

A CLEANER PORT.  
A BRIGHTER  
FUTURE.



# Partnering with Pacific Rim Ports on Clean Air Strategies

Environmental Management Division  
Port of Los Angeles

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CMANC Alternative Maritime Power Conference

**25 April 2006**



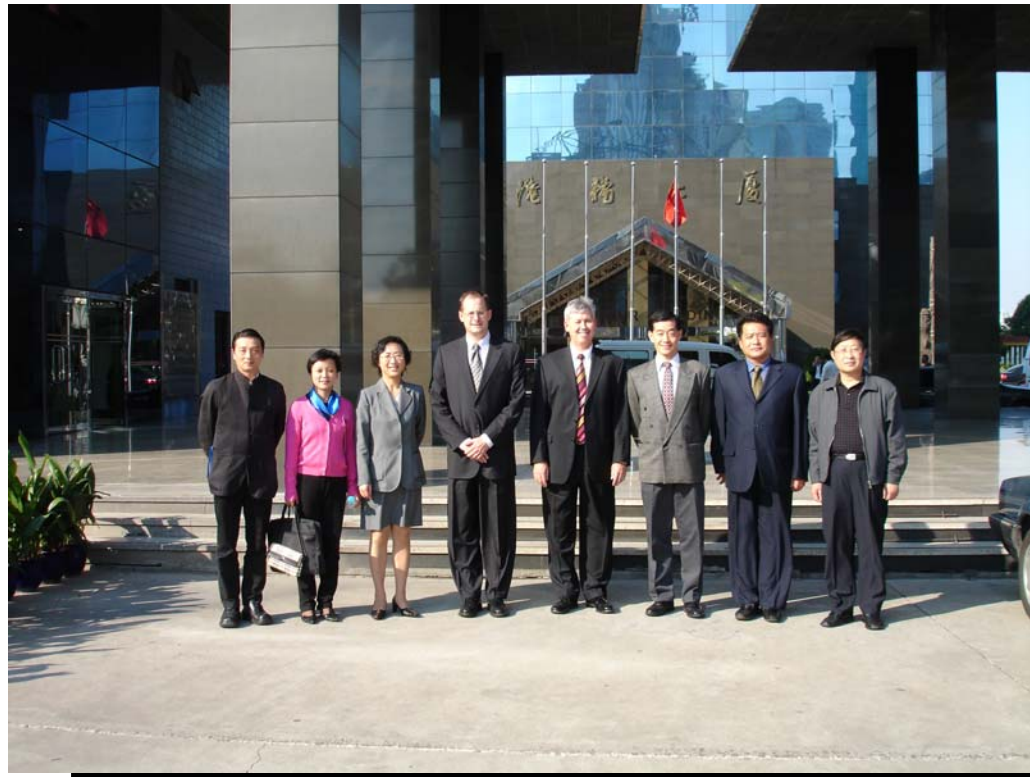
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# Partnering w/Pacific Rim Ports

## Overview

- The Realization – You Can't Do It Alone
- Working Towards Solutions – Collaboration Initiatives
- Into The Breach – Next Steps





# The Realization

## You Can't Do It Alone

- City of Los Angeles' NNI Process
  - ❑ One Year Intensive Unconstrained Evaluation
    - ✓ Multi-Participant (Everyone & the Kitchen Sink)
    - ✓ 1,000s of Hours
    - ✓ Based on Unconstrained Cargo Growth
    - ✓ 68 Measures Covering 5 Source Categories
    - ✓ ~16 Billion Dollars Over 20 Years
    - ✓ ~10 Billion Dollars for Ocean-Going Vessels Alone
  
- Realization
  - ❑ Conclusion: It Takes a Village with a LOT of Money
  - ❑ OGVs Represent ~36% NO<sub>x</sub>, ~56% PM (2001 EI)
  - ❑ The Port of Los Angeles Can Not Do It Alone



