



At Berth Regulation Port & Terminal Plan



Oxnard Harbor District

Revised February 2024



At Berth Regulation Port & Terminal Plan

prepared for

**Oxnard Harbor District
Emissions Capture Assessment
Port Hueneme, CA**

Initial preparation by

Burns & McDonnell Engineering Company, Inc.

Revised by Oxnard Harbor District February 2024

CERTIFICATION

**Oxnard Harbor District
At Berth Regulation Port & Terminal Plan**

Signature of Responsible Port Official

Kristin Decas, CEO and Port Director

Date: February 15, 2024

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
AECS	Approved Emission Control Strategy
AERAS	AERAS Technologies
CAEM	Clean Air Engineering Maritime
CARB	California Air Resources Board
ECCS	Emissions Capture and Control System
GHG	Greenhouse gas
HVSC	High Voltage Shore Connection
Port	Port of Hueneme
Reefer	Refrigerated cargo
Ro-ro	Roll-on roll-off
STAX	STAX Engineering

1.0 INTRODUCTION

1.1 About the Port of Hueneme

The Port of Hueneme, “The Port that Farmers Built,” was established in 1937 as the Oxnard Harbor District. Building on that legacy, today the Port ranks amongst the top ten Ports in the US for autos and fresh produce. Located sixty miles north of Los Angeles, the Port of Hueneme is strategically positioned to serve as a niche hub for the US West Coast exporters and importers without any congestion.

As a political subdivision of California, the Port operates as an independent Special District that owns and manages the Port of Hueneme. A five-member Board of Harbor Commissioners, elected at large from the Oxnard Harbor District, sets the policies for the Port. The District’s current political boundaries include the cities of Oxnard and Port Hueneme, as well as a few beach communities within Ventura County.

The Port is empowered to acquire, construct, own and operate all harbor works to fulfill its mission to maximize maritime commerce and provide extensive economic and social benefits to the community. The Port of Hueneme does not assess taxes and operates based on the revenues from its commercial activities. The Port has long term contracts with shipping line and cargo owners that provide for minimum annual revenue guarantees and incentives for increased velocity and cargo throughput. The only tax-payer dollars the Port has access to include state, federal and local grants available only if the Port has a competitive grant application awarded.

The Port prepares and controls its own budget, administers, and controls its fiscal activities, and is responsible for all Port construction and operations. Thus the Port operates under more of an operating port model than landlord port model, which is more common in California. Pursuant to the California Harbors and Navigation Code, the Port adopts an annual operating budget, including a capital spending plan and a debt service schedule for each fiscal year (July 1 through June 30). Annually, the Port engages an independent auditor to audit the fiscal year-end financial statements.

The Port of Hueneme, the 4th largest container port in California is strategically located in Ventura County and lies approximately 60 miles north of Los Angeles. The Port specializes in the markets of fresh fruit, project cargo, automotive, general store merchandise and liquid bulk cargoes. Many of the products traversing the Port are deemed “essential and critical” including fresh foods, supplies, and military equipment. The Port itself is identified as “critical infrastructure” in national and state level freight

planning. The Port is also recognized as “Critical Infrastructure Sector” per the U.S. Cybersecurity and Infrastructure Security Agency’s designation.

Vessels subject to the 2020 Regulation calling at the Port of Hueneme (Port) include refrigerated cargo (reefer), roll-on roll-off (ro-ro) vessels, and tanker vessels. Reefer operations at the Port typically occur at Wharf 1 or South Terminal (which includes Berths 1 and 2), but may operate on Wharf 2 or North Terminal (Berths 4 and 5 – low use) or Navy Terminal infrequently (low use), ro-ro operations may occur at three terminals, consisting of Wharf 2 or North Terminal (Berths 4 and 5) and infrequently (low use) at the Navy Terminal, or infrequently (low use) at Wharf 1 or South Terminal, and tanker vessels call on Wharf 1 or South Terminal (Figure 1-1). In 2020, there were 153 reefer vessels calls at the port, with 145 occurring at Wharf 1 (96%), 8 at Wharf 2 (4%), and none at the Navy Terminal. In 2020, there were 186 ro-ro vessel calls at the Port with 182 occurring at Wharf 2 (98%) and 4 at the Navy Terminal (2%). Lastly, there were 12 tanker vessel calls at Wharf 1 in 2020.

The Navy Terminal has had fewer than 20 calls from all regulated vessels in 2021, 2022 and 2023 and therefore is considered to be a low-use terminal. Wharf 1 was not used for ro-ro vessels in 2020, it had 2 in 2021, and 2 in 2022, and is therefore considered to be a low-use terminal for ro-ro. Wharf 2 had only 8 reefer vessel calls in 2020, 2 in 2021, and 4 in 2022 and is therefore considered to be a low use terminal for reefer vessels. Low-use terminals do not have emissions control requirements; however, opacity and visit reporting requirements still apply. It is important to note that Navy Terminal is located on Navy Base Ventura County and is therefore neither on Port property nor under Port jurisdiction. The Port must request approval from Navy Port Operations to allow any vessel to be berthed at the Navy Terminal.

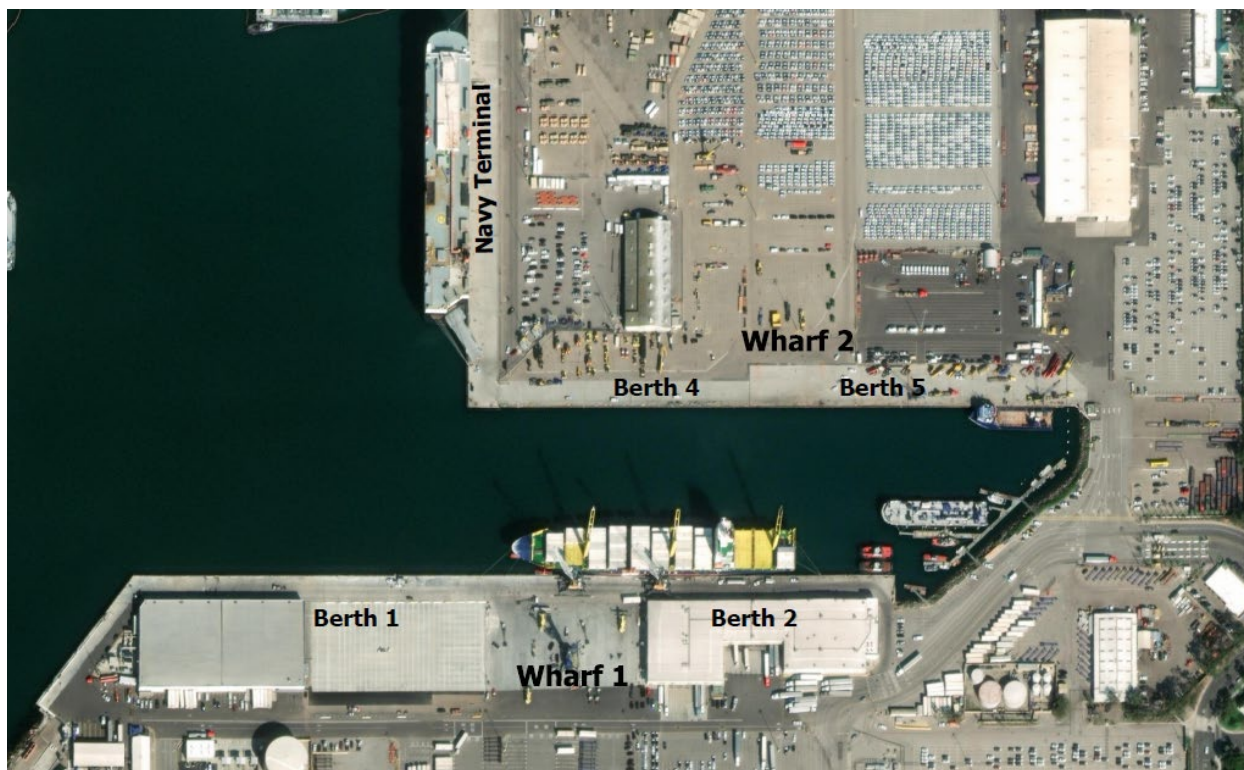


Figure 1-1: Port of Hueneme terminals

The Port plans to implement two strategies to comply with the At-Berth Regulation – shore power and an ECCS. There is currently a shore power system on the Wharf 1 South Terminal that serves reefer vessels (see Appendices A-C). Shore power will also be installed at the North Terminal at Berths 4 and 5. Upon project completion, the North Terminal’s shore power system will be able to also serve reefer and ro-ro vessels. At least one barge-based ECCS is planned to be deployed by January 1, 2025 to serve ro-ro vessels at the North Terminal that are not shore power compatible, as well as reefer vessels as a back-up option and to potentially support tanker vessels.

