



New Control Measure for Ocean-Going Vessels At Berth

Presentation for Stockton Community Session

February 1, 2021



Overview of At Berth Regulation

- Existing At-Berth Regulation reduced emissions from 13,000 visits since 2014
 - 80% reduction in emissions from cruise, container, and reefer vessels
- Why was a new regulation needed?
 - Provides further reductions in port communities
 - Includes additional ports and terminals (such as Port of Stockton)
 - Reduces emissions from additional 2300+ vessel visits per year
 - Adds tanker and roll-on/roll-off (auto carrier) vessels



New At Berth Regulation

- Adopted by CARB’s Board on August 27, 2020
- Every vessel visiting a regulated terminal must connect to shore power or alternative control strategy
- Compliance required by:
 - January 1, 2023: Container, Reefer, Cruise
 - January 1, 2025: Auto carrier
 - January 1, 2025 (SoCal) and January 1, 2027 (NorCal): Tanker
- Alternative compliance pathway: Innovative Concepts
- Interim Evaluation - December 1, 2022



Port of Stockton Specifics

- The Port of Stockton receives primarily dry bulk, general cargo, and liquid bulk tanker vessels.
 - About 200 vessels per year on average
 - Consistent number of visits throughout the year
- Typically carrying:
 - Dry bulk/general cargo: containers, logs, steel, cement, grains, and minerals
 - Liquid bulk tankers: molasses, liquid fertilizer, gasoline
- Dry bulk vessels make up ~58% of vessel calls, tankers ~30%, general cargo at ~12%*
- Based on 2016 data, average stays at berth are:
 - Dry bulk and general cargo vessels: ~3-4 days
 - Tankers: ~2 days



Dry Bulk Vessel



Tanker



*Based on 2014-2018 visit data

Impact of New Regulation to the Port of Stockton

- Around 30-40 tanker visits expected to be regulated under new At Berth Regulation beginning in 2027

Berth Level CARB Staff Analysis of Potential Emission Reduction Strategies
September 2019

Port/Terminal/Berth	# of Tanker Visits in 2017	# of Frequent Tanker Vessels Visiting Terminal in 2017	# of Visits by Frequent Tanker Vessels in 2017	Assumed Control Technology & Estimated # of C+C Systems Needed	Additional Infrastructure Improvements Needed?	Reasoning
Stockton	34	1	7	1 Land-based C+C, 2 cranes	No	CARB staff is still in the process of the Port evaluation.
Stockton Port Authority	34	1	7	1 Land-based C+C, 2 cranes	No	
Berth SCK 7-8	34	1	7	2 cranes		SF Bar Pilots did not indicate any significant navigational concerns about using a barge-based C+C at this berth.

One berth used 131 days of the year, two berths used at same time 23 days of the year, three berths used at same time 2 days of the year (in 2017)



Questions?



Commercial Harbor Craft (CHC)

- Tugboat and Workboat operations in Stockton
- Current rule requires upgrade to Tier 2/3 engines
- Amendments would require cleanest available combustion and zero-emission where feasible
- Board date for amendments: late 2021, implementation: 2023-2031



Cargo Handling Equipment (CHE)

- 17 facilities reported to CARB in greater Stockton area
- Current rule requires best available controls for diesel particulate matter
- Amendments would require zero-emission
- Board date: 2023, implementation: 2026-?

