Rule 462
Organic Liquid Loading

Public Workshop
April 2, 2025 – 10:00 am

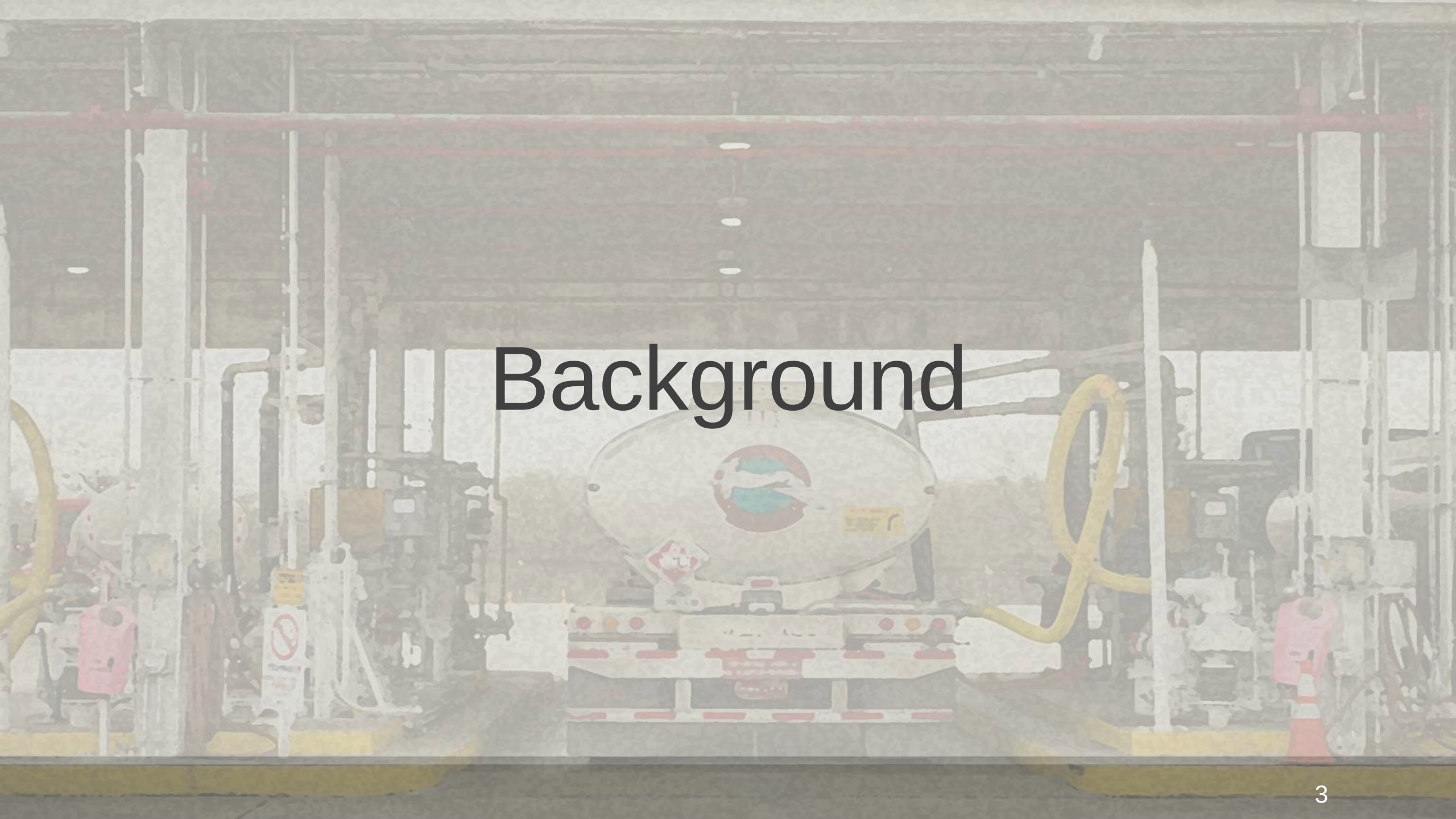
Zoom URL: **https://scaqmd.zoom.us/j/92768644368**

