



**Proposed Rule 2304  
Commercial Marine Ports –  
Container Terminals  
Working Group Meeting  
Technical Discussion on Harbor Craft**

**March 21, 2024, 1:00 PM PST**

**Port of Long Beach  
1st Floor Multipurpose Room  
415 W. Ocean Blvd.,  
Long Beach, CA 90802**

# Agenda

Introductions and Opening Remarks

Staff Presentation

Breakout Session – Harbor Craft

Report Back Out and Group Discussion

Closing Remarks



# Working Group Meeting Focus: Strategies to Further Reduce Emissions at the Ports

## Further emission reductions are needed at the Ports

- Goal of holding this series of Working Group Meetings is to discuss potential strategies that can achieve additional emission reductions from port sources

## Important to obtain technical stakeholder feedback on strategies

## Discussion today:

- Breakout groups to discuss mechanisms to further reduce harbor craft emissions associated with container terminal operations at the San Pedro Bay Ports
  - Open to feedback on other harbor craft
- Technical details focusing on constraints, opportunities, and community benefits and impacts

# Port Source Emissions at San Pedro Bay Ports



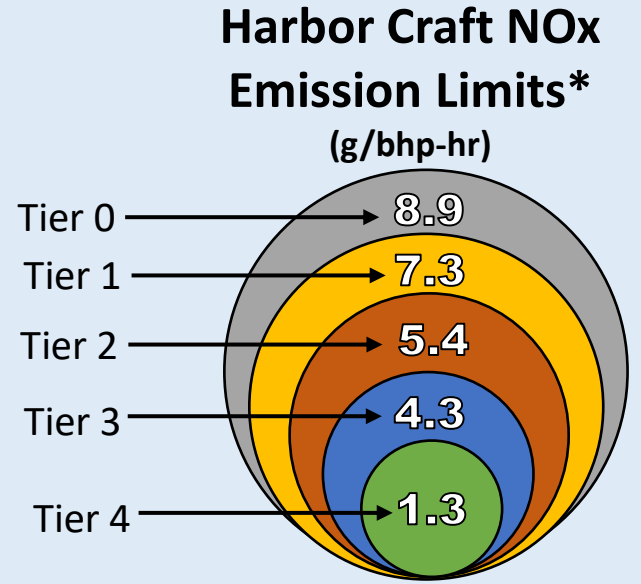
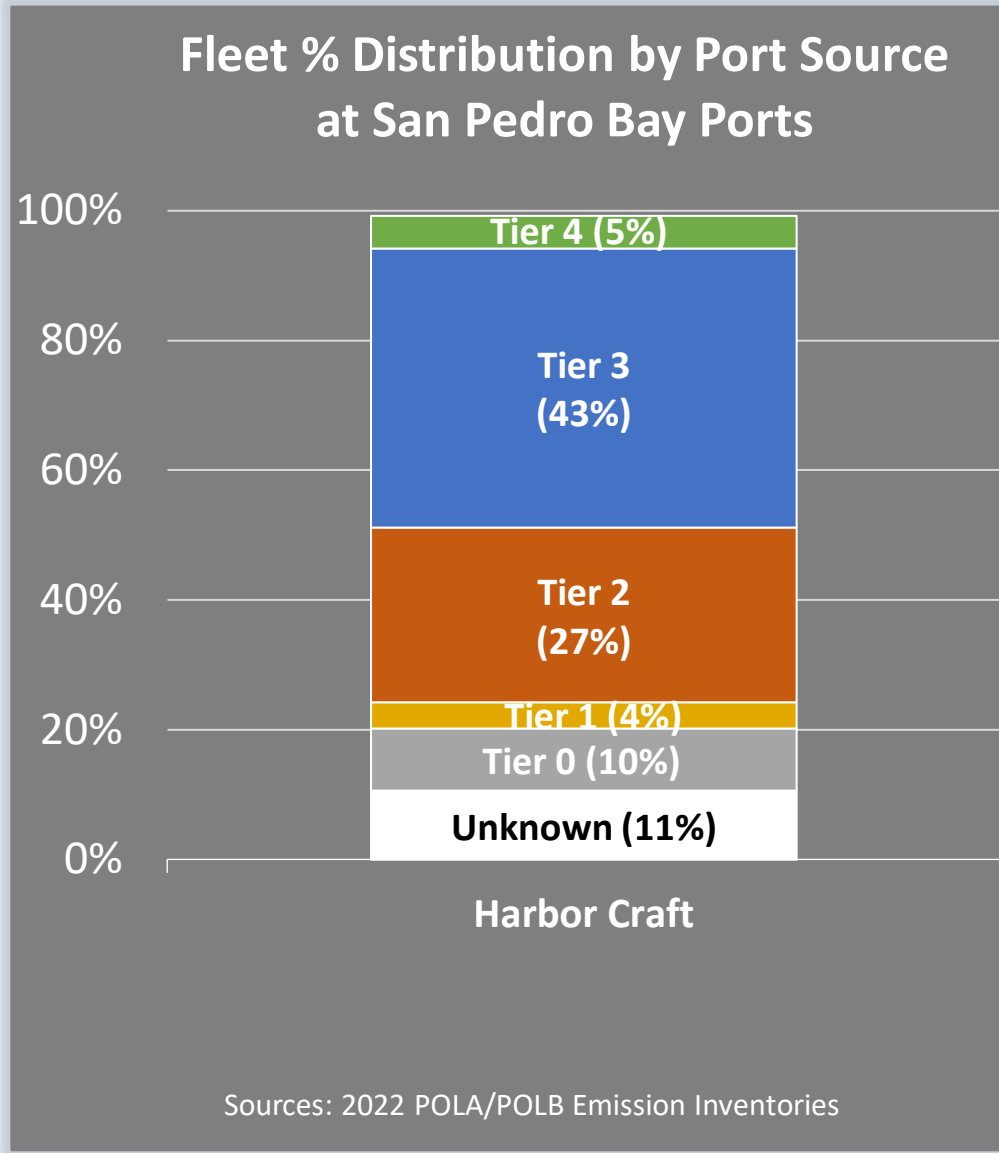
**Diesel Particulate Matter Emissions**  
Average Daily Total: **0.59 tons**