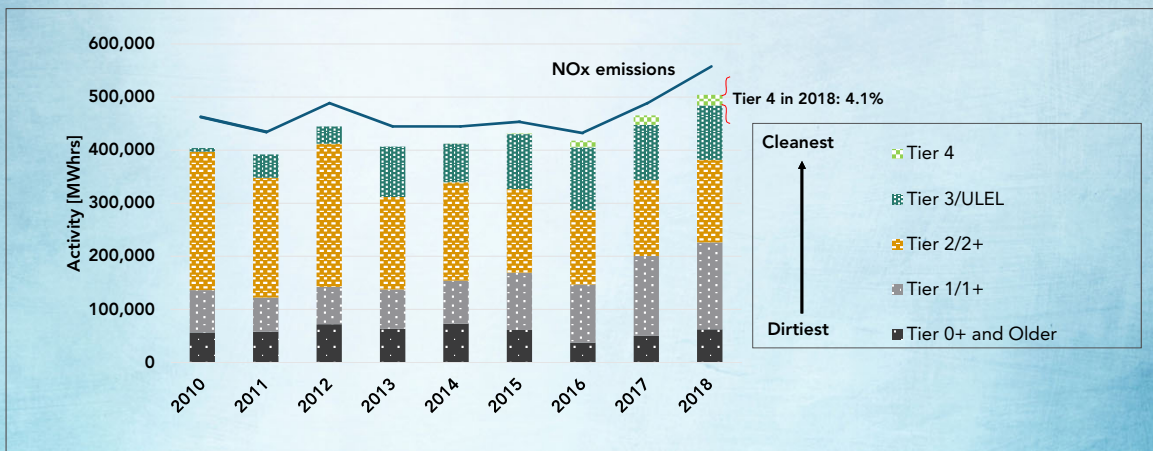




Concepts for In-Use Locomotive Regulation

February 1, 2021

Locomotive Emissions in the South Coast

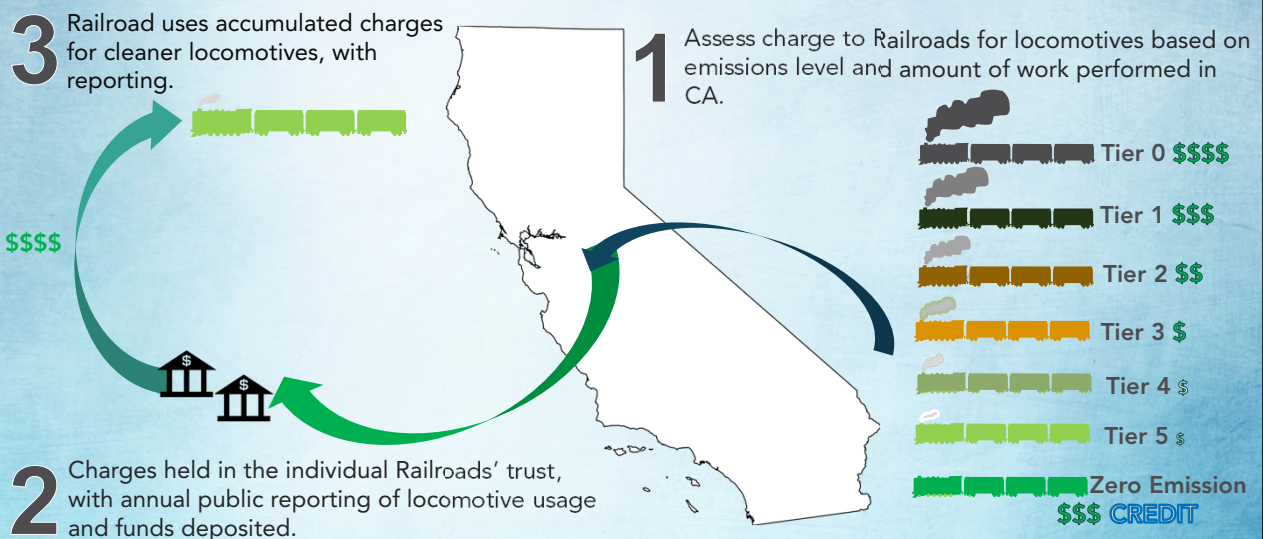


Concepts for In-Use Locomotive Regulation

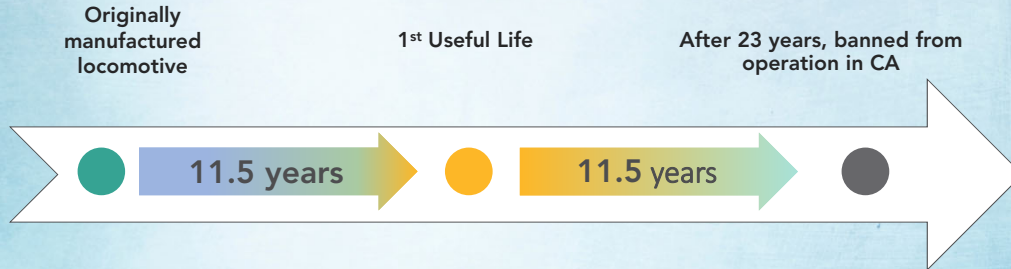
- Reporting and recordkeeping
- Limit on unnecessary idling over 30 minutes
- Emission Reduction Spending Account
- In-Use Locomotive Useful Life Limit