Dial In: 1 669 900 6833

Webinar ID: 927 6864 4368 (applies to all)

Agenda

- Background
- Proposed Amended Rule 462 (PAR 462)
- Impact Assessments
- Next Steps

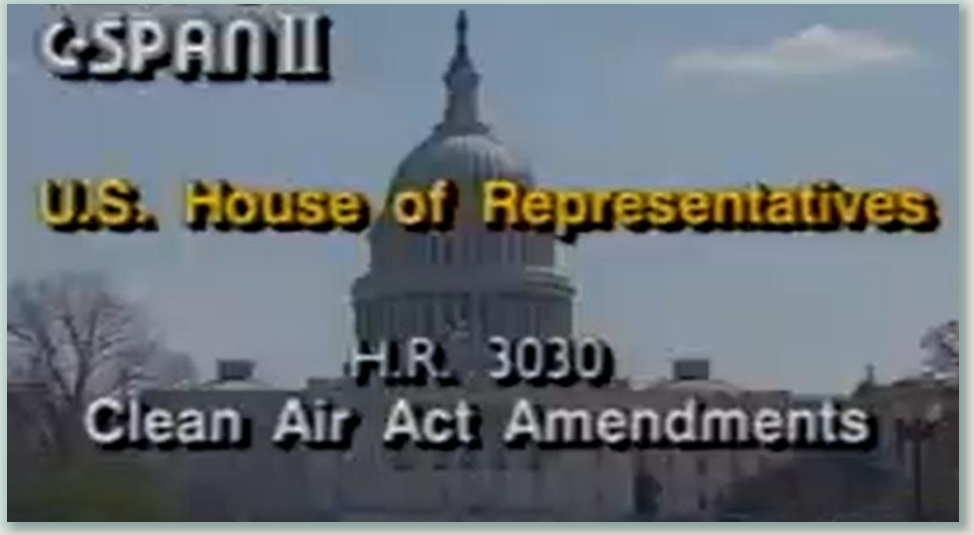


Background

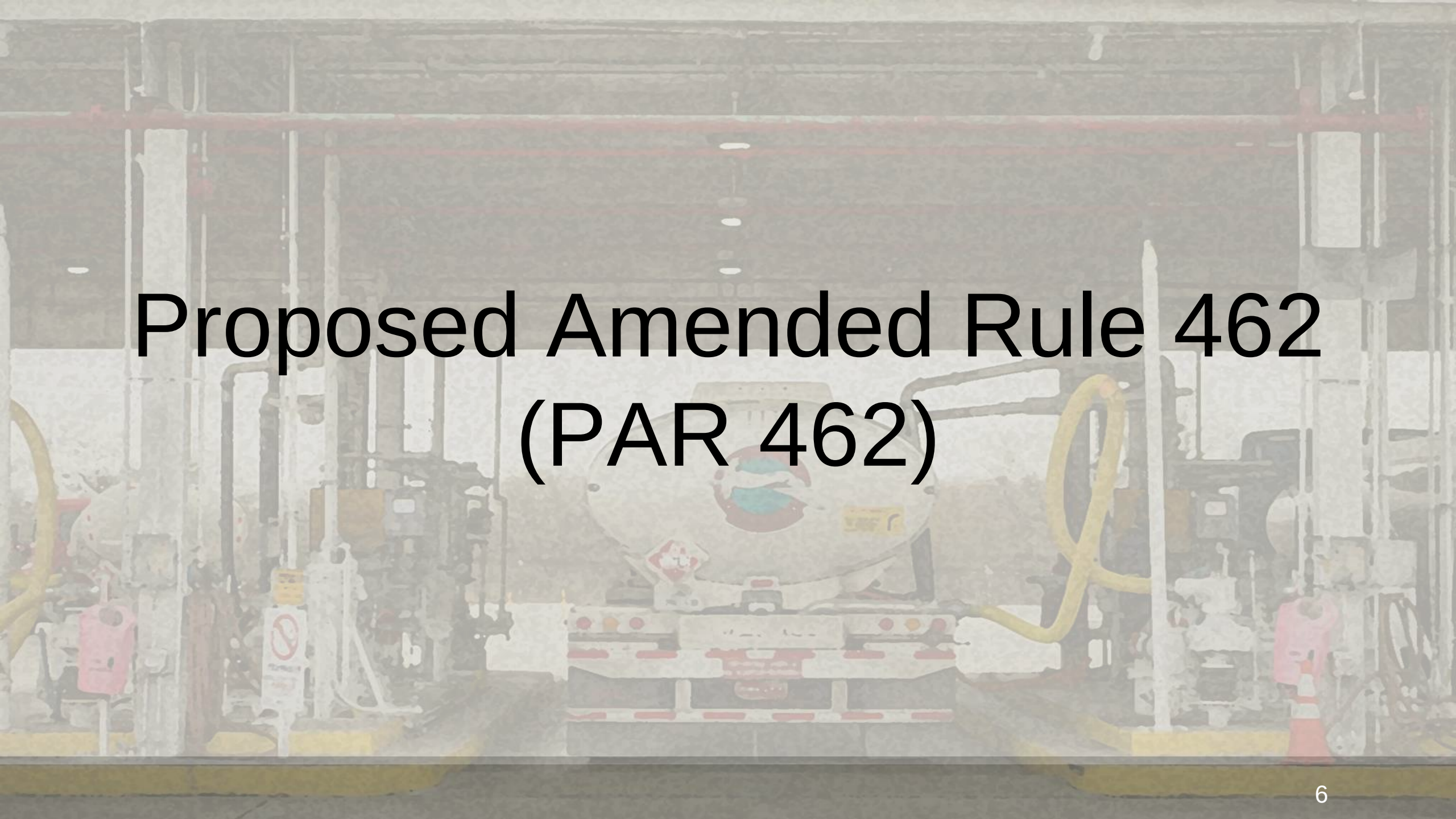
Background

- Rule development was initiated in response to:
  - Priorities in the Wilmington, Carson, West Long Beach (WCWLB) Community Emission Reduction Plan (CERP)
  - Partially implement the 2022 Air Quality Management Plan (AQMP) Control Measure FUG-01: Improved Leak Detection and Repair
- The WCWLB CERP and the 2022 AQMP identify and commit to improved leak detection requirements in South Coast AQMD rules

Contingency Measures



- Partially satisfies Clear Air Act contingency measure requirements for applicable ozone National Ambient Air Quality Standards (NAAQS) in the South Coast AQMD's jurisdiction
- Contingency measures implemented if U.S. EPA determines that South Coast AQMD has failed:
  - To meet a reasonable further progress (RFP) milestone, or
  - To attain an ozone NAAQS



Proposed Amended Rule 462 (PAR 462)

Summary of Proposals

- Reordering subdivisions
- Adding new definitions to clarify amendments being proposed
- Requiring the use of enhanced leak detection technology
- Establishing a lower VOC limit for vapor disposal systems and vapor recovery systems
- Requiring source testing of vapor recovery systems and vapor disposal systems every 5 years for Class A facilities
- Introducing a contingency measure for applicable ozone NAAQS for Coachella Valley

Rule Organization

PAR 462 is organized in the following subdivisions:

a) Purpose
b) Applicability – formerly subdivision (c)
c) Definitions – formerly subdivision (b)
d) Requirements
e) Compliance Schedule
f) Compliance Determination/Test Methods
g) Recordkeeping Requirements
   - Previously called Recordkeeping
h) Distribution of Responsibilities
i) Ozone Contingency Measure
   - New subdivision
j) Exemptions – formerly subdivision (i)

Definitions (c)

- Added 5 new definitions to the rule to clarify new provisions:
  - Contingency Measure
  - Coupler
  - Optical Gas Imaging (OGI) Device
  - Residual Liquid
  - Visible Vapors
- Some definitions modified for clarity and/or consistency with other South Coast AQMD rules