The Port is an operating port, directly involved in terminal operations at Wharf 1, Wharf 2, and Navy terminals, and as such serves in the role of both port authority and terminal operator. The Port will be responsible for implementing emissions control strategies at the South and North Terminals for both reefer and ro-ro vessels. The following sections detail the Port’s planned emissions control strategies for the Wharf 1 or South Terminal (Section 2) and North Terminal (Section 3) in compliance with the Control Measure for Ocean-Going Vessels at Berth, per Sections 93130.14(a) and (b) of the California Code of Regulations.

2.0 STATE OF THE TECHNOLOGY

The Port continues to monitor the feasibility of different technology options to reduce emissions from vessel calls. The current strategies of enabling emissions control, and proposed within, include the primary control technology of shore power infrastructure with an ECCS as the alternate, however the Port must ensure that it maintains the flexibility to pursue the most effective and feasible technologies for future use. Other than existing shore power, this plan does not tie the Port to one technology if others prove to be a better fit for use within the Port of Hueneme. This also recognizes the tepid pace of development of other potential control technologies and the constraints on implementation posed by the global strategic and energy uncertainties and critically, the nascent state of the technology vendor's abilities to manufacture ECCS systems.

2.1 Shore Power

While shore power is a proven strategy for reducing emissions from at-berth vessels, as of January 2024 the IEC/ISO/IEEE High Voltage Shore Connection (HVSC) Standard 80005-01 for ro-ro vessels was only recently approved. The length of time of this approval process took to complete combined with ongoing post-pandemic supply chain disruptions have created significant delays in the initiation of shore power retrofits of ro-ro vessels by vessel owners which in our conversations are anticipated to stretch many years beyond 2025. These delays in initiating retrofits have added considerable complexity to the Port's compliance strategy planning because vessel owners anticipate that retrofits of their fleets will take approximately three to five years due to the need to drydock vessels when performing retrofits.

2.2 Emissions Capture and Control Systems

There are three companies that offer or plan to offer ECCS for at-berth ro-ro vessels, including AERAS Technologies (AERAS), Clean Air Engineering-Maritime (CAEM), and STAX Engineering (STAX). Of which, CAEM is the only company that has an operating ECCS system servicing OGV. CAEM offers a barge-based system that has a CARB Executive Order (EO) for container vessels. Both AERAS and STAX are in the process of marketing their recently developed ECCS systems, and have both recently received EO's for both container and ro-ro vessels.

All three companies have reported that they plan to construct barge-based ECCS for ro-ro and reefer vessels that would meet the At-Berth Emissions reduction requirements as well as have grid-neutral power sources. The CARB At-Berth Regulations for ro-ro vessels are scheduled to go into effect in January 2025, however to the Port's knowledge there is currently only one ECCS that have been designed and built specifically for ro-ro vessels, by STAX, however more from other vendors may be in

construction soon. The slow pace of construction of CARB-approved ECCS for ro-ro vessels and the lack of options in ECCS providers with CARB-approved systems raises questions regarding the technical and economic feasibility and availability of ECCS units to serve the Port. The Port has been in close communication with the known ECCS companies for the last four years, and has persevered to stay apprised of the development of the technology and potential plans and timelines for deployment of control technology including the potential for the Port of Hueneme serving as a testing location. Critically, the Port of Hueneme has endeavored to understand and monitor the evolving business model for ECCS services in California and has repeatedly sought grant funding for at least four years in order to guarantee that it successfully secured a system to ensure customer compliance on January 1, 2025.

The Port has continued its ongoing conversations with the CAECS vendors as well as the ocean carriers in order to prepare for January 1, 2025. The Port plans to have at least one ECCS system servicing ro-ro vessels beginning January 1, 2025.

3.0 IMPLEMENTATION CHALLENGES

3.1 Shore Power

One of the key challenges for expanding the shore power system at the Port is the anticipated need to upgrade the utility feeds from Southern California Edison (SCE). Without adequate transmission and distribution system capacity, the terminal shore power system will have limited functionality and may be subject to utility-initiated outages. The Port is continuing its ongoing coordination with the utility company to make sure we have adequate power provided to the Port when we need it for all electrical loads, particularly new power loads, especially shore side power. In addition, the Port is evaluating on-site distributed energy resource options, including on-site generation and energy storage to help offset peak demands and reduce the immediate needs for utility upgrades. Very significant questions are being raised by CARB's push of industry towards electrical grid power as the clean energy fuel of the future at a time when Statewide grid resiliency is struggling and the frequency of power interruptions and outages grows more common due to climate change induced emergencies like heat events, unprecedented precipitation events and wildfires.

As previously noted, the length of time it took for the approval of the IEC/ISO/IEEE HVSC Standard 80005-01 for ro-ro vessels has delayed the initiation of shore power retrofits of ro-ro vessels by vessel owners. The Port is currently engineering a dual voltage power system for the North Terminal which will enable both refrigerated container and ro-ro vessels to plug in upon construction. However, delays in retrofits will limit the number of ro-ro vessels that will be able to connect to shore power, creating more demand for the ECCS. The Port will continue to work with shipping lines to stay apprised of their shore power retrofit schedules for vessel fleets calling on the Port. For these reasons, presently the Port anticipates that the vast majority of ro-ro vessels will be dependent on external barge based ECCS systems for the first several years of compliance with At Berth, while fleets are being retrofitted with shorepower compliant infrastructure. The Port plans to upgrade its north terminal with shoreside power infrastructure to serve shoreside power capable ro-ro and refrigerated cargo vessels, forecasting an approximate 2-year engineering and construction window.

3.2 Emissions Capture and Control Systems

The complete lack of commercial availability of CARB-approved ECCS for ro-ro and tanker vessels increases the uncertainty of the ability to implement the strategies described in the Port and Terminal Plan.

While there are three companies (AERES, CAEM, and STAX) that report that they are developing ECCS to serve these vessels, as of December of 2021, only CAEM had a CARB-approved system that is in service. In addition the small size of these companies may present supply challenges as multiple ports and terminals procure systems to meet the treatment deadlines. The Port has since continued to evaluate the operational viability of ECCS as systems are developed for ro-ro and tanker vessels by different ECCS providers.

The Port has continued to pursue infrastructure required for compliance with the new at berth regulations since 2021. This has included applying to multiple grant opportunities for funding as well as ongoing conversations with both the ocean carriers themselves as well as the technology vendors for ECCS systems as described in previous sections of this plan. In addition, the Port has continued conversations with all invested parties including the ILWU, the stevedores and other California ports. It is still anticipated that a limited number of ECCS systems will be available come January 2025 and that there will be competition amongst California ports and terminals to secure the services of that limited number of systems available. The ECCS vendors have been limited in the sharing of information with ports about their capitalization, construction timelines as well as their planned timing of when systems would be available and to whom they would be offered. In this atmosphere of global uncertainty and technological and regulatory delays the Port has continued to persevere to ensure a compliance system be available come January 2025. The Port plans to have at least one ECCS system servicing ro-ro vessels beginning January 1, 2025.