**NOx Emissions**  
Average Daily Total: **36 tons**

*13 – 20% of the total NOx emissions (tpd) in the South Coast Air Basin are from Port sources*

# Technology Implementation at San Pedro Bay Ports



\* Limits shown are approximate. Refer to specific regulations for details

Sources:  
[Federal Marine Compression-Ignition \(CI\) Engines: Exhaust Emission Standards \(EPA-420-B-20-021, July 2020\);](#)  
[CARB Commercial Harbor Craft Regulation \(2021\)](#)

# Potential Emission Reduction Mechanisms: Harbor Craft



## Desired Outcome

## Potential Mechanisms

Desired Outcome		
<b>Cleaner harbor craft ahead of CARB compliance schedule</b>	<b>Accelerate ZE turnover/entry into harbor craft fleets</b>	<b>Buildout ZE charging/fueling infrastructure</b>
Terminal operators include in customer contracts turnover to cleaner vessels by 20XX	Incentivize operators to meet specific ZEAT milestones or operate vessel fleet above Tier 4 level starting year 20XX	Port include equipment procurement/modernization schedule in harbor craft operator leases
Incentivize operators to repower/replace vessels to meet Tier 4 or cleaner by 20XX	Technology demonstrations and pilot projects	RFPs and grant funding for infrastructure installation, with incorporation into Ports' master plans
	Terminal operators include in customer contracts minimum use of ZE/hybrid assist tugs, if demo successful	

*Questions on these mechanisms?*

ZEAT = Zero Emission & Advanced Technology

RFP = Request for Proposal

Full table available as handout and here: <https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/ud-potential-port-emission-reduction-strategies---discussion-draft-pdf.pdf?sfvrsn=4>

# Discussion Pointers During Breakout Sessions



Looking for productive discussion on how emissions reduction mechanisms could be successful

Staff is open to additional mechanisms not in table as well



Looking for any supporting data or additional information from stakeholder feedback



Encourage multiple viewpoints to be offered and heard



Please treat others with courtesy, civility, and respect

# Before Going Into Breakout Sessions

## Next Steps

March /  
April

### Follow Up on Meetings

- Additional meetings as necessary
- Consolidate feedback
- Follow up with stakeholders

**“Potential Port Emission Reduction Strategies – Discussion Draft”** is available on the Facility-Based Mobile Source Measures webpage: <https://www.aqmd.gov/fbmsm>

*(Additional copies of the handout for today’s discussion can be found at each breakout table)*

To share additional information or supporting data or to meet individually with staff, please contact: [PortsISR@aqmd.gov](mailto:PortsISR@aqmd.gov)



# Staff Contacts

## Proposed Rule 2304

Charlene Nguyen  
Program Supervisor  
909-396-2648  
[cnguyen@aqmd.gov](mailto:cnguyen@aqmd.gov)

Elaine Shen  
Planning and Rules Manager  
909-396-2715  
[eshen@aqmd.gov](mailto:eshen@aqmd.gov)

Ian MacMillan  
Assistant Deputy Executive  
Officer  
909-396-3244  
[imacmillan@aqmd.gov](mailto:imacmillan@aqmd.gov)

Jessica Wei  
Assistant Air Quality Specialist  
909-396-3223

Dylan Plautz  
Air Quality Specialist  
909-396-2108

[PortsISR@aqmd.gov](mailto:PortsISR@aqmd.gov)

Sign up for the mailing list at: <https://www.aqmd.gov/sign-up> (select “Proposed Rule 2304”)

For more information and for materials from previous meetings,  
visit: [www.aqmd.gov/fbmsm](http://www.aqmd.gov/fbmsm) (click into “Commercial Marine Ports”)