San Pedro Bay Ports Clean Air Action Plan

presented by

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Action Plan Development

- Clean Port Summit – March 2006
  - Outcome: work together towards solutions
- SPBP Clean Air Action Plan Working Group formed
  - Both Ports
  - South Coast Air Quality Management District (AQMD)
  - California Air Resources Board (CARB)

Action Plan Drivers

- Minimize health risk from port operations
- Accelerate existing emissions reduction efforts
- Set consistent project-specific & source-specific standards
- Enable port development

Action Plan Foundations

- Work cooperatively to minimize adverse environmental impacts of operations
- Build upon ports & tenants existing programs
- Reduce “Fair Share” of port-related operational emissions
- Ensure that all new projects meet health risk criteria
- Action Plan is a “Living Document” which will be updated & improved annually

Sources and Challenges

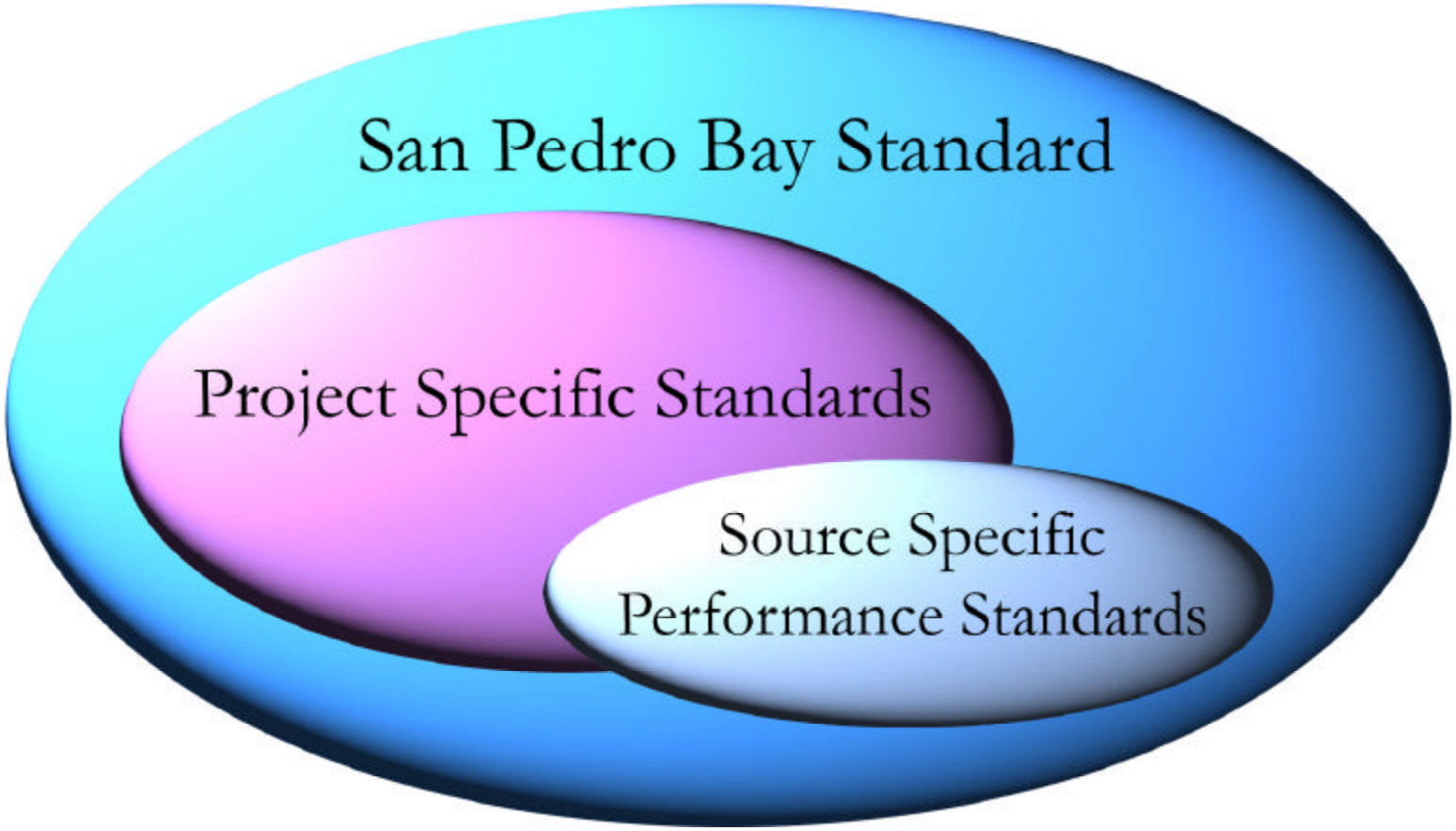
Target Pollutants: DPM, NOx, SOx

- DPM - Diesel Particulate Matter: Microscopic particles that includes soot from diesel exhaust; toxic air contaminant
- NOx - Nitrogen Oxides: An ozone precursor that significantly contributes to smog
- SOx - Sulfur Oxides: A precursor to particulates
- The South Coast Air Basin exceeds federal air quality standards for both ozone and particulate matter