4.0 SOUTH TERMINAL

The Port plans to implement two strategies to comply with the 2020 At Berth Regulation at the South Terminal, including shore power and deployment of the barge-based ECCS to serve refrigerated cargo vessels. Shore power will serve as the primary emissions control strategy for reefer vessels at the South Terminal (Wharf 1) and the ECCS will serve as a back-up control strategy.

4.1 Emission Control Strategies

Shore power is installed and available at the South Terminal (Wharf 1) to serve reefer vessels¹. The system allows three ships to be shore-power connected simultaneously while at berth. A shore power system has been in place at Wharf 1 since 2014 to serve reefer vessels. The Port plans to provide the option for utilizing the services of the barge-based ECCS to serve regulated vessels that are not shore power compatible.

4.1.1 Necessary Equipment

Shore power equipment is installed and in service at the terminal. No additional equipment is required, however the Port is looking into procuring a cable management system to reduce operations restrictions for plugging in different vessels. One barge-based ECCS will be required to serve the Port full time. The ECCS that will be chosen will have a CARB Executive Order.

4.1.2 Number of Vessels Expected to Use Strategy

In 2020, 145 reefer vessels visited Wharf 1, and there are anticipated to be over 160 reefer vessel calls in 2021. Less than 10 vessels would be expected to use the ECCS at the South Terminal. Going forward, the Port plans to use shore power as its primary emissions control strategy at the South Terminal to serve all shore-power-capable regulated vessels.

4.1.3 Berths Where Equipment will be Used

Shore power is installed at Berths 1 and 2 on the South Terminal (Wharf 1). The ECCS will be used at Berths 1, and 2 for vessels that cannot connect to shore power.

4.1.4 Berthing Restrictions

Refrigerated cargo vessels generally dock at Wharf 1 due to the proximity of the associated container handling equipment and facilities. The shore power system on the South Terminal is a 6.6-kV system,

¹ The south terminal shorepower system was damaged by a major storm event at end of December 2023 and will be reconstructed in the upcoming year, see Appendices A-C for more detail.

which may not be compatible with the international electrical standard for ro-ro vessels, which may be 11 kV. Due to the channel width between the Port's North and South Wharfs (395 ft), when vessels are at berth at both the North and South Terminals, the channel width is reduced to 155 ft. The use of a barge-based ECCS along the starboard side (in the channel) limits the ability of other vessels to navigate the channel (Figure 4 1).



Figure 4-1: Channel width constraint when vessels are simultaneously berthed at Wharfs 1 and 2

4.1.5 Division of Responsibilities

The Port will be responsible for the on-berth shore power infrastructure. Vessel operators are responsible for on-board shore power systems.

For ECCS services, the Port is seeking to provide an umbrella ECCS service agreement with one of the existing ECCS vendors that will guarantee ECCS service be available for Hueneme regulated ro-ro calls beginning on January 1, 2025. However, these emission capture services will be conducted via a contract between the vessel operator and the ECCS provider. The Port will not enter into a three-way contract between the ECCS vendors, the ocean carriers and the Port. Vessel carriers will be able to enter into their own agreements with ECCS vendors of their choice if they choose not to utilize the shoreside power

system available at the Port, however this situation is anticipated to be unlikely or infrequent. It is critical to note that due to a huge number of elements out of the Port's control including unprecedented global energy and security uncertainty, the actions of other Ports, Terminals, and CARB, the construction and business model development of the ECCS vendor companies, as well as historic storm weather damage to Port infrastructure, the State-wide operation of ECCS systems, including the Port, will be an evolving operation up to and beyond January 1, 2025.

Port:

Provides functional berths and ensures a supply of electricity for shorepower use.

Constructs and maintains shorepower vaults and equipment to supply electricity.

Provides alternative CAECS when Port construction interferes with berth availability and/or electricity supply.

Terminal:

(Port of Hueneme is Serving in the Terminal Operator Role)

Provides the shorepower vault infrastructure for vessel plug-in.

Stevedore provides ILWU labor to load and unload AMP containers.

Stevedore provides ILWU labor to perform vessel plug-in.

Assist vessel operator with obtaining ECCS, when feasible.

Provides alternative ECCS when terminal construction interferes with berth availability.

Vessel Operator:

Ensure vessel crew are fully trained for shorepower processes.

Engage outside consultant when required for training Have crew on hand for all vessel plug/unplug.

Ensure all vessels systems have been inspected and in good working order prior to arrival.

Engage tugboat services to meet designated arrival and departure times.

Acquire and maintain shorepower containers or on-board vessel shorepower electrical infrastructure including cable and plugs in good working order.

Ensure ECCS services are properly arranged, if needed

Cooperate with Terminal Operator in sharing of information and call data as required by CARB regulation.

ECCS Operator

Supply ECCS services as specified in contract.

4.1.6 Physical and/or Operational Constraints

There are numerous physical or operational constraints for using shore power for those vessels that will be shore power compatible and meeting IEC/ISO/IEEE High Voltage Shore Connection (HVSC) Standard 80005-01, as follows below. All other regulated vessels will require the use of an ECCS to comply with the At-Berth Regulation.

The principal constraint for deploying a barge-based ECCS is the channel width between the north and south wharfs. Initial analyses have shown that planned ECCS can be positioned at the stern of the vessel to the portside of the stern ramp. The ECCS will have the ability to reach vessel auxiliary engine stacks located near the stern of the vessel. ECCS providers report that they are developing capture booms that will have adequate reach, and the flexibility to be compatible with different stack and soot screen configurations.

4.1.7 Exemption Scenarios

This list includes physical and operational constraints which are beyond reasonable control of the parties involved in implementing this rule. The following are specific and related scenarios in which emissions control is not feasible and these situations will be considered exemptions and will not require the Port or Terminal to use Terminal Incident Exemptions or the remediation fund.

1. Shorepower inoperability due to heavy precipitation, wildfire, heat event, other force majeure, or Executive Order.
2. Health and Safety Issues as determined by ILWU or others, where a responsible official reasonably determines that compliance with this Control Measure would endanger the safety of the vessel, shorepower or CAECS infrastructure, labor, crew, cargo, passengers, terminal, or

terminal staff because of severe weather conditions, a utility event, or other extraordinary reasons beyond the control of the terminal operator or vessel operator.

3. Inability to connect due to usage of ship's gear or vessel's management of its power load beyond the control of the Terminal.
4. Terminal construction to modernize facilities to enable CARB compliance and wharf modernization and safety.
5. Inability to use shorepower due to vessel safety spacing and alignment constraints / Berthing misalignment due to cable reel issues or equipment failures or changes by vessel operator.
6. Weather delays creating berthing conflicts.
7. Multi-vessel safe departure navigational timing and CAECS disconnection limitations due to labor availability.
8. Berthing alignment preventing both vessels drawing power from a single power vault.
9. Unavailability of parts for shorepower system.
10. Unavailability of certified technicians to work on shorepower system.
11. Utility power outages.
12. Damage to shorepower system due to utility power outages.
13. Public Safety Power Shutoff (PSPS) events.
14. Utility power infrastructure maintenance.
15. Regulatory situation preventing vessel clearance.
16. Labor action or dispute. The Port/Terminal has contractual obligations to the ILWU regarding hours of availability and work stoppages. (See e.g., Pacific Coast Longshore Contract.)
17. System malfunction despite full preventative maintenance of Port power infrastructure.
18. Failure of 3rd parties to notify the Port of system malfunctions.

5.0 NORTH TERMINAL

The Port plans to implement two strategies to comply with the At Berth Regulation at the North Terminal, including shore power at Wharf 2 and deployment of a barge-based ECCS for vessels that are not shore power compatible. The North Terminal (Wharf 2), consisting of Berths 4 and 5, is shown in Figure 5-1. Spatial and operational constraints at Wharf 2 allow only one ro-ro vessel to be berthed at the terminal at one time.