Locomotive Emissions Reduction Spending Account

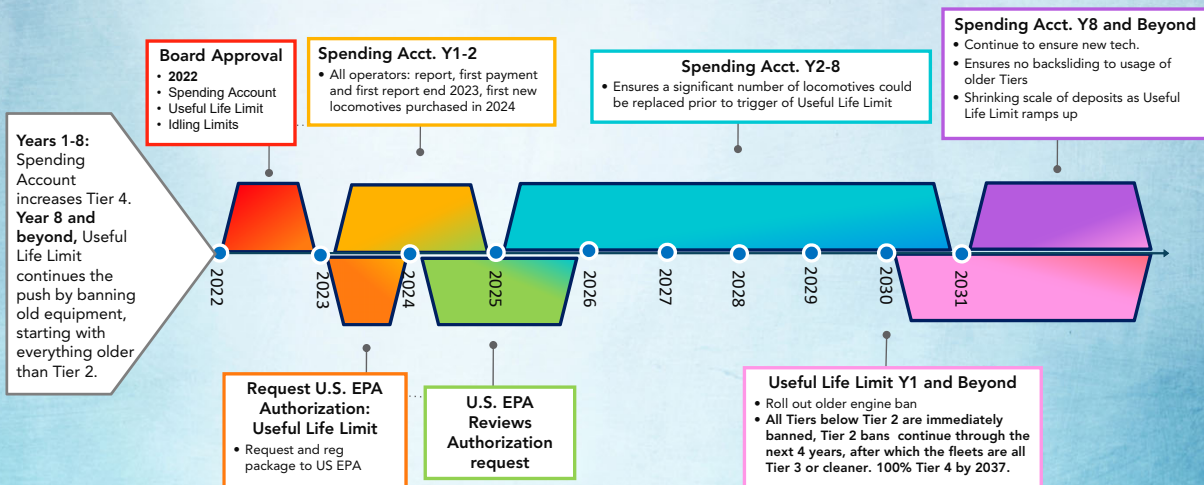


In-Use Locomotive Useful Life Limit



- Locomotives can continue to operate in California if they can demonstrate they have not operated beyond their useful life
- Locomotives can continue to operate in California if they rebuild or remanufacture to a Tier 4 or cleaner

Regulation Implementation Timeline





A Primer on Incentives

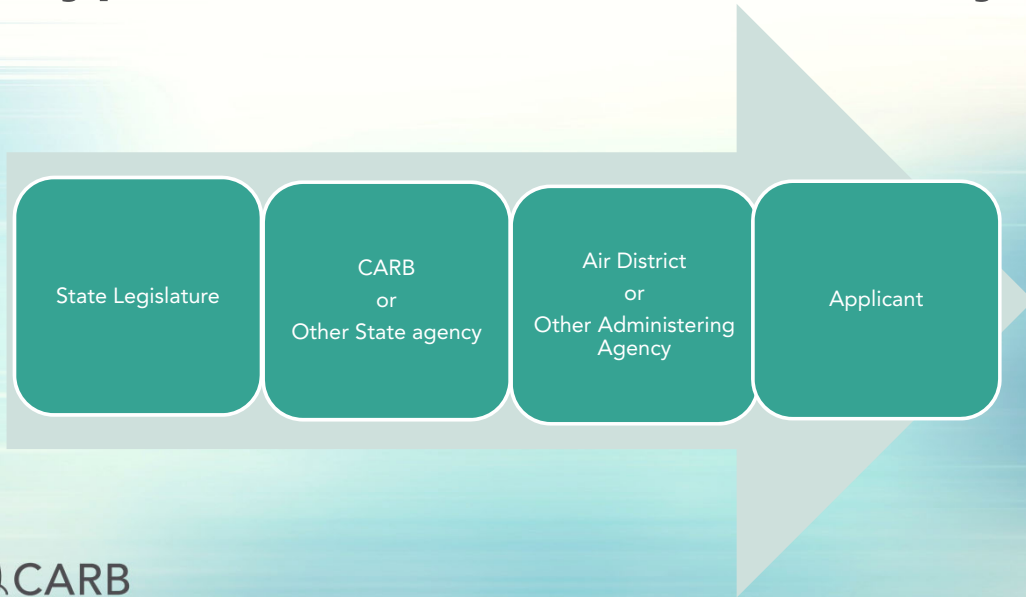
Stockton Community Steering Committee

2/1/2021

Goals for Today's Discussion

- Learn how money flows to various incentive programs
- Learn about the wide variety of available incentives
- Quickly go over how Community Air Protection incentives fit in
- Discuss where existing programs could help meet your needs
- Discuss how AB 617 incentives can "fill in the gaps"

Typical Flow of Incentive Money



Wide Variety of Incentive Programs

- CARB programs:
 - Statewide programs (Examples: HVIP and CVRP to help purchase new zero-emission trucks/buses, and passenger cars)
 - Pilot and demonstration projects (Example: many under Low-Carbon Transportation Investments)
- Incentives from other agencies (Example: California Energy Commission incentives for infrastructure)
- Incentives directed by your air district (Example: Carl Moyer Program)

Community Air Protection Incentives

- Can fund a wide array of projects by default:
 - Carl Moyer and Proposition 1B Programs
 - A variety of different projects in schools
 - Upgrading hexavalent chromium facilities
- Work with the district to create new incentives for stationary sources
- Work with the district to create new incentives for your community
 - Supplement an existing program
 - Use an existing program as a starting point for something new
 - Create entirely new incentives



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Wrap-up and Discussion

We want to hear from you!

Contact CARB: Kyle.Goff@arb.ca.gov

- Set-up meetings
- Request more information
- Submit comments for new opportunities



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