

Update on Efforts to Reduce Emissions and Risks at High Risk Railyards

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UP Commerce



BNSF San Bernardino



California Environmental Protection Agency



Air Resources Board

September 2009 Board Meeting

- Presented general recommendations to further reduce emissions and risks from locomotives and at railyards
- Discussed emerging locomotive technologies that can further reduce emissions
- Highlighted the benefits of existing ARB and U.S. EPA actions

ARB and U.S. EPA Actions

Already Reducing Emissions and Risks

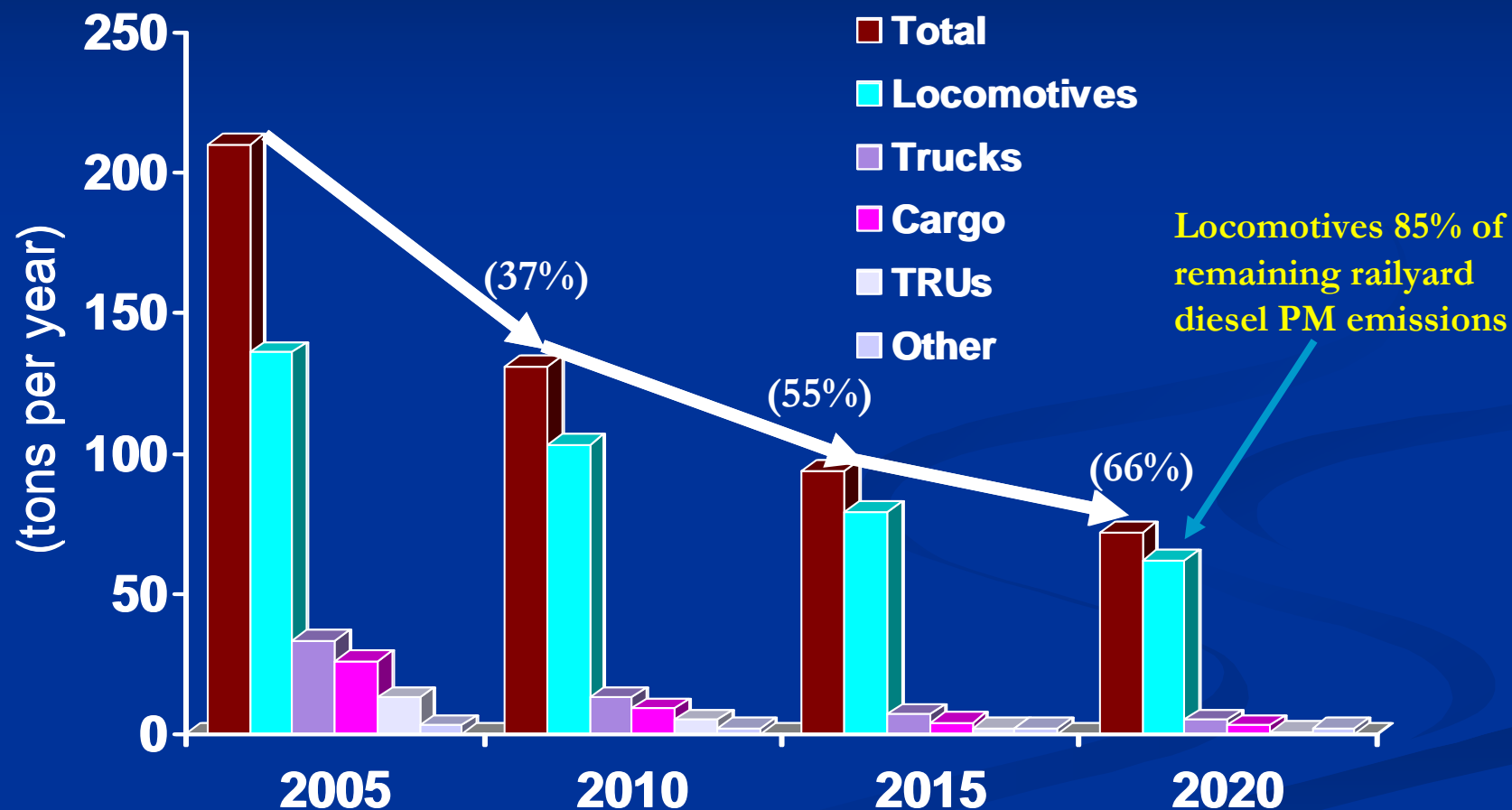
- **ARB Regulations**
 - Drayage trucks
 - Transport refrigeration units
 - Cargo handling equipment
 - Clean fuels for intrastate locomotives

