

Association of American Railroads Comments

Goods Movement and Ports Public Meeting

January 27, 2005



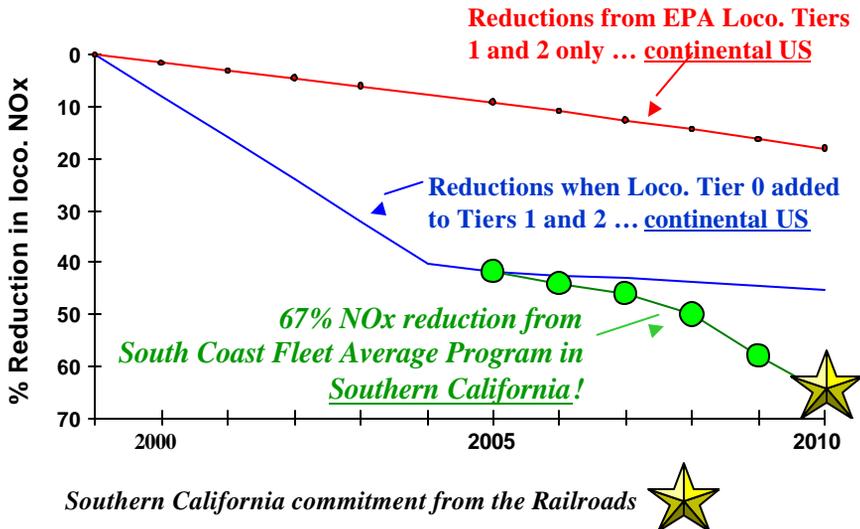
US Railroad Intermodal Flows (car loads) for 2002



Southern California Environmental Improvement Program

- Supported the US EPA's standards for new and re-manufactured locomotives
- Developed Enforceable MOU with ARB and UP EPA to achieve accelerated reductions in Southern California
- Created an end-user research & development program for new technologies

South Coast Fleet Average



How the ARB Described the MOU

“This compliance requirement would be met by the use of only the cleanest engines within the SCAB non-attainment area by an aggressive phase-in of these engines over five years. In essence, this fleet average requirement represents the most aggressive scrapage and replacement program of any transportation source in the SCAB (in effect, 100 percent scrapage/replacement with the latest, low-emitting locomotives over 5 years from 2005-2010)”

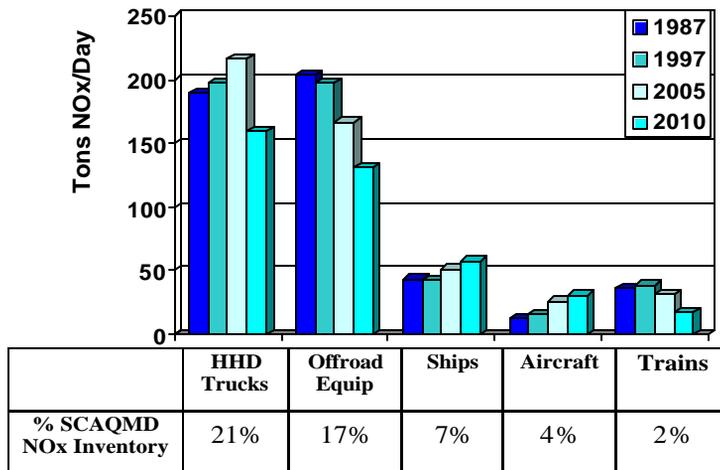
Other Railroad Emission Reduction Program Components

- Funding (by end users) \$5 million for particulate research at Southwest Research Institute
- Working with the Air Resources Board to accelerate Particulate reductions in and around rail yards
- Funding & demonstrating new locomotive technologies:
 - Spark Ignited LNG technologies
 - Idle reduction devices
 - Switch engines that use truck engine technologies
 - Hybrid locomotives .

Inherent Efficiencies of Rail

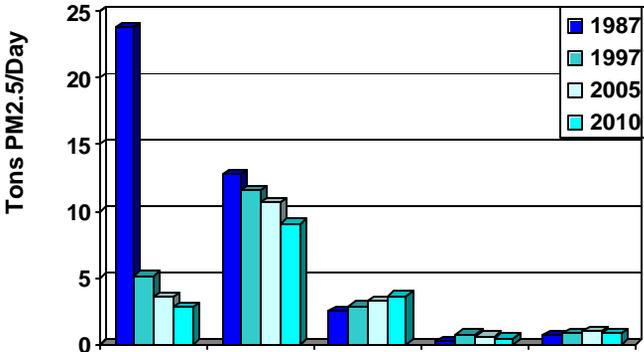
	 vs 
Capacity	1 double stack train equals up to 280 trucks
Fuel Efficiency	Trains are <u>2-4 times more fuel efficient</u> than trucks on a ton-mile basis
NO_x Emissions	Trains are <u>2-3 times cleaner</u> than trucks on a ton-mile basis

