility between the design of the CARB-approved capture and control barge and the terminal/vessel. This includes, but is not limited to:
        - Undersized C&C treatment system, leading to an inability to treat all the vessel's emissions required by the Regulation.
        - Connection/collection design incompatible with the vessel's stacks
        - Undersized spuds preventing the barge from being able to spud alongside the vessel
        - Inability to safely operate the C&C barge due to lack of visibility or access to the vessel
    - Insufficient barge operability or employee qualifications – barge hinderance of vessels ability to

	meet California State Lands 30-minute departure requirements TLO participated in a technology assessment led by the DNV to evaluate emissions control strategies that could be used to meet the requirements of the Regulation. The physical and operational constraints listed above are included as additional constraints to what was identified by the DNV study. A copy of the DNV study is provided as an attachment to this plan.
2.2 Strategy 2: CARB-Approved Innovative Concept	
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
Physical or Operational Constraints Project: CARB-Approved Innovative Concept	Constraints: • Physical Constraints o See "Innovative Concept Application" submittal • Operational Constraints o See "Innovative Concept Application" submittal
2.3 Strategy 3: Terminal Shore Power System	
Identification and description of all necessary equipment: Equipment: 2. Terminal Shore Power System a. Upgraded utility provider infrastructure (transmission lines, substation transformers, switchgear) b. Transformers c. Power Distribution Center with electrical switchgear and motor controls d. Electrical Raceways and Wiring e. Cable Management Systems f. Fixed Cranes	Location: 2. Terminal 2, Berths B77, B78
Number of **vessels** expected to use this strategy (annual): TBD - dependent on vessel adoption	

Number of vessel **visits** expected to use this strategy (annual): TBD - dependent on vessel adoption

Berths where equipment will be used:

3. Berth 77
4. Berth 78

Schedule for installing equipment:

Project:
Terminal Shore Power System

Estimated Completion Date:

- 3/1/2029*
  - Shore Power schedule assumes electric utility provider can meet the proposed construction schedule and the grid is sufficient to handle the increased power demand.
  - Estimated completion date does not reflect timeline for vessels to convert to shore power.

*Items below may impact the Estimated Completion Date

- Delays in permitting or environmental clearances
- Ability for electric utility provider to assess and supply the increased power demand
- Equipment development resulting from industry guidance and standardization for tanker vessel shore power systems
- Lead time and availability to procure shore power equipment developed from industry guidance and standardization

Physical or Operational Constraints

Project:
Terminal Shore Power System

Constraints:

- Physical Constraints
  - A Method of Service study has been requested from the electric utility provider, Edison. Results from this study will validate whether physical constraints exist due to available space at the Terminal and new equipment required to be installed.
  - Inability to obtain California Environmental Quality Act (CEQA) clearance could impact the installation of a shore power system. TLO has submitted their Harbor Development Permit to

the Port of Long Beach and is awaiting final review.

- Operational Constraints
  - A Method of Service study has been requested from the electric utility provider, Edison. Results from this study will validate the timeline for Edison to provide the necessary power required of vessels. Edison's ability to provide the necessary power may impact the estimated completion date.
  - TLO's ability to implement a shore power system will be reliant on industry development and standardization of a shore power system for tanker vessels.
  - Manufactures do not currently offer shore power systems for terminals and tanker vessels. Engineering and development are required before procurement and implementation of a system can take place.

TLO participated in a technology assessment led by the DNV to evaluate emissions control strategies that could be used to meet the requirements of the Regulation. The physical and operational constraints listed above are included as additional constraints to what was identified by the DNV study. A copy of the DNV study is provided as an attachment to this plan.

2.4 Feasibility Studies

Section 93130.14(a)(3)(H) states *'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'.*

As of the date of this plan, the only CARB approved control strategy is shore power. TLO has elected to invest in the implementation of a shore power system at its Terminal. Within this Terminal Plan, TLO has identified the operational and physical constraints which will delay the implementation of a shore power system according to the requirements of section 93130 et seq.

