



Request for Public Input

Draft Railyard Commitments to Reduce Diesel Soot or Particulate Matter (PM)

BNSF San Bernardino Railyard

June 9, 2010

California Environmental Protection Agency

 **Air Resources Board**



Board Direction

Develop Railyard Commitments That:

- Further reduce diesel PM emissions and health risks
- Include verifiable and enforceable provisions
- Trigger ARB rulemaking if railroads fail to comply
- Use incentives to accelerate progress
- Ensure transparent process



Understanding of Community Priorities

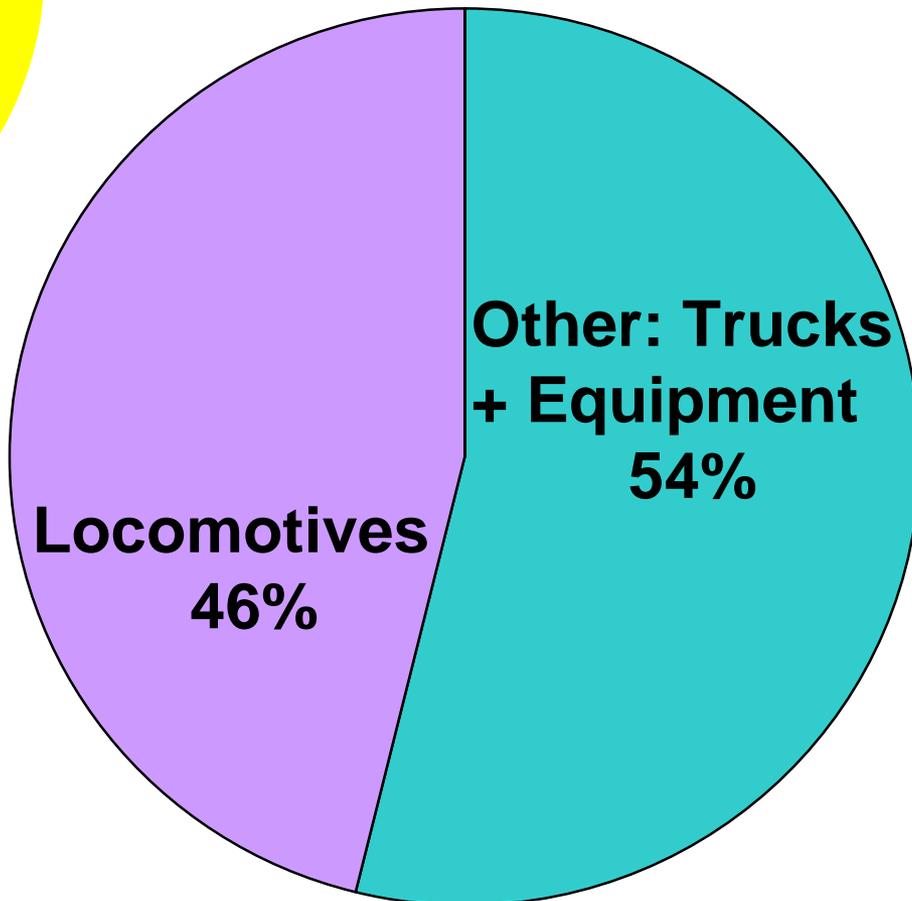
- Reduce railyard health risks
- Change operations to cut exposure
- Use advanced technology
- Compare to regulatory approach
- Site air monitor near railyards
- Hold ARB accountable
- Make improvements outside the yard