Vapor Control Systems – Subparagraphs (d)(1)(D) and (d)(2)(C)

- Subparagraph (d)(1)(D) lowers VOC limit for vapor recovery systems and vapor disposal systems at Class A facilities from 0.08 pounds VOC per 1,000 gallons of organic liquid transferred to 0.04 pounds VOC per 1,000 gallons of organic liquid transferred
- Subparagraph (d)(1)(D) also requires facility to conduct source test every 5 years
  - Mechanism to verify compliance with VOC limit
- Subparagraph (d)(2)(C) updated to include vapor disposal systems in backpressure requirement for clarity
  - Consistent with subparagraph (d)(1)(H)

OGI Requirements – Throughout Subdivision (d)

- Effective July 1, 2026, facilities must be maintained free of visible vapors per:
  - For Class A facilities, subparagraph (d)(1)(G)
  - For Class B facilities, subparagraph (d)(2)(F)
  - For Class C facilities, subparagraph (d)(3)(C)
- Subparagraph (d)(8)(B) allows facilities to demonstrate that visible vapors are less than 3,000 ppm VOC to avoid violation

Leak Inspections – Paragraph (d)(6)

- Effective July 1, 2026, facilities must perform monthly inspections using an OGI device per clauses (d)(6)(A)(i) and (d)(6)(A)(ii)
  - ➢ Existing leak inspection requirements are in addition to monthly OGI inspections
- Visible vapors must be repaired within 72 hours per subparagraph (d)(6)(B)
  - ➢ Consistent with requirement for facility vapor leaks and liquid leaks

OGI Inspection Requirements – Paragraph (d)(7)

- OGI inspections must be performed by trained personnel per subparagraph (d)(7)(A)
- OGI devices to be operated and maintained in accordance with manufacturer's specifications per subparagraph (d)(7)(B)
- In lieu of OGI inspections, alternative inspection methods allowed if approved by U.S. EPA and submitted to South Coast AQMD for subsequent approval per subparagraph (d)(7)(C)

Removal of Residual Liquid – Subparagraph (d)(8)(A)

- The owner or operator may remove residual liquid from the coupler if South Coast AQMD personnel detect VOCs
- The coupler will be retested by analyzer or OGI device, as applicable, to determine compliance

Compliance Schedule – Subdivision (e)

- Removed obsolete rule language with past effective dates throughout subdivision
- Clarified California Air Resources Board (CARB) certification for vapor control systems is needed only if required by Health and Safety Code per subparagraphs (e)(1)(A) and (e)(2)(A)

Source Testing – Paragraph (f)(8)

Added modern source testing procedures to align with other South Coast AQMD rules in subparagraphs (f)(8)(A) through (f)(8)(F):

- Submit source test protocol for approval prior to source testing
- Submit new or updated protocol if control system changed
- Report source testing schedule at least 10 days prior to source testing
- Report changes to source testing schedule no later than 24 hours prior to start of source test
- Conduct source testing pursuant to most recently approved protocol
- Submit source test report to South Coast AQMD within 60 days of source testing

Recordkeeping Requirements – Subdivision (g)
Distribution of Responsibilities – Subdivision (h)

- For subdivision (g):
  - Updated recordkeeping requirements to also include OGI inspections per paragraph (g)(2)
- For subdivision (h):
  - Added references to paragraphs (d)(7) *OGI Inspections* and (f)(8) *Source Testing* as responsibilities of owners and operators

Ozone Contingency Measure – Subdivision (i)

- Coachella Valley ozone contingency measures would only be implemented if South Coast AQMD fails to:
  - Meet an RFP milestone; or
  - Attain an ozone NAAQS
- The proposed contingency measure would increase OGI inspection frequencies to every two-week intervals instead of monthly
- The proposed contingency measure would take effect 60 days after U.S. EPA determination of failure to meet an RFP milestone or attain an ozone NAAQS

Exemptions – Subdivision (j)

- Exemptions are now in subdivision (j) to accommodate the newly-added contingency measure subdivision
- Paragraph (j)(1) updated to exempt equipment from violation if visible vapors are detected via OGI self inspections, provided repairs or replacement of applicable equipment is completed within 72 hours per subparagraph (d)(6)(B)

Impact Assessments

Emission Reductions

Proposed Requirement	Emission Reductions (tons VOC per day)
Monthly OGI Inspection	0.06
Reducing VOC Emission Limit for Vapor Control Systems	0.30
Total	0.36

- PAR 462 impacts approximately 51 facilities, classified as Class A, Class B, or Class C facilities based on their throughputs
- Monthly OGI inspections expected to reduce VOC emissions by finding leaks faster than quarterly OVA inspections or not found with monthly sight, sound, and smell inspections
- Proposed VOC emission limit for vapor control systems already achieved in practice and will earn State Implementation Plan credit

Overview of Cost-Effectiveness Analysis

- Cost-effectiveness is based on Present Worth Value calculation
- Measured in cost per ton of pollutant reduced
- Factors and assumptions include:
  - Total capital cost
  - Annual operating and maintenance costs
  - Assumes 4% interest rate
  - 10-year equipment life span for OGI devices
  - Emission reductions

Cost-Effectiveness =

$$\frac{\text{Net Cost (Cost of OGI)}}{\text{Reductions (Tons of VOC emissions reduced)}}$$

Cost-Effectiveness

- Cost-effectiveness threshold is $36,000 per ton of VOC reduced, adjusted for inflation annually, as established in 2022 Air Quality Management Plan
- Cost data collected from site visits and vendors for OGI camera cost, labor cost, training, and maintenance

Proposed Requirements	Monthly OGI Inspections	OGI Inspections Every Two Weeks
Annualized Cost	$462,900	$670,200
VOC Emission Reductions (tons/year)	14.6	18.25
Cost-Effectiveness ($/ton)	$31,700	$36,700

Incremental Cost-Effectiveness for OGI

$$\textit{Incremental Cost-Effectiveness} = \frac{\text{Cost of Option 2} - \text{Cost of Option 1}}{\text{Benefit of Option 2} - \text{Benefit of Option 1}}$$

(Difference in cost for OGI)

(Additional tons of VOC emissions reduced)

- Incremental cost-effectiveness analysis is conducted when there is more than one control option which would achieve the emission reduction objective
- The incremental cost-effectiveness between monthly OGI inspections and OGI inspections every 2 weeks is $56,800/ton VOC reduced

Conclusions for OGI Inspections

- Monthly OGI inspection is cost-effective
- OGI inspection every two weeks is cost-effective, but not incrementally cost-effective
- Proposing to require monthly OGI inspection for all Class A, Class B, and Class C facilities
- OGI inspection every two weeks proposed as a contingency measure for Coachella Valley

	Monthly	Every Two Weeks
Annual Cost ($)	$462,900	$670,200
Annual emission reductions (tons per year)	14.6	18.25
Cost-Effectiveness ($/ton)	$31,700	$36,700
Incremental Cost-Effectiveness ($/ton)	N/A	$56,800

Socioeconomic Impacts

- A Socioeconomic Impact Assessment will be prepared and released for public review and comment at least 30 days prior to the South Coast AQMD Governing Board Hearing for PAR 462, which is scheduled for June 6, 2025 (subject to change).

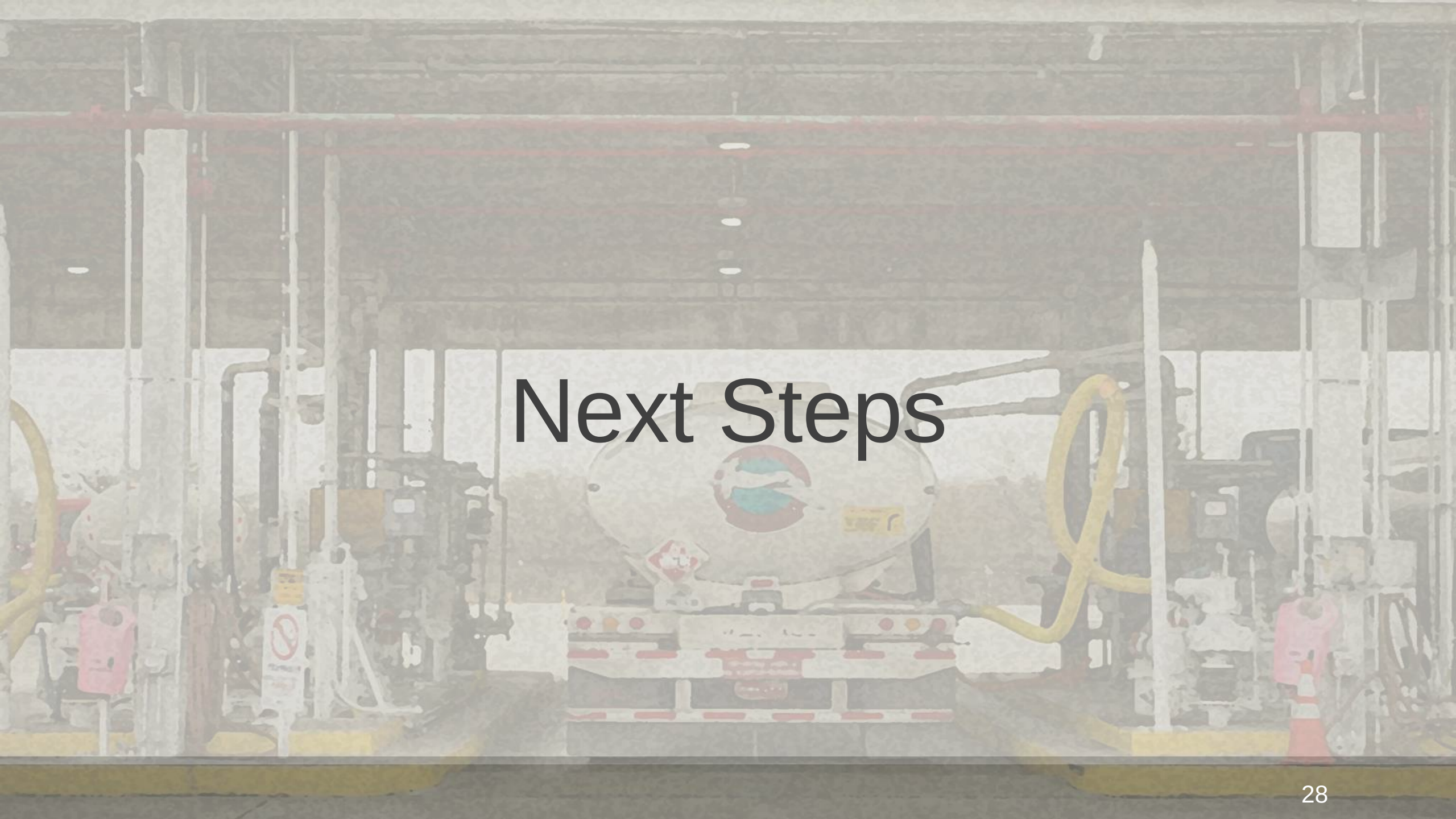
- Socioeconomic analysis will consider:
  - Types of affected industries, including small businesses
  - Range of probable costs or savings
  - Impacts on employment and the regional economy

California Environmental Quality Act (CEQA)

No significant adverse environmental impacts are expected

PAR 462 is exempt from CEQA

A Notice of Exemption will be prepared



Next Steps

Next Steps for PAR 462

- Written Comments Requested by April 16, 2025
- Stationary Source Committee – April 18, 2025*
- Set Public Hearing – May 2, 2025*
- Public Hearing – June 6, 2025*

*Subject to Change

Staff Contacts

South Coast AQMD staff is available to assist you with any questions or comments

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