Due to the physical and operational constraints identified and to support CARB's request to evaluate if any other emission control options could be implemented more quickly at the Terminal, TLO conducted a feasibility study to assess implementation of additional technology. To TLO's best

knowledge, the only other technology which may be capable of meeting the requirements of section 93130 and not already being implemented by TLO is a land-based capture and control system. Based on the results of TLO's feasibility study to implement a land-based capture and control system, the estimated completion date aligned with the estimated completion date for a shore power system. In addition to dates, a physical constraint exists with the infrastructure due to the separate infrastructure required for a shore power system. Operational constraints, reflecting those identified for a barge-based system, also exist due to the needs to design a connection/collection system capable of safely capturing emissions from a variable set of stack configurations.

In summary, TLO believes all efforts have been exhausted to identify technologies capable of meeting the requirements of section 93130 which are not already being pursued through barge-based capture and control, a terminal shore power system, and innovative concepts. Industry studies, most notably the DNV Technology Assessment (attached), also did not identify alternative technologies which may be able to support the requirements of section 93130.

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 only.
2. Future dock enhancements necessary to accommodate shore power 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.
No limitations have been identified at this time.

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: MARIO CORDERO *Title:* CEO
Port: Long Beach
Signature: [signature] *Date:* 1/29/24

5. SIGNATURE OF TERMINAL OPERATOR

By signing below, Tesoro Logistics Operations LLC's responsible official confirms under penalty of perjury thathe/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: Timothy B Hayes Date: 1-15-24

Attachment J:

Terminal Plan for **Tesoro Logistics (LBT)**

Tesoro Logistics Operations LLC (TLO)*
Long Beach Terminal (LBT), Long Beach
At Berth Terminal Plan

This terminal plan has been prepared pursuant to 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
Berths Included in this Plan: Name: 1. Berth B84a 2. Berth B86 Berths B84a and B86 are the only berths at the terminal which receive tanker vessels.	Approximate Geographic Boundary Coordinates:* 1. 33.77236, -118.22173 2. 33.77104, -118.22411
**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
Strategies used to comply with the requirements for ocean-going vessels visiting each berth: Provided technology is sufficiently developed to operate with an acceptable level of personal and process safety risk, TLO plans to employ the following strategies. 1. Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System as a CARB-Approved Emission Control Strategy (CAECS) 2. CARB-Approved Innovative Concept – See TLO's Innovative Concept Application for Long Beach 3. Terminal Shore Power System - land-based system to supply electricity from the grid to a vessel TLO may rely on a combination of these strategies to help reduce emissions from vessels at TLO's berths.
2.1 Strategy 1: Vendor-Provided and CARB-Approved Barge-Based Capture and Control
Identification and description of all necessary equipment: Equipment: 1. Vendor-Provided and CARB-Approved Barge-Based Capture and Control System a. Fully contained barge system including collection system and treatment system Location: 1. Long Beach Terminal, Berths B84a, B86

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:

Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System

Estimated Completion Date:

As of the date of this plan, a Vendor-Provided and CARB-Approved barge-based capture and control system does not exist. The estimated completion date is projected based on current knowledge and development status of the systems being proposed.

- 9/1/2027*
  - C&C estimate assumes technology is proven safe, controls all emission sources required in the Regulation, and the CARB Executive Officer has approved a minimum of two independent vendors by the end of 2024.

*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 TLO resources are actively supporting advancement as a demonstration partner.
- Full resolution of considerations from future safety studies and hazard assessments which TLO anticipates and view as necessary to ensure safe operations on tanker vessels
- Stack connection/collection design demonstrates:
  - Ability to capture emissions from a variable set of stack configurations without damaging the vessel's exhaust stacks.
  - Ability to capture emissions without introducing backpressure in the vessels exhaust systems.

	○ Ability to capture emissions without creating sparks (electrical continuity) ○ Ability of the connection/collection design to accommodate vessel draft and pitch changes due to cargo operations ○ Ability of connection/collection system to adequately transport a wide range of flow rates from multiple stacks ○ Ability to capture emissions without placing an individual in harm's way • Barge congestion and siting around vessels ○ C&C barges must not interfere with adjacent vessel traffic in the port ○ C&C barges must not interfere with containment boom ○ C&C barge mooring systems must not impact submerged utilities crossing navigational channels ○ C&C barge must not hinder the vessel from being able to meet California State Lands 30-minute departure requirements • Implementation of 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 • To prevent monopolization of services, a minimum of two vendors needs to be approved.
Physical or Operational Constraints Project: Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System	Constraints: As of the date of this plan, a Vendor-Provided and CARB-Approved barge-based capture and control system does not exist. Barge-based capture and control systems are still under development for tanker vessels. Until the systems are developed and demonstrated, a complete list of constraints

cannot be fully assessed and finalized. The following list is based on current knowledge of the systems being proposed and may be amended once a system has been demonstrated and approved.