Figure 5-1: Port of Hueneme North Terminal (Wharf 2)

5.1 Emission Control Strategies

Shore power will be deployed at the North Terminal (Wharf 2) to serve ro-ro vessels. The shore power system will be a dual voltage system and thus include connection infrastructure for both regulated vessels to provide flexibility in connecting to the greatest number of shore power compatible vessels. The planned system will have a mobile connection system to allow for maximum flexibility in vessel berthing locations. The Port plans to procure the services of one barge-based ECCS to primarily serve ro-ro vessels

at the North Terminal, and it may also be used at the South Terminal if needed and when not in use on North Terminal.

5.1.1 Necessary Equipment

The shore power system will be compliant to IEC/ISO/IEEE High Voltage Shore Connection (HVSC) Standard 80005-01. Equipment to be installed include an electrical switchgear substation, associated underground conduits/conductors, mobile connection and cable infrastructure, and all utility company required power infrastructure. One barge-based ECCS will be required to serve the Port full time. The ECCS that will be chosen will have a CARB Executive Order for both ro-ro and reefer vessels. Barge-based ECCS will be either self-propelled or will require a tug.

5.1.2 Number of Vessels Expected to Use Strategy

In 2025, the Port estimates 200 ro-ro vessel calls will berth at the North Terminal. As noted earlier, based on discussions with the shipping lines calling at the Port, plans for incorporating shore power into existing and new vessels vary by shipping line. It is anticipated that the number of shorepower retrofitted ro-ro vessels will be less than 10. In 2025, it is anticipated that over 200 vessels will require the use of an ECCS while at berth. As additional ro-ro vessels are retrofitted or constructed with shore power, the use of the ECCS will gradually decline but that will likely take many years.

5.1.3 Berths Where Equipment will be Used

Shore power will be used at Berths 4 and 5 at Wharf 2 for primarily ro-ro vessels and reefer vessels occasionally and any other regulated vessels. The ECCS will be used primarily at Berths 4 and 5 at the North Terminal (Wharf 2). The ECCS may be used opportunistically to service other regulated vessels when an ECCS is not required to serve ro-ro vessels at Wharf 2.

5.1.4 Berthing Restrictions

Most ro-ro vessels have a stern ramp positioned on the starboard side of the vessel. ECCS will need to have the capacity to treat emissions from auxiliary engine stacks potentially located at beam's width or more from the barge. Due to the channel width between the Port's North and South Wharfs, the positioning for the ECCS will be essential to accommodating a vessel transiting the channel when there are ships at berth along the North and South Terminals (Figure 5 2). The design of the shore power system will accommodate a range of vessel sizes, provided that the vessels are shore power enabled.



Figure 5-2: Ideal positioning of barge-based ECCS to maintain channel navigability

5.1.5 Schedule for Installing Equipment

The engineering of the North Terminal shore power system began in calendar year (CY) 2023 quarter 2 (Q2). Construction is scheduled to go out to bid in CY 2024 Q2, with construction and commissioning running through CY2025 Q4. These timelines are a reflection of the Port's aggressive pursuit of funding for this new infrastructure and consistent perseverance to have this system built as soon as possible, an early installation timeline has proven technologically, financially and logistically impossible. ECCS services will be procured in advance of January 1, 2025 emissions control compliance date for ro-ro vessels.

5.1.6 Division of Responsibilities

The Port will be responsible for the installation of the on-berth shore power infrastructure. Vessel operators will be responsible for retrofitting vessels for shore power. Plans for retrofitting and constructing new vessels with shore power vary among shipping lines.

For ECCS services, the Port is seeking to provide an umbrella ECCS service agreement with one of the existing ECCS vendors that will guarantee ECCS service be available for Hueneme ro-ro calls beginning on January 1, 2025. However these emission capture services will be conducted via a contract between the vessel operator and the ECCS provider. The Port will not enter into a three-way contract between the ECCS vendors, the ocean carriers and the Port. Vessel carriers will be able to enter into their own agreements with ECCS vendors of their choice if they choose not to utilize the system available at the Port, however this situation is anticipated to be unlikely or infrequent. It is critical to note that due to a significant number of elements out of the Port's control including unprecedented global energy and security uncertainty, the actions of other Ports, Terminals, and CARB, the construction and business model development of the ECCS vendor companies, as well as historic storm weather damage to Port infrastructure, the State-wide operation of ECCS systems, including the Port, will be an evolving operation up to and beyond January 1, 2025.

Port:

Provides functional berths and ensures a supply of electricity for shorepower use.

Constructs and maintains shorepower vaults and equipment to supply electricity.

Provides alternative CAECS when Port construction interferes with berth availability and/or electricity supply.

Terminal:

(Port of Hueneme is Serving in the Terminal Operator Role)

Provides the shorepower vault infrastructure for vessel plug-in.

Stevedore provides ILWU labor to load and unload AMP containers.

Stevedore provides ILWU labor to perform vessel plug-in.

Assist vessel operator with obtaining ECCS, when feasible.

Provides alternative ECCS when terminal construction interferes with berth availability.

Vessel Operator:

Ensure vessel crew are fully trained for shorepower processes.

Engage outside consultant when required for training Have crew on hand for all vessel plug/unplug.

Ensure all vessels systems have been inspected and in good working order prior to arrival.

Engage tugboat services to meet designated arrival and departure times.

Acquire and maintain shorepower containers or on-board vessel shorepower electrical infrastructure including cable and plugs in good working order.

Ensure ECCS services are properly arranged, if needed

Cooperate with Terminal Operator in sharing of information and call data as required by CARB regulation.

ECCS Operator:

Supply ECCS services as specified in contract with ocean carriers.

5.1.7 Physical and/or Operational Constraints

There are no physical or operational constraints for using shore power for those vessels that will be shore power compatible and meeting IEC/ISO/IEEE High Voltage Shore Connection (HVSC) Standard 80005-01. All other regulated vessels will require the use of an ECCS to comply with the At-Berth Regulation.

The principal constraint for deploying a barge-based ECCS is the channel width between the north and south wharfs. Initial analyses have shown that planned ECCS can be positioned at the stern of the vessel to the portside of the stern ramp. The ECCS will have the ability to reach vessel auxiliary engine stacks located near the stern of the vessel. ECCS providers report that they are developing capture booms that will have adequate reach, and the flexibility to be compatible with different stack and soot screen configurations.

5.1.8 Exemption Scenarios

This list includes physical and operational constraints which are beyond reasonable control of the parties involved in implementing this rule. The following are specific and related scenarios in which emissions control is not feasible and these situations will be considered exemptions and will not require the Port or Terminal to use Terminal Incident Exemptions or the remediation fund.

1. Shorepower inoperability due to heavy precipitation, wildfire, heat event, other force majeure, or Executive Order.

2. Health and Safety Issues as determined by ILWU or others, where a responsible official reasonably determines that compliance with this Control Measure would endanger the safety of the vessel, shorepower or CAECS infrastructure, labor, crew, cargo, passengers, terminal, or terminal staff because of severe weather conditions, a utility event, or other extraordinary reasons beyond the control of the terminal operator or vessel operator.
3. Inability to connect due to usage of ship's gear or vessel's management of its power load beyond the control of the Terminal.
4. Terminal construction to modernize facilities to enable CARB compliance and wharf modernization and safety.
5. Inability to use shorepower due to vessel safety spacing and alignment constraints / Berthing misalignment due to cable reel issues or equipment failures or changes by vessel operator.
6. Weather delays creating berthing conflicts.
7. Multi-vessel safe departure navigational timing and CAECS disconnection limitations due to labor availability.
8. Berthing alignment preventing both vessels drawing power from a single power vault.
9. Unavailability of parts for shorepower system.
10. Unavailability of certified technicians to work on shorepower system.
11. Utility power outages.
12. Damage to shorepower system due to utility power outages.
13. Public Safety Power Shutoff (PSPS) events.
14. Utility power infrastructure maintenance.
15. Regulatory situation preventing vessel clearance.
16. Labor action or dispute. The Port/Terminal has contractual obligations to the ILWU regarding hours of availability and work stoppages. (See e.g., Pacific Coast Longshore Contract.)

