Proposed Control Measure for Ocean-Going Vessels At Berth

August 27, 2020
Building On An Effective Regulation

• Existing At-Berth Regulation was approved in 2007

• Ground-breaking Regulation
  o Successful joint effort between industry, ports, and the State
  o Emissions reduced from over 13,000 visits since 2014
  o Achieved an 80% reduction in emissions from cruise, container, and reefer vessels
  o Shore power installed at 65 berths and on >500 vessels
  o 3 capture and control systems built
  o Global model to combat port emissions
Need For Proposed Regulation

- Port communities heavily impacted by freight
  - Increased risk of premature death, hospitalizations, and cancer risk
- Need further reductions and public health benefits
- Address implementation challenges with existing regulation

(CARB) (SB 535 Disadvantaged Communities in red)
Public Process

• Extensive outreach efforts
  o 5 sets of public workshops, 2 webinars
  o 250+ community and industry meetings/engagements
  o Over 175 public comments received and reviewed

• Proposed Regulation available for public comment between October 15 - December 9, 2019

• CARB Board heard initial proposal on December 5, 2019 and updates at the June 25, 2020, public hearing

• Two “15-day” changes made available for public comment
Summary of Second 15-Day Changes

• Adjustment of implementation dates:
  o Container/Reefer/Cruise: from 2021 to 2023
  o Ro-ro: from 2024 to 2025
  o Innovative Concept application and terminal/port plan due dates adjusted accordingly

• Extension of Innovative Concept approval compliance period from 3 years to up to 5 years

• Definition updates and language clarifications
Summary of Stakeholder Comments

- Overall timelines are still too soon/not soon enough
- Innovative Concepts (IC) approval extension is welcome with backstops to ensure reductions are achieved
- Interim Evaluation in 2022 should also include container, reefer, and cruise vessels in addition to tankers and ro-ros
- More incentive funding is needed
Final Proposed Regulation

- Control requirements:
  - Container, Reefer, Cruise: 1/1/2023
  - Ro-ro: 1/1/2025
  - Tanker: 1/1/2025 (SoCal) and 1/1/2027 (NorCal)
- Alternative compliance pathway: Innovative Concepts
- Time to connect to CAECS* extended from 1 to 2 hours
- Interim evaluation - December 1, 2022

*CAECS = CARB Approved Emission Control Strategy
Proposed Regulation Achieves Significant Emissions Reductions

Projected Statewide Emissions (Tons Per Year)
Proposed Regulation Provides Significant Reduction In Potential Cancer Risk

- POLA and POLB: 55% decrease in cancer risk
  - 2031 Existing Reg.
  - 2031 Proposed Reg.
  - Referee
  - General
  - Bulk
  - RoRo
  - Cruise
  - Tanker
  - Container

- Richmond Port and Tanker Terminal: 55% decrease in cancer risk
  - 2031 Existing Reg.
  - 2031 Proposed Reg.
  - Tanker
  - Bulk
  - RoRo

* Richmond does not receive container, reefer, or cruise visits
Provides Additional Benefits

- Reduced mortality, hospitalizations, and emergency room visits
- Reduction in exposure to toxic diesel PM
- Additional benefits not monetized
- Reductions in greenhouse gases, reactive organic gases, and black carbon emissions
- Stimulates potential business opportunities for California
- Advances research and development for cleaner marine technologies
- Helps support shore power use outside of California
Costs and Benefit Valuation

- Total net costs (2021 - 2032): $2.23 billion
- Statewide valuation from avoided adverse health outcomes summed (2021- 2032): $2.32 billion*
- Unit cost per vessel type in 2030:
  - Container/Reefer: $1.14/TEU**
  - Cruise: $4.65/passenger
  - Ro-Ro: $7.66/automobile
  - Tanker: <$.01/gallon of finished product

*Includes only quantifiable benefits
**TEU = Twenty-foot Equivalent Unit
Environmental Analysis

- Draft Environmental Analysis (EA) completed
- Potentially significant impacts found for some resource areas
- Released for public comment
  - October 15, 2019 – December 9, 2019
- CARB prepared the Final EA and written responses to comments received on the Draft EA
  - Released on August 25, 2020
Staff Recommendation

- Staff recommends the Board adopt Resolution 20-22, which includes:
  - Certification of the Final EA, including the written responses to environmental comments and making the required CEQA findings
  - Adoption of the Proposed Regulation
  - Commitment to community engagement prior to implementation of any innovative concept strategies
  - Support for deployment of human-operated zero emission technology
  - Engagement with the articulated tug barge industry
  - Commitment to update the Board annually on implementation