# Working Toward Solutions

## Local Action

- Proposing a Joint San Pedro Bay Ports Clean Air Action Plan
  - ❑ **Elimination of Public Health Risk Is Top Priority**
    - ✓ Moving Away From Mass Emissions Focus
  - ❑ **New Clean Air Policy**
    - ✓ Elimination of Public Health Risk
    - ✓ Reduction of DPM and Criteria Pollutants – Targeting Reduction In Health Risk
    - ✓ Partnering w/SCAQMD, ARB, EPA
    - ✓ Continue Coordination w/Port of Long Beach
  - ❑ **New Goals to Meet New Policy**
    - ✓ Eliminate Health Risk in 5-Years or Have Programs In Place
    - ✓ Facilitate Growth While Reducing Emissions
    - ✓ Monitor, Document, & Report Performance
    - ✓ Source Specific Goals



# Working Toward Solutions

## Local Action

- Proposing a Joint San Pedro Bay Ports Clean Air Action Plan (cont.)
  - ❑ **Control Measures**
    - ✓ Shifting Primary Implementation Strategy to Lease Requirements
    - ✓ Focusing Port Incentive Funding To Trucks, OGVs (Targeted), Research & Development/Demonstrations
      - Limited Funding
      - Participation Rate Requirements
      - Gift of Public Funds
    - ✓ New Regulations (ARB – CHE, OGV, HDV?) Since NNI
    - ✓ Partnering w/SCAQMD, ARB, EPA for Funding & Expertise
    - ✓ Revamping Control Measures to Reflect Above Changes
      - Lease Requirements Changes Control Measure Implementation Timelines & Reductions
      - Need Resolution of 24 nm Boundary vs Current Over Water Boundary



# Working Toward Solutions

## Global Collaboration Initiatives

- Port's Collaboration Strategy
  - Ports
  - Terminal Operators
  - Fuel Providers
  - Engine and Vessel Manufacturers
- Initial Focus On Pacific Rim Ports
  - Find Out What Other Trading Partners Are Doing
  - Determine Willingness to Collaborate on Air/Environmental Issues
  - Learn from Each Other's Programs
  - Work Jointly to Develop/Evaluate Potential Port Policies & Measures (Initially Focusing on OGVs)
  - Avoid Boutique Strategies Between Ports
  - Better Understand Fuel Availability & Limitations
  - Formation of a Pacific Ports Air Quality Collaborative



# Working Toward Solutions

## Collaboration Initiatives – Pacific Rim Ports

### ➤ Port Initiatives

#### ❑ Shanghai Initiatives

- ✓ Received MARAD Grant w/Technical Support from EPA
- ✓ Signed Letter of Intent
- ✓ First Successful Delegation Completed November 2005
- ✓ Addn Meetings in February & April 2006
- ✓ Staff Exchanges
- ✓ Mayor's Initiative

#### ❑ Teaming with Marketing Department

- ✓ Leverage Synergies Between Env. and Marketing/International Staff
- ✓ Utilize Established Agents & Contacts
- ✓ Poll Other Pacific Ports to Determine Interest





# Working Toward Solutions

## Collaboration Initiatives – Pacific Rim Ports

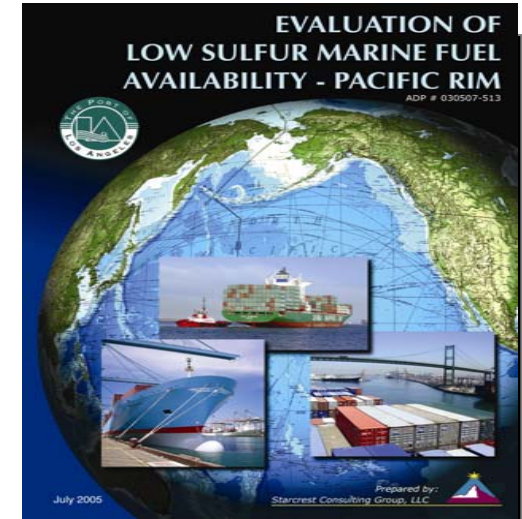
- Port Initiatives (cont'd)
  - ❑ Other Pacific Rim Ports
    - ✓ Tokyo
    - ✓ Nagoya
    - ✓ Busan
    - ✓ Hong Kong
  - ❑ Pacific Ports Air Quality Collaborative
    - ✓ Port Centric Focus
    - ✓ EPA Region IX Grant Through West Coast Diesel Collaborative
    - ✓ Encourage Communications & Collaboration on Air Quality Issues Between Ports Around the Pacific Rim
    - ✓ Provide the Opportunity for Port Staff Exchanges
    - ✓ Where Possible, Provide a Common Voice on Recommendations from the Group on Air Quality Issues, Suggested Control Strategies, & Technical Methods