17. System malfunction despite full preventative maintenance of Port power infrastructure.
18. Failure of 3rd parties to notify the Port of system malfunctions.

6.0 APPENDIX A

URGENCY ORDINANCE NO. 245

**AN URGENCY ORDINANCE OF THE BOARD OF HARBOR
COMMISSIONERS OF THE OXNARD HARBOR DISTRICT
PROCLAIMING A LOCAL EMERGENCY IN RESPONSE TO
FLOODING AND STORM EVENT OF DECEMBER 21, 2023**

WHEREAS, the unprecedented storm event of December 21, 2023, caused flood damage throughout Ventura County and the City of Port Hueneme, including the Oxnard Harbor District's ("District") facilities and property; and

WHEREAS, the City of Port Hueneme adopted a resolution proclaiming a local emergency on December 27, 2023, pursuant to Government Code section 8630; and

WHEREAS, California Government Code section 8634 provides that during a local emergency the governing body of the District has the power and authority to "promulgate orders and regulations necessary to provide for the protection of life and property ... Such orders and regulations and amendments and recessions thereof shall be in writing and shall be given widespread publicity and notice"; and

WHEREAS, California Harbors and Navigation Code section 6070 provides that the Board of Harbor Commissioners may "pass all necessary ordinances for the regulation of the district, including, but not limited to, ordinances to provide for the protection and safety of persons or the property of persons using district facilities, and persons and property of persons in and upon waters subject to the jurisdiction of the district, and adjacent property owned or controlled by the district"; and

WHEREAS, California Harbors and Navigation Code section 6078 further provides that the Board may do all other acts necessary and convenient for the full exercise of its powers; and

WHEREAS, the Board of Harbor Commissioners desires to declare a local emergency; and

WHEREAS, this Urgency Ordinance is necessary to provide for the protection of life and property under Government Code Section 8634 and all applicable authorities.

NOW, THEREFORE, BE IT ORDAINED, by the Board Harbor Commissioners of the Oxnard Harbor District as follows:

Section 1. Pursuant to the California Government Code Section 8634, the Board of Harbor Commissioners wishes to exercise its authority to protect life and property;

Section 2. Pursuant to California Harbors and Navigation Code section 6070, the Board of Harbor Commissioners hereby finds and proclaims a local emergency caused by the aftermath of the storm event of December 21, 2023, in the territorial jurisdiction of the Oxnard Harbor District, which constitutes an extreme peril of health and safety of persons within the territorial limits of the District.

Section 3. The local emergency shall be deemed to continue to exist until its termination is proclaimed by the Board of Harbor Commissioners.

Section 4. The Executive Director is hereby authorized to furnish information, to promulgate orders and regulations necessary to provide for the protection of life and property pursuant to California Harbors and Navigation Code section 6070, to enter into agreements and to take all actions necessary to obtain State and/or federal emergency assistance to implement preventive measures to protect and preserve the employees and visitors of the District within the scope of the local emergency hereby declared.

Section 5. The Board of Harbor Commissioners further orders that, until further notice:

A. The Port Director and CEO, or her designee, shall act as the Director of Emergency Services and ensure full and proper coordination with all federal, state and local authorities charged with implementing necessary measures to protect the life, property and welfare of all residents of the District, as well as that of the customers, tenants and other users of the District.

B. The Director of Emergency Services is authorized to expend whatever sums necessary to procure goods, equipment, supplies and services necessary to mitigate loss and preserve and protect the facilities and assets of the District, and to promote and protect the health and safety of all District employees and persons coming onto District-owned property.

C. Any labor or personnel rule or regulation or memorandum of understanding that currently requires a doctor's note for a District employee to be absent from work for more than four (4) days due to sickness is hereby suspended and waived.

D. Warrants, drafts, checks and other payments made by or on behalf of the District may be signed either in-person or through the use of approved digital signatures, by two executive staff without the need for Harbor Commissioner signature, though manual oversight must be provided by the Director of Finance and Accounting and the Board of Harbor Commissioners must ratify all expenditures at a subsequent and duly-noticed public meeting.

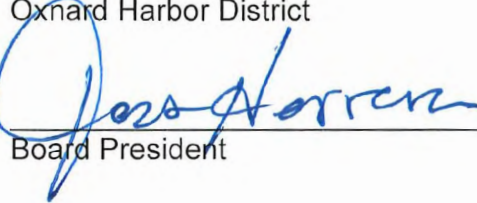
E. The Port Director and CEO may take any other action she deems necessary or prudent to protect the employees of the District and the people, goods and cargo on-port, including with respect to employees' working hours, work locations and leaves.

Section 6. During the existence of said local emergency, the powers, functions, and duties of the emergency organization of the District shall be those prescribed by state law, ordinances, and resolutions of the District.

Section 7. This Urgency Ordinance shall become effective immediately upon adoption.

PASSED, APPROVED and ADOPTED by the Board of Harbor Commissioners of the Oxnard Harbor District at a special meeting of said Board held on the December 29, 2023, by the following vote:

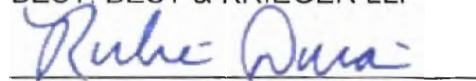
AYES: 3
NAYS: 0
ABSENT: 2
ABSTAIN: 0

Oxnard Harbor District

Board President

ATTEST:


Board Secretary


APPROVED AS TO FORM:
BEST, BEST & KRIEGER LLP


Ruben Duran, General Counsel

7.0 APPENDIX B

December 21st 2023

UNPREDICTABLE PORT HUENEME RAIN STORM

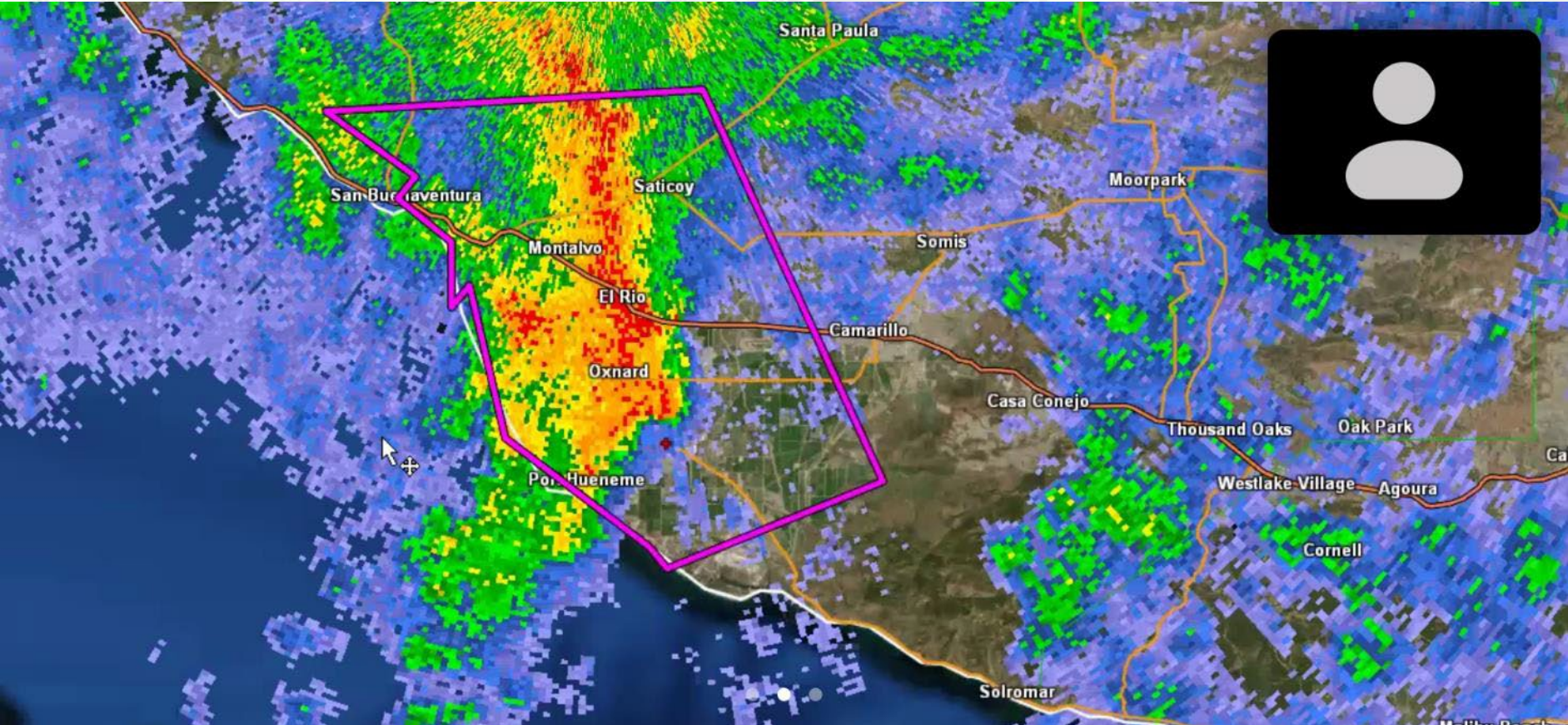


“This is likely the heaviest rainfall that has been observed in this area in recorded history and is likely a multi-centennial kind of event,” Daniel Swain, a climate **scientist with UCLA**, said during a briefing

Los Angeles Times

“The frequency of this kind of event is on the order of once in every thousand years,” meteorologist **Mike Wofford with the National Weather Service** in Oxnard said of the storm.

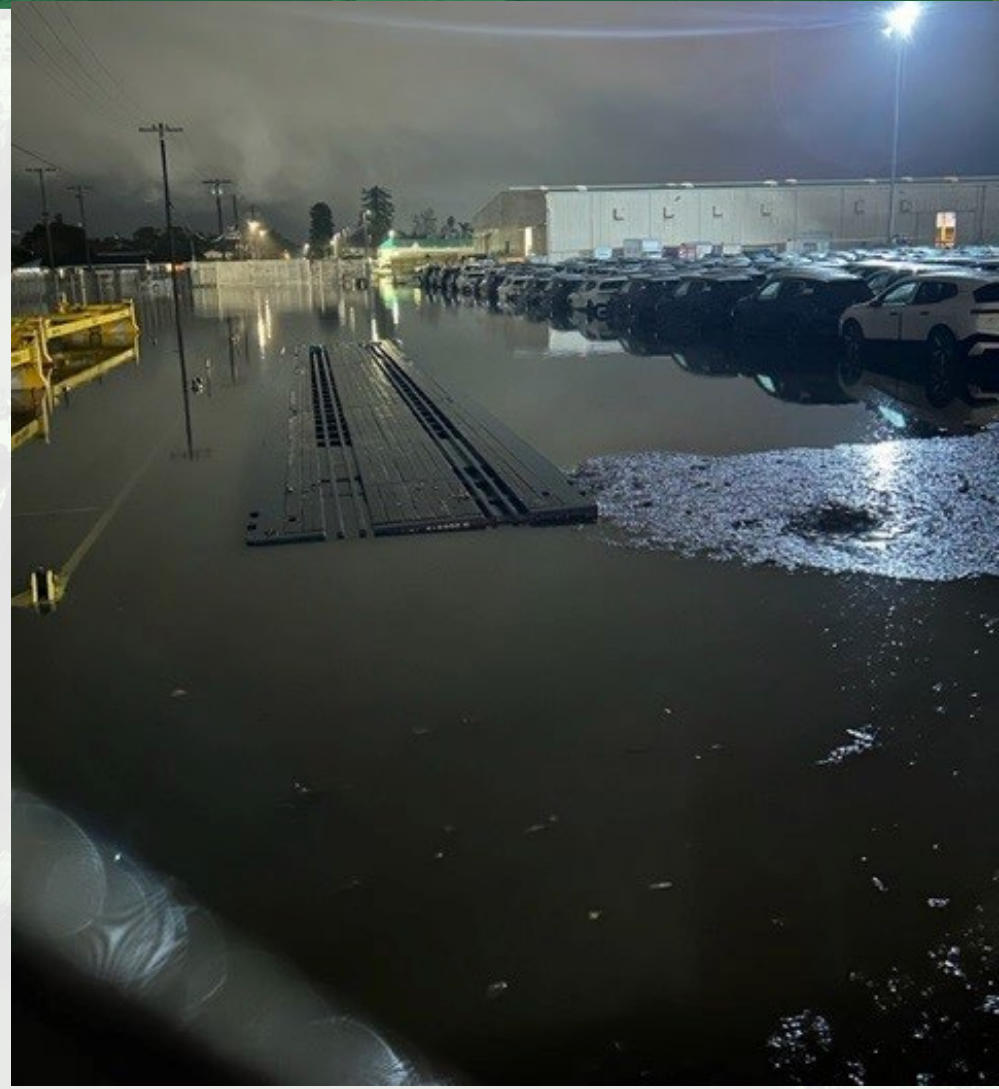
Climate Change Realities Now!



EMERGENCY RESPONSE

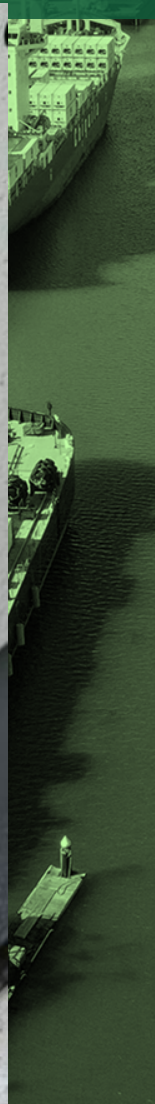
ALL-HANDS-ON-DECK – CITY AND PORT CREWS

- 2:15am Power outage to shore power; sparks/explosion reported
- Crews responded- emergency response triage initiated
- Efforts to keep storm water drains working and remove debris by Port and City crews
- Port Hueneme City vacuum truck deployed
- Efforts continued all night and the following day
- Despite best efforts, unable to abate the inundation