- Physical Constraints
  - Impedance or blockage of traffic in the channel
- Operational Constraints
  - Lack of safe and/or readily available CARB-approved barge-based capture and control systems
  - Lack of tug availability to move CARB-approved barge-based capture and control systems around the port(s)/terminal(s)
  - Lack of adequate safeguards of the CARB-approved barge-based capture and control system
  - Incompatibility between the design of the CARB-approved capture and control barge and the terminal/vessel. This includes, but is not limited to:
    - Undersized C&C treatment system, leading to an inability to treat all the vessel's emissions required by the Regulation.
    - Connection/collection design incompatible with the vessel's stacks
    - Undersized spuds preventing the barge from being able to spud alongside the vessel
    - Inability to safely operate the C&C barge due to lack of visibility or access to the vessel
  - Insufficient barge operability or employee qualifications – barge hinderance of vessels ability to

	meet California State Lands 30-minute departure requirements TLO participated in a technology assessment led by the DNV to evaluate emissions control strategies that could be used to meet the requirements of the Regulation. The physical and operational constraints listed above are included as additional constraints to what was identified by the DNV study. A copy of the DNV study is provided as an attachment to this plan.
2.2 Strategy 2: CARB-Approved Innovative Concept	
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
Physical or Operational Constraints Project: CARB-Approved Innovative Concept	Constraints: • Physical Constraints o See "Innovative Concept Application" submittal • Operational Constraints o See "Innovative Concept Application" submittal
2.3 Strategy 3: Terminal Shore Power System	
Identification and description of all necessary equipment: Equipment: 1. Terminal Shore Power System a. Upgraded utility provider infrastructure (transmission lines, substation transformers, switchgear) b. Transformers c. Power Distribution Center with electrical switchgear and motor controls d. Electrical Raceways and Wiring e. Cable Management Systems f. Fixed Cranes	Location: 1. Long Beach Terminal, Berths B84a, B86

Number of **vessels** expected to use this strategy (annual): TBD - dependent on vessel adoption
Number of vessel **visits** expected to use this strategy (annual): TBD - dependent on vessel adoption
Berths where equipment will be used: 1. Berth 84a 2. Berth 86

Schedule for installing equipment:
Project:
Terminal Shore Power System
 	
Estimated Completion Date:
• 3/1/2029*
  ○ Shore Power schedule assumes electric utility provider can meet the proposed construction schedule and the grid is sufficient to handle the increased power demand.
  ○ Estimated completion date does not reflect timeline for vessels to convert to shore power.
 	
*Items below may impact the Estimated Completion Date
• Delays in permitting or environmental clearances
• Ability for electric utility provider to assess and supply the increased power demand
• Equipment development resulting from industry guidance and standardization for tanker vessel shore power systems
• Lead time and availability to procure shore power equipment developed from industry guidance and standardization

Physical or Operational Constraints
Project:
Terminal Shore Power System
 	
Constraints:
• Physical Constraints
  ○ A Method of Service study has been requested from the electric utility provider, Edison. Results from this study will validate whether physical constraints exist due to available space at the Terminal and new equipment required to be installed.
  ○ Inability to obtain California Environmental Quality Act (CEQA) clearance could impact the installation of a shore power system. TLO has submitted their

Harbor Development Permit to the Port of Long Beach and is awaiting final review.

- Operational Constraints
  - A Method of Service study has been requested from the electric utility provider, Edison. Results from this study will validate the timeline for Edison to provide the necessary power required of vessels. Edison's ability to provide the necessary power may impact the estimated completion date.
  - TLO's ability to implement a shore power system will be reliant on industry development and standardization of a shore power system for tanker vessels.
  - Manufactures do not currently offer shore power systems for terminals and tanker vessels. Engineering and development are required before procurement and implementation of a system can take place.

TLO participated in a technology assessment led by the DNV to evaluate emissions control strategies that could be used to meet the requirements of the Regulation. The physical and operational constraints listed above are included as additional constraints to what was identified by the DNV study. A copy of the DNV study is provided as an attachment to this plan.