# Working Toward Solutions

## Collaboration Initiatives – Fuels/Manufacturers

- Focus on Fuel Providers
  - ❑ Pacific Fuels Availability & Distribution
  - ❑ Barriers to Market
- Focus on Engine Manufacturers
  - ❑ Meetings with MAN & Wartsila
  - ❑ “Green Engines”
  - ❑ Main & Auxiliary Engine Operations
  - ❑ Fuels & Lube Oils
  - ❑ Current & Future Engine Technologies
  - ❑ Verification
  - ❑ Collaboration Opportunities





# Working Toward Solutions

## Collaboration Initiatives – Fuels/Manufacturers (cont.)

- Focus on Vessel Manufacturers
  - ❑ Meeting with Hyundai Heavy Industries
  - ❑ Accommodations for AMP
  - ❑ Accommodations for Main Engine after-treatment devices
  - ❑ Accommodations for Additional Tankage flexibility
  - ❑ Current & Future Engine Technologies
- IAPH Resolution
  - ❑ MARPOL Annex VI not good enough
    - ✓ Treaty Should be Modified
  - ❑ International Standard for Shore-side Power to Ships
    - ✓ ISO/IMO Meetings?





# Perspectives

## Issues for Adoption of Clean Air Measures

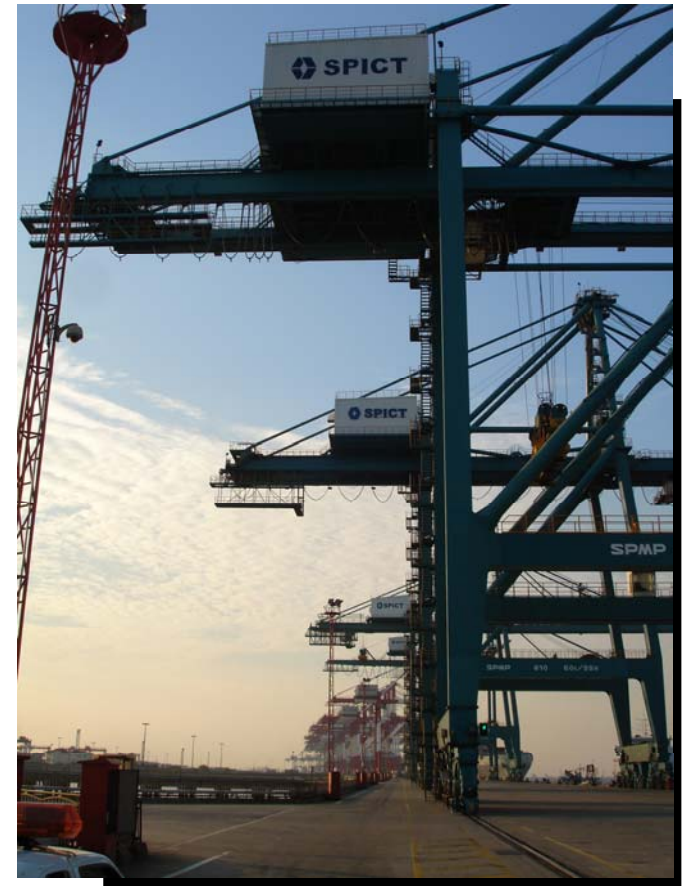
- Regulatory Authority Over OGVs
  - ❑ What is the limit of authority over international flags?
    - ✓ Wharf face or out to sea?
  - ❑ Within a country, who regulates OGV?
- Costs
  - ❑ What can be borne by local jurisdiction?
  - ❑ What can be passed to terminal operator?
- Competitiveness
  - ❑ Will it cost me business?
- Standards and Local Conditions
  - ❑ Does the standard recognize international variability?
- Political Realities
  - ❑ Local vs National Port Authorities
  - ