AGENDA

➢ Background
➢ Proposed updates to rule
➢ Potential outcomes of rule
➢ Next Steps
BACKGROUND - ISR RULEMAKING PROCESS TO DATE

2018
- Board directs staff to begin rulemaking

2019
- 1st Draft Rule
- 1st Draft WAIRE Menu & Technical Report

2020
- 2nd Draft Rule and WAIRE Menu
IMPACT OF COVID-19 ON THE ECONOMY & LOGISTICS

In September, ocean shipping spot rates from Shanghai-LA tripled since March to reach all-time high****

In 3rd quarter, industrial vacancy rates in 4-county region remain <4% and lease rates are rising*****

ENVIRONMENTAL BURDEN ON COMMUNITIES NEAR WAREHOUSES

CalEnviroScreen Percentile
(population-weighted average)

South Coast AQMD

61st

Communities <0.5 mi. of a warehouse

80th
KEY CARB ACTIONS IN 2020 TO REDUCE NOx

- **Advanced Clean Trucks**
  - ZE mandate on vehicle manufacturers for truck sales, phase-in starts in 2024
  - NOx reductions: 2023→ 0 tpd, 2031→ ~2.4 tpd
  - Advanced Clean Fleets rulemaking initiated

- **Low NOx Omnibus**
  - Lower emission standard for all engines starting in 2024, and tightening in 2027
  - Updated certification and warranty requirements
  - NOx reductions: 2023→ 0 tpd, 2031→ ~7 tpd

- **At-Berth**
  - Expands the requirements for vessels to reduce their at-berth emissions
  - NOx reductions: 2023→ ~4.9 tpd, 2031→ ~3.6 tpd

- **2016 AQMP total NOx reductions needed beyond existing requirements:**
  - 2023→ 135 tpd
  - 2031→ 142 tpd
Governor’s executive order (N-79-20) set new goals*
- 100% ZE on-road sales by 2035
- 100% HD on-road fleet by 2045 (drayage 100% ZE by 2035)
- 100% ZE off-road fleet by 2035

Public Utilities Commission
- Transportation Electrification Framework development
- ‘Rule 18’ revision** (makes it easier for 3rd parties to resell electricity for MD-HD and off-road vehicles)

Energy Commission
- AB 2127 Vehicle Charging Infrastructure draft analysis***
  - ~40,000 Class 3-8 trucks in 2030 requires ~24,000 50kW chargers and ~3,300 350 kW chargers

CARB Draft Mobile Source Strategy (Oct. 2020)

Key Takeaways

- Ozone standards
- Scenario does not address meeting 2023 standard
- Staff still evaluating whether scenario presented will meet 2031 standard
- Some categories are more difficult to achieve projected reductions
- Other categories with opportunities for reductions will need to make up shortfall
- ISR is one potential opportunity

Stationary and Area Sources

<table>
<thead>
<tr>
<th>Category</th>
<th>Draft MSS Baseline</th>
<th>Draft MSS Control</th>
<th>Percent Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Duty On-Road</td>
<td>20</td>
<td>18</td>
<td>(-9%)</td>
</tr>
<tr>
<td>Medium Duty On-Road</td>
<td>10</td>
<td>9</td>
<td>(-2%)</td>
</tr>
<tr>
<td>Heavy Duty On-Road</td>
<td>5</td>
<td>2</td>
<td>(-58%)</td>
</tr>
<tr>
<td>Harbor Craft</td>
<td>2</td>
<td>0.5</td>
<td>(-76%)</td>
</tr>
<tr>
<td>Recreational Watercraft</td>
<td>5</td>
<td>4</td>
<td>(-11%)</td>
</tr>
<tr>
<td>Ocean Going Vessels</td>
<td>10</td>
<td>2</td>
<td>(-81%)</td>
</tr>
<tr>
<td>Locomotives</td>
<td>5</td>
<td>4</td>
<td>(-74%)</td>
</tr>
<tr>
<td>Aircraft</td>
<td>5</td>
<td>4</td>
<td>(-23%)</td>
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<tr>
<td>Airport Ground Support Equipment</td>
<td>5</td>
<td>4</td>
<td>(-26%)</td>
</tr>
<tr>
<td>TRU</td>
<td>5</td>
<td>4</td>
<td>(-26%)</td>
</tr>
<tr>
<td>Small Off-Road</td>
<td>5</td>
<td>4</td>
<td>(-45%)</td>
</tr>
<tr>
<td>Forklifts</td>
<td>5</td>
<td>4</td>
<td>(-84%)</td>
</tr>
<tr>
<td>Construction Equipment</td>
<td>5</td>
<td>4</td>
<td>(-26%)</td>
</tr>
<tr>
<td>Cargo Handling Equipment</td>
<td>5</td>
<td>4</td>
<td>(-69%)</td>
</tr>
</tbody>
</table>

2031 NOx Emissions in South Coast (tons/day)

*From 2016 AQMP
NEED FOR WAREHOUSE ISR

- Region continues to have worst air quality in the nation (except during some wildfires)
- Existing regulations are not sufficient to meet 2023 or 2031 ozone standards
  - Proposed state regulations also will not meet 2023 standard and are unlikely to achieve 2031 standard
- Sufficient incentive funding has not yet been identified to achieve necessary emissions reductions
- Communities near warehouses experience higher environmental burden
- State’s goals for ZE MD-HD vehicles requires actions beyond what CARB can require on its own
OVERVIEW OF PROPOSED WAREHOUSE ISR REQUIREMENTS

Requirements

Earn WAIRE Points Annually

Reporting

Applicability
- Owners and operators of warehouses >100,000 sf
- Owners are only subject to reporting, but they can voluntarily earn points
- Operators only leasing <50,000 sf for warehousing activities, are just subject to limited reporting *

*New Option

WAIRE Menu
Mitigation Fee
Custom WAIRE Plan
Limited transferring/banking with early or over-compliance
Warehouse Operations Notification
Initial Site Information Report
Annual WAIRE Report

*New
UPDATES TO PROPOSED DRAFT RULE

➢ Custom Plan option to earn Points added [(d)(4)]
➢ Reference to WAIRE Implementation Guidelines added [(f) and throughout the rule]
➢ Option to earn Points earlier than first compliance year added [(d)(6)(B)(iii)]
➢ Class 2b-3 trucks added [(d)(B), (e)(2)(B)(iii), and Menu]
➢ Limited exemptions added
  ➢ 50,000 sq. ft. lower threshold for operators in a multi-tenant warehouse [(g)(1)]
    ➢ Reduced reporting and no Points requirements
  ➢ Unforeseen Circumstance (e.g., malfunctioning equipment) [(g)(2)]
➢ TRUs and solar added to the WAIRE Menu [Table 3]
  ➢ Stationary battery storage removed from Menu (but can be included in Custom Plan)
➢ Mitigation fee escalation for use in consecutive years removed
➢ Re-ordering of some sections and clarifying text added
CUSTOM WAIRE PLAN

➢ Option added to provide additional flexibility for warehouse operators to take actions to reduce emissions or to facilitate emission reductions

➢ Can be used for actions that do not readily have default characteristics that would align with a menu-based approach

➢ Potential examples:

➢ Off-site ZE charging/fueling infrastructure installations (including those funded by multiple operators)

➢ Cold storage facilities modifying their building’s energy use to reduce emissions from the electrical grid

➢ Operators who own a fleet of TRUs that demonstrate overcompliance with CARB’s proposed TRU regulation (if the regulation is approved)

➢ Other projects also possible
CUSTOM WAIRE PLAN MUST MEET STRICT CRITERIA

➢ Method for determining WAIRE Points earned will be included in WAIRE Program Implementation Guidelines and will be aligned with methods in draft WAIRE Menu Technical Report
  ➢ NOx reductions, Diesel PM reductions, Incremental cost

➢ Regional and local emission reductions must be quantifiable, verifiable, and real
  ➢ Any Plan relying on emission reductions based on vehicle miles travelled (VMT) reductions must demonstrate that the reduced VMT is surplus to the most recent Regional Transportation Plan and AQMP

➢ Emission reductions must be achieved within three years after plan approval
CUSTOM WAIRE PLAN APPLICATION TIMELINE

• >9 months before anticipated use of Points from Plan, operator submits Plan application

• ≤30 days after receipt, EO conducts initial review and confirms receipt

• >30 days before approval, Plan Application posted online and available for public comment

• ≤3 months after receipt, EO approves or rejects Plan

• ≤30 days after rejection, operator may resubmit corrected Plan

• ≤30 days after receipt, EO approves or rejects Plan for current compliance period

• Before Annual WAIRE Report due, operator either implements approved Plan or earns WAIRE Points from Menu or mitigation fee
CUSTOM WAIRE PLAN APPLICATION ELEMENTS

➢ Description of how proposed action will achieve emission reductions as quickly as feasible and $\leq 3$ years after Plan approval
  ➢ Actions that don’t directly result in emission reductions can still earn Points (e.g., installing offsite charging infrastructure)

➢ Quantification of NOx or Diesel PM emission reductions in the South Coast AQMD and within three miles of the warehouse

➢ Description of method to verify emission reductions

➢ Description of any permits or approvals needed to complete Plan

➢ Schedule of key milestones to complete the action
  ➢ Multi-year Plans require semi-annual progress reports
  ➢ EO may rescind approval of Plan if insufficient progress being made
ANALYSIS OF POTENTIAL UNIVERSE OF WAREHOUSES SUBJECT TO RULE

- Multiple databases evaluated
  - Costar, Dun & Bradstreet, InfoUsa, GoogleEarth, Fleetseek, Leonard’s List, Powersys, South Coast AQMD internal data
- ‘Snapshot’ of universe presented for rule analysis purposes
  - Universe expected to change routinely as new operators move into and out of buildings, operations change, new warehouses constructed, etc.
- Reporting required by proposed rule will provide more definitive information about warehouse operations
SNAPSHOT ANALYSIS OF UNIVERSE OF WAREHOUSES*
SUBJECT TO WAREHOUSE ISR

- 3,320 Warehouse Operations Notification Report
- 2,902 Warehouses Earn WAIRE Points (3,471 operators)
- 515 Warehouse owners are operators
- 202 Warehouses near the ports
- 1,276 Warehouses have operators who own a fleet
- 42 Cold storage warehouses
- 214 Warehouses with existing solar panels
- 1,093 Potential buildings with multiple operators

*Schematic diagram is simplified
POTENTIAL OUTCOMES OF WAREHOUSE ISR

- Range of potential stringency being analyzed
  - 0.0001 to 0.005 Points per Weighted Annual Truck Trip
- PR 2305 will include two phase-in schedules
  - Size of warehouse determines when Points must first be earned
  - Stringency of rule will phase in through time

*Example Stringency Schedule*

<table>
<thead>
<tr>
<th>Size of Warehouse</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whses &gt;250k sf</td>
<td>0.0001</td>
<td>0.0002</td>
<td>0.0003</td>
<td>0.0003</td>
<td>0.0003</td>
</tr>
<tr>
<td>Whses &gt;150k sf - 250k sf</td>
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<td>0.0002</td>
<td>0.0003</td>
<td>0.0003</td>
<td>0.0003</td>
</tr>
<tr>
<td>Whses &gt;100k sf - 150k sf</td>
<td>0.0001</td>
<td>0.0002</td>
<td>0.0003</td>
<td>0.0003</td>
<td>0.0003</td>
</tr>
</tbody>
</table>
NEXT STEPS

➢ CEQA - NOP release anticipated in October
  ➢ Scoping meeting date not yet determined
➢ Next working group meeting this fall to discuss proposed stringency of rule
➢ Virtual community meetings tentatively scheduled for Jan. 13 and 14
➢ Anticipate Board hearing to consider rule in March 2021