Basis for Draft Commitments



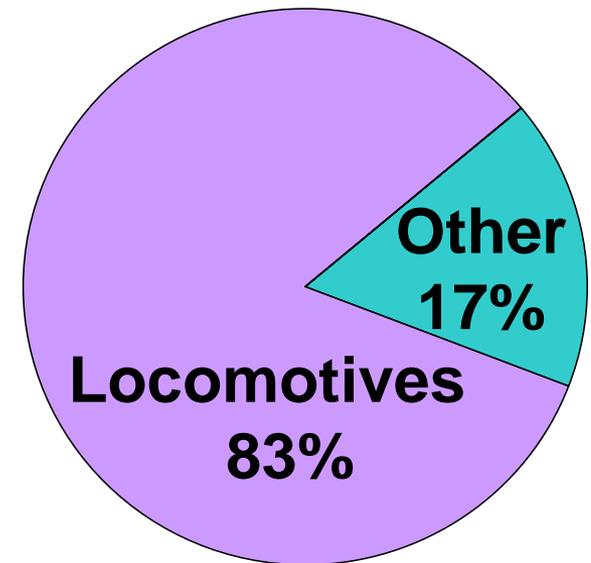
Diesel PM Sources in the Yard

2005



2020

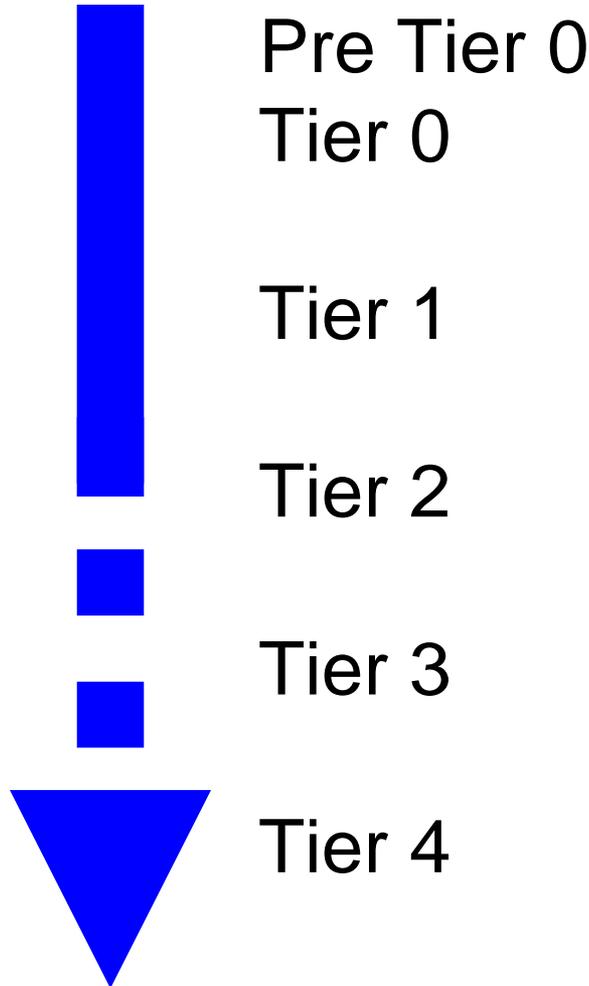
(w/o commitments)



“Tiers” of Cleaner Locomotives

(U.S. EPA Emission Standards)

Emissions



ARB Analysis of Feasible Reductions

(See “*Basis for Commitments*” Document)

With yard-specific data, ARB staff:

1. Assessed technology changes expected under existing regulations/agreements (*including PM benefits not required*)
2. Evaluated accelerated technology upgrades and other strategies to further reduce emissions
3. Calculated the resulting emissions
4. Set the draft performance standard (*% emission reduction from 2005 levels*)

Potential Strategies Included in ARB Calculations (1)

- All trucks have PM controls
- All cargo equipment has PM controls
- All routine yard locomotives upgraded to low-emission models
 - 8-10 (in progress)
- Line haul locomotives upgraded to Tier 3 average emission levels

Potential Strategies Included in ARB Calculations (2)

- Low-emission yard locomotives retrofit with PM filters or replaced with Tier 4 units
- All Tier 4 line hauls by 2020
- Mix of operational changes employed
 - Electric yard equipment
 - Reduced equipment operating hours
 - Relocation of operations within yard

Regulation versus Commitments

Diesel PM Reductions (tons per year) in 2020

- Reductions from regulating non-preempted locomotives (*none at this yard*) = 0

Regulation: Cargo Equipment	Commitments: Locomotives + Cargo Equipment
< 0.3 tons/year	3.6 tons/year

Draft Railyard Commitments





Summary of Draft Commitments

Railroad Obligations

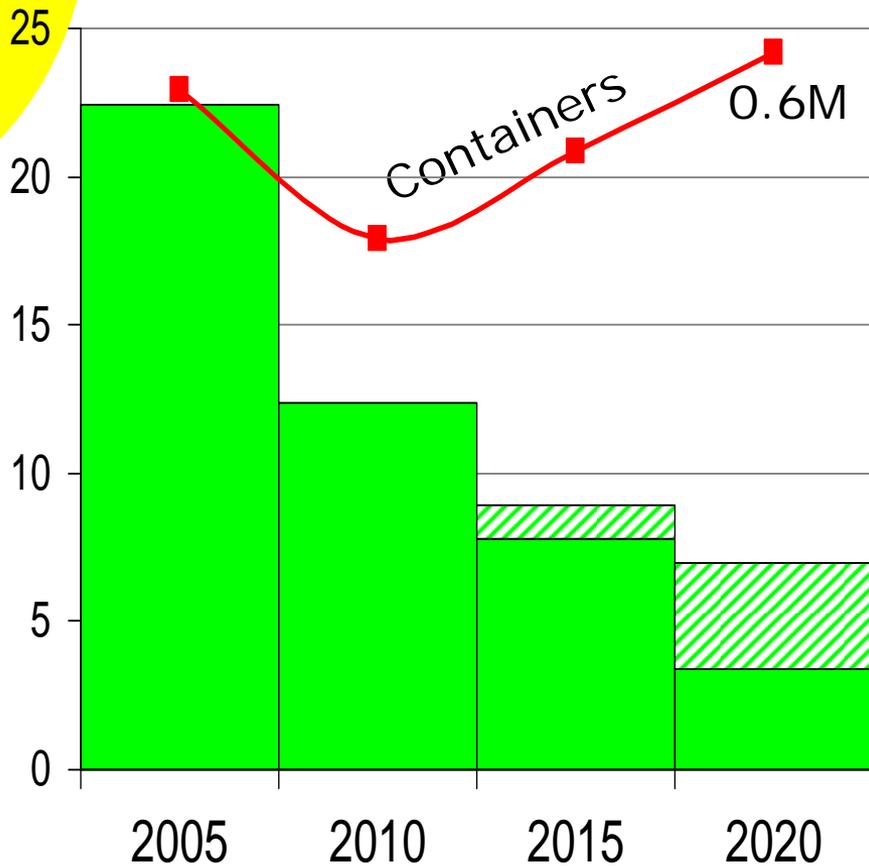
- Comply with enforceable emission reductions through 2011-2020 (despite growth)
- Submit comprehensive documentation at specified intervals
 - Emission inventories, emission reduction plans
- Assess operational changes
- Help test advanced technology
- Hold annual public meetings