2.4 Feasibility Studies

Section 93130.14(a)(3)(H) states '*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*'.

As of the date of this plan, the only CARB approved control strategy is shore power. TLO has elected to invest in the implementation of a shore power system at its Terminal. Within this Terminal Plan, TLO has identified the operational and physical constraints which will delay the implementation of a shore power system according to the requirements of section 93130 et seq.

Due to the physical and operational constraints identified and to support CARB's request to evaluate if any other emission control options could be implemented more quickly at the Terminal, TLO

conducted a feasibility study to assess implementation of additional technology. To TLO's best knowledge, the only other technology which may be capable of meeting the requirements of section 93130 and not already being implemented by TLO is a land-based capture and control system. Based on the results of TLO's feasibility study to implement a land-based capture and control system, the estimated completion date aligned with the estimated completion date for a shore power system. In addition to dates, a physical constraint exists with the infrastructure due to the separate infrastructure required for a shore power system. Operational constraints, reflecting those identified for a barge-based system, also exist due to the needs to design a connection/collection system capable of safely capturing emissions from a variable set of stack configurations.

In summary, TLO believes all efforts have been exhausted to identify technologies capable of meeting the requirements of section 93130 which are not already being pursued through barge-based capture and control, a terminal shore power system, and innovative concepts. Industry studies, most notably the DNV Technology Assessment (attached), also did not identify alternative technologies which may be able to support the requirements of section 93130.

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

1. Future dock enhancements necessary to accommodate shore power 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.
No limitations have been identified at this time.

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: MARIO GARDERO *Title:* CEO
Port: LONG BEACH
Signature: [signature] *Date:* 1/29/24

5. SIGNATURE OF TERMINAL OPERATOR

By signing below, Tesoro Logistics Operations LLC's responsible official confirms under penalty of perjury thathe/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: Timothy K Hayes Date: 1-15-24

Attachment K:

Terminal Plan for **Tesoro Logistics – Terminal 1**

Tesoro Logistics Operations LLC (TLO)*
Terminal 1, Long Beach
At Berth Terminal Plan

This terminal plan has been prepared pursuant to 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
Berths Included in this Plan: Name: 1. Berth T121	Approximate Geographic Boundary Coordinates:* 1. 33.75713, -118.21901
**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

Strategies used to comply with the requirements for ocean-going vessels visiting each berth:

Provided technology is sufficiently developed to operate with an acceptable level of personal and process safety risk, TLO plans to employ the following strategies:

1. Terminal Shore Power System* - land-based system to supply electricity from the grid to a vessel
2. Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System as a CARB-Approved Emission Control Strategy (CAECS)
3. CARB-Approved Innovative Concept – See TLO's Innovative Concept Application for Long Beach

TLO may rely on a combination of these strategies to help reduce emissions from vessels at TLO's berths.

*Berth T121 currently has a shore power system, but this system is only compatible with one (1) vessel. TLO plans to upgrade the system to provide compatibility for future vessels which may be shore power enabled.

2.1 Strategy 1: Terminal Shore Power System

Identification and description of all necessary equipment:

Equipment:	Location:
1. Terminal Shore Power System (current system) a. Vessel connection is port side only, connecting at the rear of the vessel	1. Terminal 1, Berth T121

b. 60 Hz, 6.6kV, 900A, 10,288kVA

2. Terminal Shore Power System (upgraded system)
    a. Electrical Raceways and Wiring
    b. Cable Management System
    c. Fixed Crane

Number of **vessels** expected to use this strategy (annual): 1 initially, increasing as vessels adopt shore power technology

Number of vessel **visits** expected to use this strategy (annual): 14 initially, increasing as vessels adopt shore power technology

Berths where equipment will be used:

1. Berth T121

Schedule for installing equipment:

Project:

1. Terminal Shore Power System (current system)
2. Terminal Shore Power System (upgraded system)

Estimated Completion Date:

1. NA – system already in service
2. 3/1/2029*
    a. Estimated completion date does not reflect timeline for vessels to convert to shore power.

*Items below may impact the Estimated Completion Date to upgrade the system

- Delays in permitting or environmental clearances
- Equipment development resulting from industry guidance and standardization for tanker vessel shore power systems
- Lead time and availability to procure shore power equipment developed from industry guidance and standardization

Physical or Operational Constraints

Project:

1. Terminal Shore Power System (current system)
2. Terminal Shore Power System (upgraded system)

Constraints:

- Physical Constraints
    - None
- Operational Constraints
    - The current shore power system does not have a shoreside crane to facilitate transportation of power and control cables from shore to vessel. Not all vessels have a shipboard crane which can support the cable transportation process. This may lead to an inability for some vessels to utilize the current system.

- TLO's ability to upgrade the current shore power system will be reliant on industry development and standardization of a shore power system for tanker vessels.
- Manufactures do not currently offer shore power systems for terminals and tanker vessels. Engineering and development are required before procurement and implementation of a system can take place.

TLO participated in a technology assessment led by the DNV to evaluate emissions control strategies that could be used to meet the requirements of the Regulation. The physical and operational constraints listed above are included as additional constraints to what was identified by the DNV study. A copy of the DNV study is provided as an attachment to this plan.

2.2 Strategy 2: Vendor-Provided and CARB-Approved Barge-Based Capture and Control

Identification and description of all necessary equipment:

Equipment:

1. Vendor-Provided and CARB-Approved Barge-Based Capture and Control System
   a. Fully contained barge system including collection system and treatment system

Location:

1. Terminal 1, Berth T121

Number of **vessels** expected to use this strategy (annual): 100

Number of vessel **visits** expected to use this strategy (annual): 250

Berths where equipment will be used:

1. Berth T121

Schedule for installing equipment:

Project:

Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System

Estimated Completion Date:

As of the date of this plan, a Vendor-Provided and CARB-Approved barge-based capture and control system does not exist. The estimated completion date is projected based on current knowledge and development status of the systems being proposed.

- 9/1/2027*
  - C&C estimate assumes technology is proven safe, controls all emission sources required in the Regulation, and

the CARB Executive Officer has approved a minimum of two independent vendors by the end of 2024.

*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 TLO resources are actively supporting advancement as a demonstration partner.
- Full resolution of considerations from future safety studies and hazard assessments which TLO anticipates and view as necessary to ensure safe operations on tanker vessels
- Stack connection/collection design demonstrates:
    - Ability to capture emissions from a variable set of stack configurations without damaging the vessel's exhaust stacks.
    - Ability to capture emissions without introducing backpressure in the vessels exhaust systems.
    - Ability to capture emissions without creating sparks (electrical continuity)
    - Ability of the connection/collection design to accommodate vessel draft and pitch changes due to cargo operations
    - Ability of connection/collection system to adequately transport a wide range of flow rates from multiple stacks
    - Ability to capture emissions without placing an individual in harm's way
- Barge congestion and siting around vessels
    - C&C barges must not interfere with adjacent vessel traffic in the port

	○ C&C barges must not interfere with containment boom ○ C&C barge mooring systems must not impact submerged utilities crossing navigational channels ○ C&C barge must not hinder the vessel from being able to meet California State Lands 30-minute departure requirements • Implementation of 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 • To prevent monopolization of services, a minimum of two vendors needs to be approved.
Physical or Operational Constraints Project: Vendor-Provided and CARB-Approved Barge-Based Capture and Control (C&C) System	Constraints: As of the date of this plan, a Vendor-Provided and CARB-Approved barge-based capture and control system does not exist. Barge-based capture and control systems are still under development for tanker vessels. Until the systems are developed and demonstrated, a complete list of constraints cannot be fully assessed and finalized. The following list is based on current knowledge of the systems being proposed and may be amended once a system has been demonstrated and approved. • Physical Constraints ○ Impedance or blockage of traffic in the channel • Operational Constraints ○ Lack of safe and/or readily available CARB-approved barge-based capture and control systems ○ Lack of tug availability to move CARB-approved barge-based capture and control systems around the port(s)/terminal(s)

- Lack of adequate safeguards of the CARB-approved barge-based capture and control system
- Incompatibility between the design of the CARB-approved capture and control barge and the terminal/vessel. This includes, but is not limited to:
  - Undersized C&C treatment system, leading to an inability to treat all the vessel's emissions required by the Regulation.
  - Connection/collection design incompatible with the vessel's stacks
  - Undersized spuds preventing the barge from being able to spud alongside the vessel
  - Inability to safely operate the C&C barge due to lack of visibility or access to the vessel
- Insufficient barge operability or employee qualifications – barge hinderance of vessels ability to meet California State Lands 30-minute departure requirements

TLO participated in a technology assessment led by the DNV to evaluate emissions control strategies that could be used to meet the requirements of the Regulation. The physical and operational constraints listed above are included as additional constraints to what was identified by the DNV study. A copy of the DNV study is provided as an attachment to this plan.