PORT PROPERTY- SHORE POWER SUB-STATION

DECEMBER 21ST



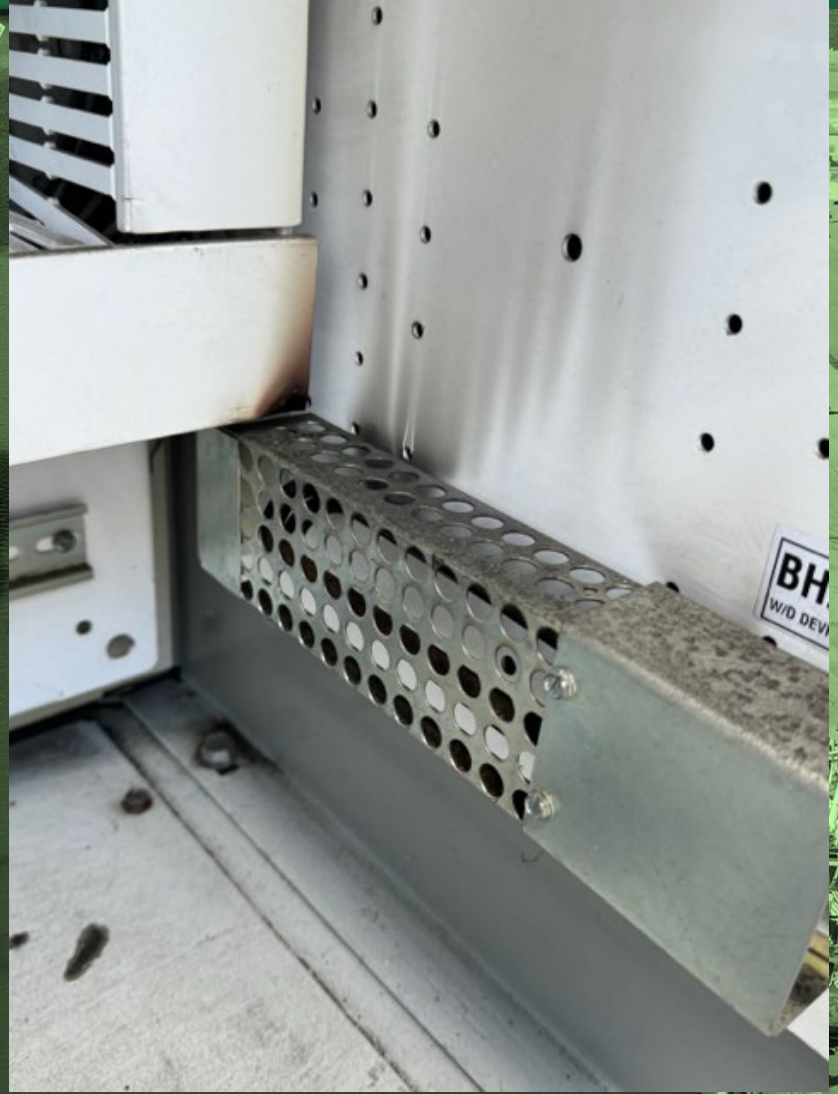
Clara Street Inundation

DECEMBER 21ST



PORT PROPERTY- SHORE POWER SUB-STATION

DECEMBER 21ST



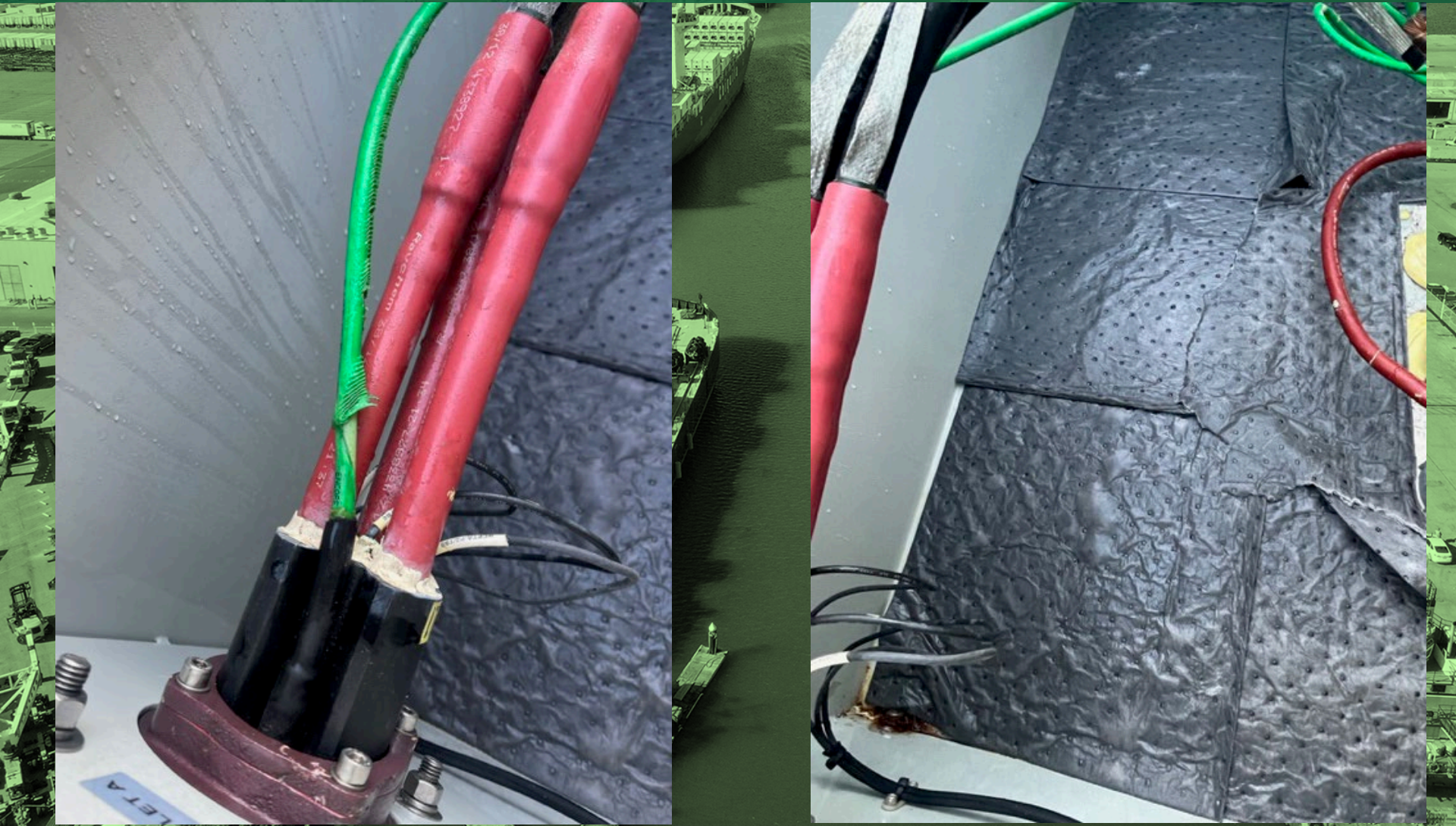
PORT PROPERTY- SHORE POWER SUB-STATION

DECEMBER 21ST



PORT PROPERTY- SHORE POWER VAULTS

DECEMBER 21ST



STORM DAMAGE IN THE COMMUNITY

DECEMBER 21ST



DECLARATION OF EMERGENCY ORDINANCE – HARBOR COMMISSIONERS

Urgency Ordinance approved by the Board of Harbor Commissioners on December 29, 2023, proclaiming a local emergency in response to a flooding and storm event that commenced December 21, 2023.



DAMAGE ESTIMATES

DECEMBER 21, 2023, STORM EVENT

Item	Description	Location	Cost Estimate	Insured
Shorepower Electrical Infrastructure; Shorepower Cavotec Boxes	6.6KV electrical switchgear and infrastructure that supplies power to the vaults/cables for vessel cold-ironing; Six shore power vault on the wharf front for vessels to plug into	South Terminal N34.14639, W119.20295	\$39 Million	Estimate Provided
Yara Office, electrical	Port tenant office sustained greater than 6" of water inundation that impacted its truck weigh scale, network/internet and automated systems	South Terminal- N34.14, W119.20	\$67,000	Under Deductible
Subaru Office	Port owned office building offsite sustained water inundation damage	Edison Dr. Oxnard- N34.14274, W119.16718	\$50,000	Under Deductible
SEIU Overtime	Emergency response and recovery overtime labor	See breakout attached	\$20,000	Under Deductible
Schnieder Electric Support	Emergency response/recovery support, survey and assessment(s) labor only	South Terminal N34.14639, W119.20295	\$10,000	Under Deductible
H3 Electrical Services	Emergency response/recovery support, survey and assessment(s) labor	South Terminal N34.14639, W119.20295	\$10,000	Under Deductible
Drain filters	Fabric filter media with drain baskets torn.	Throughout the port premises	\$20,000	Under Deductible
333 roof	Roof leaks into administration office	333 Ponoma St.	\$100,000	Under Deductible
319 roof	Roof leaks into Ports America Offices	North Terminal; east side of warehouse	\$40,000	Under Deductible
Skip loader and skidsteer	Equipment rentals for 5 days	port wide	\$5,000	Under Deductible
Dewatering pump rental	2 pumps and 150' hose x2	port wide	\$3,000	Under Deductible
Hose for dewatering pumps	50' x 8 hose extensions for dewatering pumps	port wide	\$1,700	Under Deductible

TOTAL DAMAGE

\$39,326,700

WHAT WE ARE DOING

EFFORTS TO SECURE FUNDING FOR REBUILD

12/21	Storm Event – Incident Command Response
12/23	Initiated Insurance Process
12/27	VCOES Director Patrick Maynard Initial Visit
12/29	Emergency Proclamation- Board Adoption
1/11	Cal OES Performs Site Inspection with VCOES
1/13	H3 Engineering commences SP engineering
1/23	Proclamation of State Emergency – Governor
1/23	CARB Meeting to discuss regulatory situation
1/29	Insurance Adjusters Port Visit
Ongoing	Liberty Mutual – Working with Legal on Claim
Ongoing	Closely working with VC-OES & CAL-OES for next steps in CDAA process

WE NEED YOUR HELP

WE WANT TO PARTNER

YOUR GOVERNMENT, HOW CAN YOU HELP US?

- ✓ DID EVERYTHING RIGHT IN THE BEGINNING – PORT WAS COMPLIANT
- ✓ ALL CAPABLE SHIPS COULD BE SERVICED
- ✓ SYSTEM COMPLETELY DESTROYED
- ✓ FORCE MAJEURE – ACT OF GOD
- ✓ STARTING FROM SCRATCH – REBUILD

MINIMUM OF 1 ½ YEARS TO GET AT BERTH INFRASTRUCTURE REBUILT

REACHED OUT TO BONNET BARGE COMPANIES TO ENGAGE SERVICES

- ✓ CAEM: CAN'T COMMIT AT THIS TIME / ONE BARGE IN LA/LONG BEACH – CONTRACTED (NO INVENTORY / NO CAPITAL)
- ✓ AERAS: BUILDING FOR SAN DIEGO / NOTHING UNENCUMBERED / WE WILL KEEP TALKING WITH THEM (NO INVENTORY / NO CAPITAL)
- ✓ STAX: JUNE ARRIVAL IS POSSIBLE (HAVE CAPITAL TO BUILD – 3rd BARGE IN CONSTRUCTION – NOTHING AVAILABLE NOW)

COMPETITION TO PROCURE FROM OTHER PORTS FOR RO-RO REGS – CONTRACTING WITH OCEAN CARRIERS / NO GUARANTEES

Ro-Ro ARB REGS

AT BERTH EFFECTIVE, JANUARY 1, 2025



COMMUNITY STRONG

STANDING IN SOLIDARITY WITH THE PORT



- Office of Congresswoman Julia Brownley
- Assemblymember Steve Bennett
- VC Supervisor Kelly Long
- VC Vianey Lopez Represented
- Mayor Misty Perez, Port Hueneme
- Office of Senator Monique Limon
- EDC Executive Director Bruce Stenslie
- Ventura County Transportation Com.
- Labor: ILWU; Local 585; Teamsters; LIUNA 585; Pipefitters; Iron Workers
- Southern California Edison
- Technical Experts

8.0 APPENDIX C

EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

PROCLAMATION OF A STATE OF EMERGENCY

WHEREAS in late December 2023 and early January 2024 severe winter storms struck southern California bringing intense rainfall to San Diego and Ventura counties; and

WHEREAS on January 22, 2024, San Diego County experienced historic rainfall for the month of January; and

WHEREAS these winter storms caused widespread flooding, mudslides, and debris flows threatening life and safety, structures, and other critical infrastructure; and

WHEREAS the impacts from these winter storms also caused evacuations, road and school closures, and widespread damage to public and private property; and

WHEREAS under the provisions of Government Code section 8558(b), I find that conditions of extreme peril to the safety of persons and property exist due to these winter storms; and

WHEREAS under the provisions of Government Code section 8558(b), I find that the conditions caused by these winter storms, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to appropriately respond; and

WHEREAS under the provisions of Government Code section 8625(c), I find that local authority is inadequate to cope with the magnitude of the damage caused by these winter storms; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Proclamation would prevent, hinder, or delay the mitigation of the effects of these winter storms.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code section 8625, **HEREBY PROCLAIM A STATE OF EMERGENCY** to exist in San Diego and Ventura counties due to these winter storms.

IT IS HEREBY ORDERED THAT:

1. All agencies of the state government utilize and employ state personnel, equipment, and facilities for the performance of any and all activities consistent with the direction of the Office of Emergency Services and the State Emergency Plan. Also, all residents are to obey the direction of emergency officials with regard to this emergency in order to protect their safety.

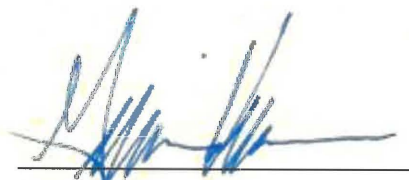
2. The Office of Emergency Services shall provide assistance to local governments, if appropriate, under the authority of the California Disaster Assistance Act, Government Code section 8680 et seq., and California Code of Regulations, Title 19, section 2900 et seq.
3. As necessary to assist local governments and for the protection of public health and the environment, state agencies shall enter into contracts to arrange for the procurement of materials, goods, and services necessary to quickly assist with the response to and recovery from the impacts of these winter storms. Applicable provisions of the Government Code and the Public Contract Code, including but not limited to travel, advertising, and competitive bidding requirements, are suspended to the extent necessary to address the effects of these winter storms.
4. Any fairgrounds the Office of Emergency Services determines suitable to assist individuals impacted by these winter storms shall be made available to the Office of Emergency Services pursuant to the Emergency Services Act, Government Code section 8589. The Office of Emergency Services shall notify the fairgrounds of the intended use and may immediately utilize the fairgrounds without the fairground board of directors' approval.
5. Any state-owned properties the Office of Emergency Services determines are suitable to address the impacts of these winter storms shall be made available to the Office of Emergency Services for this purpose in accordance with Government Code section 8570.
6. The provisions of Unemployment Insurance Code section 1253 imposing a one-week waiting period for unemployment insurance applicants are suspended as to all applicants who are unemployed as a direct result of these winter storms and apply for unemployment insurance benefits during the time period beginning December 21, 2023, and ending on the close of business on June 21, 2024, in San Diego and Ventura counties, and who are otherwise eligible for unemployment insurance benefits.
7. Vehicle Code sections 9265(a), 9867, 14901, 14902, and 15255.2, requiring the imposition of fees, are suspended with regard to any request for replacement of an identification card, driver's license card, vehicle registration certificate, certificate of title, or registration stickers, by any individual who loses such records as a result of these winter storms in San Diego and Ventura counties. Such records shall be replaced without charge.
8. The provisions of Vehicle Code sections 4602 and 5902, requiring the timely registration or transfer of title, are suspended with regard to any registration or transfer of title by any individual who is unable to comply with those requirements as a result of these winter storms in San Diego and Ventura counties. The time covered by this suspension shall not be included in calculating any late penalty pursuant to Vehicle Code section 9554.

9. Health and Safety Code sections 103525.5 and 103625, and Penal Code section 14251, requiring the imposition of fees, are suspended with regard to any request for copies of certificates of birth, death, marriage, and dissolution of marriage records, by any individual who loses such records as a result of these winter storms in San Diego and Ventura counties. Such copies shall be provided without charge.

I FURTHER DIRECT that as soon as hereafter possible, this Proclamation be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Proclamation.

This Proclamation is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 23rd day of January 2024.



GAVIN NEWSOM
Governor of California

ATTEST:

SHIRLEY N. WEBER, PH.D.
Secretary of State