Railyard Operational Changes to be Assessed *(by Dec 2012)*

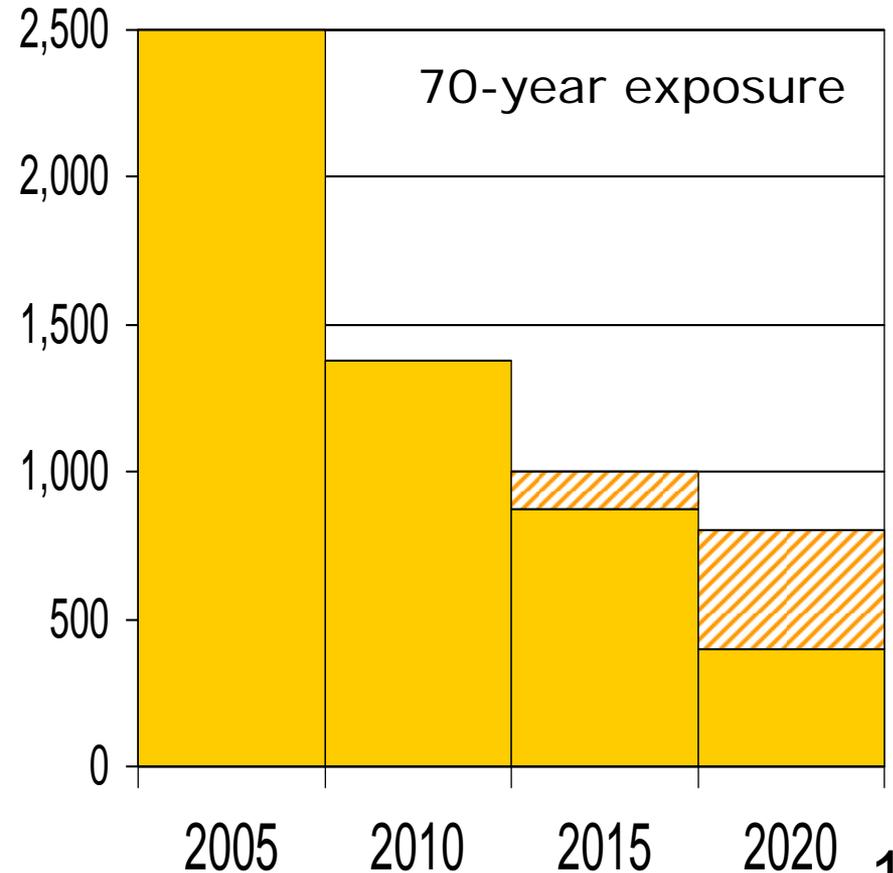
Truck gate	Done
Relocate	
- Yard tractors	✓
- Refrig units	✓
Electric	
- Cranes	✓
- Refrig units	✓
Reduction in hours of operation of refig units	✓

Reducing Diesel PM & Cancer Risk

Maximum Emissions
(tons per year)



Maximum Cancer Risk
(in a million)





Summary of Draft Commitments

ARB Obligations

- Prepare health risk assessments
- Independently verify railroad compliance for each railyard
- Pursue regulations if railroads fail to meet commitments
- Provide documents to the public
- Collaborate with South Coast AQMD to add air quality monitor near the BNSF San Bernardino Railyard

Independent ARB Verification to Assess Compliance

- Inspections inside the railyards
- Unannounced field surveys
- Photo-tracking of locomotives
- Cross-checks of railroad data





Ongoing Public Participation

- Review documents on ARB website:
 - Railyard inventories, risk estimates, emission reduction plans, operational changes, ARB letters to railroads
- Comment on plans and compliance
- Participate in annual meetings
- Raise any concerns to ARB staff/Board



Next Steps

2010	Jun 15:	Staff proposal
	Jun 24:	Board hearing
	Oct 15:	Emission inventory
	Nov 1:	Draft emission reduction plan Updated health risk estimate
	Nov-Dec:	Community meeting/input on plan and risk estimates
2011	Jan 15:	Final emission reduction plan

Summary

The draft commitments would:

- Set maximum emissions, despite growth
- Reduce health risk 85% from 2005-2020
- Lead to use of advanced technology and operational improvements
- Assure enforceability and transparency
- Provide greater benefits than regulation