2.3 Strategy 3: CARB-Approved Innovative Concept

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

Physical or Operational Constraints

Project:

CARB-Approved Innovative Concept

Constraints:

- Physical Constraints
  - See "Innovative Concept Application" submittal
- Operational Constraints
  - See "Innovative Concept Application" submittal

2.4 Feasibility Studies

Section 93130.14(a)(3)(H) states *'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'.*

As of the date of this plan, the only CARB approved control strategy is shore power. While TLO currently has a shore power system, it is only compatible with one (1) vessel. To provide compatibility for future vessels which may be shore power enabled, TLO has elected to invest in upgrading the existing shore power system at its Terminal. Within this Terminal Plan, TLO has identified the operational and physical constraints which will delay the upgrades of a shore power system according to the requirements of section 93130 et seq.

Due to the physical and operational constraints identified and to support CARB's request to evaluate if any other emission control options could be implemented more quickly at the Terminal, TLO conducted a feasibility study to assess implementation of additional technology. To TLO's best knowledge, the only other technology which may be capable of meeting the requirements of section 93130 and not already being implemented by TLO is a land-based capture and control system. Based on the results of TLO's feasibility study to implement a land-based capture and control system, the estimated completion date aligned with the estimated completion date for an upgraded shore power system. In addition to dates, a physical constraint exists with the infrastructure due to the separate infrastructure required for a shore power system. Operational constraints, reflecting those identified for a barge-based system, also exist due to the needs to design a connection/collection system capable of safely capturing emissions from a variable set of stack configurations.

In summary, TLO believes all efforts have been exhausted to identify technologies capable of meeting the requirements of section 93130 which are not already being pursued through barge-based capture and control, a terminal shore power system, and innovative concepts. Industry studies, most notably the DNV Technology Assessment (attached), also did not identify alternative technologies which may be able to support the requirements of section 93130.

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 only.
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.
No limitations have been identified at this time.

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:	MARIO CORDERO	*Title:*	CEO
Port:	Long Beach		
Signature:		*Date:*	1/29/24

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:	1-15-24

Attachment L:

Terminal Plan for **Petro-Diamond**

Port of
LONG BEACH
THE PORT OF CHOICE

Petro-Diamond Terminal Company (Petro-Diamond)
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: Pat Kennedy

Phone Number: 562-435-8364 | Email: patk@petrodiamond.com

Berths Included in this Plan:

Name:	Approximate Geographic Boundary Coordinates:*
1. B82	1. 33° 46.465'N, 118° 13.069'W
2. B83	2. 33° 46.425'N, 118° 13.146'W

**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

Strateg(ies) used to comply with the requirements for ocean-going vessels visiting each berth:

1. Not applicable – shared berth(s) and considered low activity per 93130.10(a)(2)

2.1 [Strategy 1]

Identification and description of all necessary equipment:

Equipment:	Location:
1. Not applicable	1. Not applicable

Number of vessels expected to use this strategy (annual): All (< 20)

Number of vessel visits expected to use this strategy (annual): All (< 20) 2020 and 2021 YTD calls attached.

Berths where equipment will be used:

1. Not applicable

Schedule for installing equipment:

Project:	Estimated Completion Date:
1. Not applicable	1. Not applicable

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

Not applicable [May include requirements to berth starboard- or port-side, channel constrictions, etc.]

Port of
LONG BEACH
THE PORT OF CHOICE

4. DIVISION OF ROLES AND RESPONSIBILITIES

Division of responsibilities for enacting infrastructure:

Port:

Not applicable

Terminal Operator:

Not applicable

Note: this plan does not amend or modify the terms and/or the conditions of Petro-Diamond'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 Petro-Diamond with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Petro-Diamond.

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

Not applicable

Port approval of responsibilities:

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

Name: MARIO CORDERO Title: Executive Director

Port:

Signature: Date: Nov 17, 2021

5. SIGNATURE OF TERMINAL OPERATOR

By signing below, Petro-Diamond Terminal Company'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 Petro-Diamond Terminal Company's compliance strategy for the At Berth Regulation. Petro-Diamond Terminal Company understands this plan is subject to verification by CARB staff.

