How are we doing?

On track or ahead of schedule to meet clean air goals

Diesel particulate matter emissions reduced 75%--2014 goal exceeded
Strategies working

Clean Air Action Plan has greatly reduced port-related air pollution

Port programs augmented by state regulation
Port Activity: 2011 vs. 2005

Container cargo volume down 10%
Total ship calls declined 14%
Container ship calls down 5%
Cargo containers (TEUs) per ship down 4%
Overall Emissions Reduced from 2005

- DPM: ↓75%
- NOx: ↓50%
- SOx: ↓80%
- GHG: ↓23%
- TEUs*: ↓10%

*Twenty-foot equivalent units
Reduced Truck Emissions

3 years old in 2011 vs. 11 years old in 2005

62% reduction in idling hours

38% decrease in vehicle miles traveled
Reduced Rail Emissions

Cleaner Locomotives

20% of cargo shipped by on-dock rail

In 2005, 16% of cargo shipments moved by on-dock rail
Reduced Terminal Equipment Emissions

State regulation

Newer equipment or retrofits

More equipment with cleaner on-road engines

DPM ↓ 55%

SO₂ ↓ 90%

NOₓ ↓ 43%

GHG ↓ 3%
Reduced Harbor Craft Emissions

State regulation
Newer, cleaner engines
Better data collection

- DPM: 22% decrease
- SO\(_x\): 88% decrease
- NO\(_x\): 23% decrease
- GHG: 4% decrease
Clean Air Goals for 2014

- Diesel Particulate Matter (DPM): GOAL ↓75%
- Nitrogen Oxides (NOx): GOAL ↓50%
- Sulfur Oxides (SOx): GOAL ↓80%
Looking Ahead

Green Ship Incentive Program

Technology Advancement Program

Green Leases

State Regulations

North American Emission Control Area
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