Control Measures

Measure #	Control Measure/Initiative
SPBP-HDV1	Performance Standards for On-Road HDV
SPBP-HDV2	Alt Fuel Infrastructure for On-Road HDV
SPBP-OGV1	OGV Vessel Speed Reduction
SPBP-OGV2	OGV Reduction of At-Berth Emissions
SPBP-OGV3	OGV Auxiliary Eng Fuel Improvement Standards
SPBP-OGV4	OGV Main Eng Fuel Improvement Standards
SPBP-OGV5	OGV Main & Aux Eng Emission Improvement
SPBP-CHE1	Performance Standard for CHE
SPBP-HC1	Performance Standards for HC
SPBP-RL1	Rail Switch Engine Modernization
SPBP-RL2	Operational Controls for Line-Haul RR
SPBP-RL3	Clean Rail Yard Standards
	Technology Advancement Program
	Infrastructure & Operation Efficiency Improvement
	Construction Standards

Three Levels of Standards



Standards – Three Levels

- San Pedro Bay Standards
  - Reduce public health risk from port-related toxics
  - Prevent port-related violations of National Ambient Air Quality Standards (NAAQS)
  - Reduce port “Fair Share” pollutant emissions
- Project Specific Standards
  - Meet 10 in 1,000,000 excess cancer threshold
  - Implement maximum feasible controls for projects exceeding CEQA thresholds for

Ports' Five-Year Commitments

- Heavy-Duty Vehicles (Trucks)
  - Replacement/Retrofit of frequent & semi-frequent callers
  - LNG Fueling Infrastructure
  - Two Ports & AQMD $206,000,000
- Ocean-Going Vessels
  - 100% compliance w/VSR to 20 nautical miles; extend to 40 nautical miles
  - Port of Los Angeles – 15 berths will be AMP'd
  - Port of Long Beach – 7 to 13 berths will be shore-powered
  - =0.2% sulfur fuels for main & auxiliary engines
  - NOx and PM controls on new and existing vessels
  - Two Ports $144,000,000

Ports' Five-Year Commitments

- Railroad Locomotives
  - Standards for switcher and line-haul locomotives
  - Standards for new or modified rail yards
  - Two Ports $10,000,000
- Cargo Handling Equipment
  - Standards for equipment
- Harbor Craft
  - Standards for harbor craft
- Infrastructure and Efficiency Improvements
  - Two Ports $5,000,000
- Technology Advancement & Source Testing
  - Two Ports $15,000,000

Evaluation of Technologies/Concepts

- Technology Advancement Program
  - Combine expertise & resources
  - Source category emission reductions
  - Evaluate “Green Container Transport” concepts
  - Emission inventory improvements
  - Ports’ funding commitment: $15 million over 5 years

Implementation Strategies

- Lease requirements
- Tariff changes
- CEQA mitigations
- Incentives
- Voluntary measures
- Capital lease backs
- Credit trading
- Government-backed loan guarantees

Estimated Emission Reductions

Trucks	782	tons/yr DPM
	6,417	tons/yr NOx
	3	tons/yr SOx
Ships	393	tons/yr DPM
	5,355	tons/yr NOx
	2,430	tons/yr SOx
Cargo Handling Equipment	11	tons/yr DPM
	376	tons/yr NOx
PHL Switchers	3	tons/yr DPM
	163	tons/yr NOx
Total Reductions -	1,186	tons/yr DPM (>3,400 tons)
5th Year	12,148	tons/yr NOx (>37,500 tons)
	2,433	tons/yr SOx (>7,900 tons)

Funding

Proposed Minimum Commitments Over Next Five Years:

- Port of Los Angeles $177,400,000
- Port of Long Beach $181,000,000
- SCAQMD Initial Commitment $36,000,000

Other Commitments Needed:

- Bond & Other Funding?? “Our Fair Share”
- Tenants/Shipping Industry??

Tracking, Monitoring, and Reporting

- Expanding Port-Area Air Monitoring Network
  - Two Ports and AQMD
  - Cooperation on Methods/Evaluation
- Emissions Inventory
  - Regular Updates
- Monitor Progress on Clean Air Action Plan
  - Track implementation of each measure

Next Steps

- June 28th – Release Draft begin public review
- Brief tenants and customers – June 29/30
- Public Workshops:
  - July 10th – 6 pm – Banning's Landing
  - July 12th – 7pm – Long Beach Council Chambers
  - July 19th – 7pm – Cesar Chavez Park
  - July 25th – 6pm – Peck Park
- Finish Public Comment Period – July 28th
- Plan Revisions as Appropriate – August
- Board Approval – September
- Implement Action Plan!

Public Comments

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