NO_x Inventories



Data Sources: SCAQMD AQMPs & Other Materials

PM 2.5 Inventories



	HDD Trucks	Offroad Equip	Ships	Aircraft	Trains
% SCAQMD PM2.5 Inventory	2.4%	7.9%	3.2%	0.4%	0.7%

Data Sources: SCAQMD AQMPs

Figure 1 – NOx Emissions per Ton Mile of Freight South Coast Air Basin

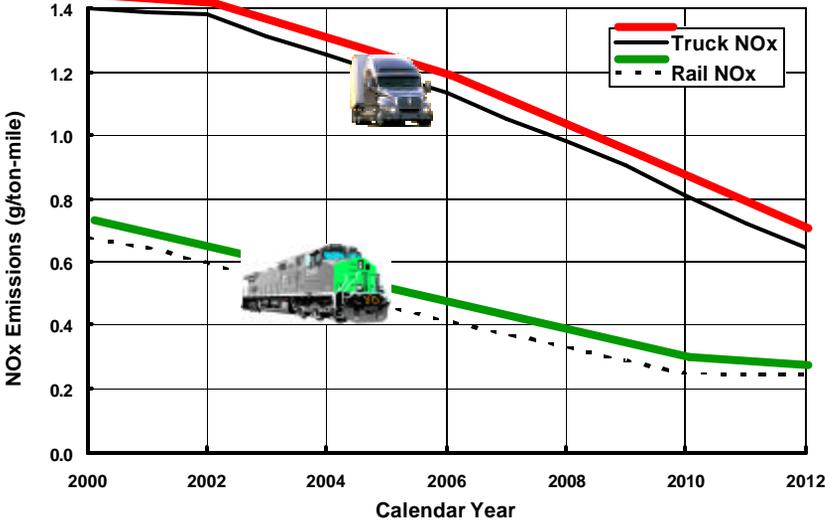
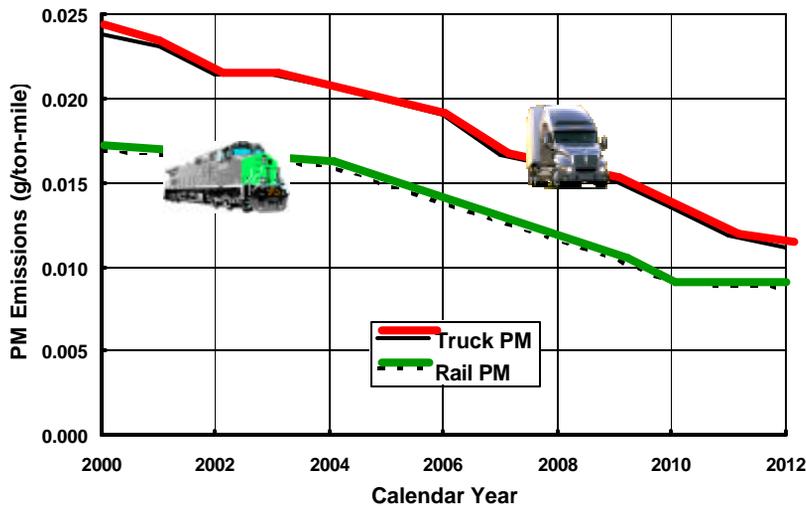


Figure 2 -- PM Emissions per Ton Mile of Freight
South Coast Air Basin



Evaluate Possibilities from a Systems Perspective

- This Task Force must balance the needs of shippers, transporters, commuters, adjacent communities, regulators, and many other stakeholders.
- Altering one part of the system can cause disruption to the entire goods movement system of ship, rail and truck operations throughout California,
 - International port calls, labor opportunities, freeway traffic patterns, and even commuter rail operations
- The railroads' believe that unintended economic and environmental consequences of various public policy choices must be squarely addressed by this effort
- This issue needs a statewide focus and management team, as the Governor has said.

Comparison of Mobile Source Requirements

	Trucks	Off-Road Equipment	Ships	Aircraft	Urban Buses	Locomotives
2010 NOx Inventory SCAQMD	21%	17%	7%	4%	2%	2%
Standards for New Units	X	X	X	X	X	X
Retrofit Existing Units					X	X
Rebuild to New Standards						X
In-Use Testing of Emissions						X
Fleet Average for SCAQMD						X