Name: Eric Conard Title: General Manager

Signature: Date: 10/28/2021

Port of
LONG BEACH
THE PORT OF CHOICE

Berth 82/83 Vessel Log
2020

	Date	Vessel Name	Vessel Type
1	1/15/2020	550-1	Barge
2	1/18/2020	DBL 185	Barge
3	1/23/2020	650-6	ATB
4	2/3/2020	Sadah Silver	Ship
5	2/14/2020	FFA	Barge
6	2/19/2020	650-2	ATB
7	2/24/2020	550-1	Barge
8	3/3/2020	Sadah Silver	Ship
9	3/13/2020	550-1	Barge
10	3/20/2020	Jal Sasvata	Ship
11	3/26/2020	550-1	Barge
12	5/27/2020	Pelican State	Ship
13	7/17/2020	Rudolph Schulte	Ship
14	8/17/2020	Torm Gerd	Ship
15	9/16/2020	Resolve II	Ship

PDTC Berth 82/83 Vessel Log
2021

	Date	Vessel Name	Vessel Type
1	1/20/2021	Overseas Boston	Ship
2	2/5/2021	Overseas Boston	Ship
3	3/5/2021	Nave Sextans	Ship
4	3/9/2021	DBL 185	ATB
5	4/7/2021	Pelican Pacific	Ship
6	5/17/2021	Marlin Aventurine	Ship
7	6/10/2021	Marlin Ammolite	Ship
8	6/23/2021	PTI Hudson	Ship
9	7/13/2021	Stavanger Poseidon	Ship
10	8/19/2021	Blue Butterfly	Ship
11	8/27/2021	NCC Hijaz	Ship

Attachment M:

Terminal Plan for **Toyota Logistics Services**

TOYOTA MOTOR NORTH AMERICA, INC. – BERTH B82 AND B83
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: Jeff White

Phone Number: (562) 901-1216	Email: jeff.white@toyota.com

Berths Included in this Plan:

Name:	Approximate Geographic Boundary Coordinates:*
1. Berth B82 and B83	1. – 33°46'24.73"N, 118°13'11.97"W - 33°46'24.02"N, 118°13'11.38"W - 33°46'30.43"N, 118°13'1.14"W - 33°46'29.76"N, 118°13'0.54"W

**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

Strategy used to comply with the requirements for ocean-going vessels visiting each berth:

Primary Strategy: Barge-Mounted Capture Control – A barge-based mobile emissions control system will connect and capture emissions from the ship's auxiliary power units. There is no initial installation cost if using a rental barge-mounted capture control system. However, some modifications to the ship or to the capture system may be necessary for the barge-based emissions control system because the available vessels may have different configurations and vessel connections may require modifications. There are several vendors that offer barge-based control systems that may be positioned with a tugboat next to a vessel at berth. There are possible scenarios when the barge may be unable to connect to a vessel, such as during strong wind conditions.

Toyota is selecting to proceed with the Barge-Mounted Capture Control at this time and is planning to utilize a rental barge-mounted capture control system. Vendor selection is pending a [California Air Resources Board (CARB) Approved Emission Control Strategy (CAECS)] for Roll on/roll off (RoRo) vessels.

Technical challenges presented for adapting Barge-Mounted Capture Control for RoRo vessels include:

- Currently there is a pending approval request for a CARB-approved barge-mounted capture control systems for RoRo vessels. Existing systems are only approved for Container Vessels. RoRo vessels have a wider power range while at berth and require a

taller mast with longer reach. Thus, the existing systems will need to be adapted and then CARB-approved for RoRo vessel use.

- Sufficient number of CARB-approved barge-mounted capture control systems for RoRo vessels may not be available by 2025.
- Permitting considerations for the barge-based system: A barge-based control system may require a permit to operate from the South Coast Air Quality Management District, with possible California Environmental Quality Act (CEQA) review. Therefore, delays with the permit issuance may delay the estimated equipment installation completion date.

Supplemental Strategy -Shore Power

Toyota also studied Shore Power as an option for compliance at the Port of Long Beach. While Shore Power offers several benefits and may be the better long term solution, there are several technical challenges presented by Shore Power for RoRo vessels.