- **ARB/Railroad Agreements**
 - South Coast locomotive fleet average
 - Idle reduction devices on intrastate locomotives
 - Clean fuels for all locomotives

- **U.S. EPA Locomotive Standards**

- **Federal and State Incentive Funding**
 - Carl Moyer Incentive Funds
 - Proposition 1B Bond Funds
 - ARRA-DEIRA Incentive Funds

Significant Diesel PM Emission Reductions Already Occurring at the 18 Major Railyards *



* Based on existing U.S. EPA and ARB regulations and agreements.

September 2009 Board Direction

- Develop approach for railroads to prepare and implement risk reduction plans for high-risk railyards
- Use San Bernardino railyard as a template
- Investigate potential enforcement provision that would trigger ARB regulatory action
- Coordinate with stakeholders
- Report back to Board with recommendations

Actions Taken Since September

- Discussed possible approaches with key stakeholders
- Collected technical information on railyards
 - Diesel PM emissions assessment
 - Potential cancer risks
 - Projected changes in growth
 - Potential applicable control measures
- Solicited input from stakeholders on a possible enforceable provision

Summary of Proposal

- Obtain commitment from railroads to reduce emissions/risks from high risk railyards
- Work with interested stakeholders to establish specific provisions for the railroad commitment
- Implement through exchange of letters between ARB and the railroads after public consultation process

Locomotive Emission Reduction Measures

Measures	Timeframe	Emission Reductions	
		PM	NO _x
Switcher Locomotives <small>(Pre-Tier 0 to Tier 3)</small>	2010-2012	90%	90%
Med HP Locomotives <small>(Pre-Tier 0 to Tier 3)</small>	2012-2014	80%	80%
Interstate Locomotives <small>(Tier 2 to Tier 2+/Tier 3)</small>	2012-2020	50%	N/A

Additional Measures

- Operational measures (e.g. gate relocations)
- Accelerated turnover of cargo handling equipment, drayage trucks, transport refrigeration units, etc.
- Alternative fuel/electrification of equipment
- Stationary collection systems for locomotive maintenance (“Hood Technology”)

Summary of Key Provisions

- Identify high-risk railyards
- Establish railyard-specific targets for reductions over time
- Routinely assess and report emissions, risks, and compliance with targets
- Include public participation and outreach
- Establish enforceable provisions that “keeps ARB’s feet to the fire!”
- Identify specific ARB actions to be taken if commitments not met

Possible ARB Actions if Commitments Not Met

- Adopt the following regulations:
 - Control non-preempted locomotives
 - Impose risk reduction program, with periodic reporting

- Evaluate the following possible regulations:
 - Hood technology for locomotive maintenance
 - Electrification of cargo handling equipment, TRUs, or other equipment

- Pursue greater authority from new federal legislation and regulations

Next Steps

- Discuss specific provisions of the commitment letters with stakeholders
- Release draft commitment letters for public comment
- Revise commitment letters as appropriate
- Present final commitment letters to Board for concurrence
- Railroads release detailed railyard-specific plans for meeting commitments

Proposed Timing

March/April

Prepare draft letters and hold public workshops

April/May

Present letters to the Board

May/June

Exchange signed letters

July

Railroads release details of how commitments to be met

August/September

Hold community meetings

Benefits of the Proposal

- Achieves greater emission reductions than existing measures
- Covers both preempted and non-preempted locomotives
- Quick implementation schedule
- Facilitates dialogue between the railroads and the local communities

Staff Recommendations

- Pursue commitment with railroads to reduce emissions and risk at high risk railyards
- Direct staff to:
 - Initiate detailed discussions of key provisions with interested stakeholders and to conduct public meetings
 - Return to the Board in April/May with final commitment letters