While the technical standard (IEC 80005-1 ED 2.2) for Shore Power Connections for RoRo vessels was issued in August 2023 significant modifications are required for both shore facilities and incoming ships. The ANSI/IEC standard was needed prior to the modifications taking place. In addition, the ship modifications must by accomplished while each ship is in dry dock. Both the timing of ANSI standard availability and the ship modification requirements create a long lead time to implement Shore Power. The anticipated schedule for Shore Power conversion exceeds the regulatory timeframe mandated by California Code of Regulations Title 17, Section 93130.7. Toyota is forecasting that Shore Power may be available at its berth by 2029 or later.

An additional consideration is grid power availability. California's increasing shift to solar power and away from natural-gas fired generators can result in reduced generation capacity during the evening and nighttime hours when there is no available sunlight for the solar power systems. During extreme heat events, high electricity demands for air conditioning systems increases the likelihood of a shortfall in electricity. Furthermore, California Governor Gavin Newsom issued Executive Order N-79-20 in September 2020 that requires all new cars and passenger trucks sold in California to be zero-emission vehicles by 2035. Most of these will be electric which will increase the electricity demand. Therefore, there is growing concern for California's grid capacity/resiliency to support shore power in addition to the increasing electricity demand from electric vehicles and the high electricity demand during extreme heat events.. To help mitigate this concern, Toyota is investigating fuel cell & alternative supplemental energy sources to facilitate Shore Power operations at the TLS Long Beach facility.

As compliance is a shared responsibility between the Port and the Terminal, both the Port and Toyota will continue to review and investigate compliance options as more details become available across the RoRo shipping industry and in terms of grid availability. Toyota plans to proceed with Capture Control as the Primary Compliance Strategy, supplementing with Shore Power as it becomes available in the future.

2.1 **[Primary Strategy – Barge Mounted Emission Control]**

Identification and description of all necessary equipment:

Equipment:	Location:
1. Flexible Emissions Capture Device	1. Barge
2. Emissions Control System	2. Barge
3. Potential vessel stack modification	3. Vessel

Number of **vessels** expected to use this strategy (annual): 21

Number of vessel **visits** expected to use this strategy (annual): 82

Berths where equipment will be used:
Berth B82 and B83

Schedule for installing equipment:

Project:	Estimated Completion Date:
1. Selection of Capture Control Vendor – CARB Approved.	1. Early 2024
2. Vessel stack modification	2. Mid-2024

2.2 **[Supplemental Strategy – Shore Power]**

Identification and description of all necessary equipment:

Equipment:	Location:
1. Confirm Shore Power Supply Strategy	1. Terminal
2. Terminal Modifications (includes permitting)	2. Terminal
3. Ship Modifications	3. Vessel

Number of **vessels** expected to use this strategy (annual): 21

Number of vessel **visits** expected to use this strategy (annual): 82

Berths where equipment will be used:
Berth B82 and B83

Schedule for installing equipment:

Project:	Estimated Completion Date:
1. Selection of Shore Power Supply Strategy	1. Mid-2024
2. Terminal Modifications (includes permitting)	2. End-2029
3. Ship Modifications	3. Ongoing thru 2030's

3. TERMINAL OPERATOR/PORT BERTHING RESTRICTIONS

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

Barge Mounted Capture Control: The barge would constrict a portion of the channel that may affect passing ship navigation.

Toyota is not aware of any other official port berthing restrictions.

4. DIVISION OF ROLES AND RESPONSIBILITIES

This section list the division of roles and responsibilities between the Port and the Terminal. Compliance is a shared responsibility between the Port and the Terminal.

Division of responsibilities:

Note: this plan does not amend or modify the terms and/or the conditions of Toyota'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 Toyota with other entities nor does it modify or diminish any other obligations of other entities to the Port of Long Beach and/or Toyota.

	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.

Berths B82 and B83 are shared Berths. Toyota Motor North America, Inc. is only the Terminal operator while Toyota-leased ships are at berth. National Gypsum has preferential berthing rights and may impact scheduling.

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

Name: MARIO CORDERO Title: CEO

Port: Port of Long Beach

Signature: [signature] Date: 1/29/24

5. SIGNATURE OF TERMINAL OPERATOR

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

Name: Manny Bansi Title: VP TLS

Signature: *Manny Bansi*
Manny Bansi (Jan 19, 2024 12:17 CST)

Date: 01/19/2024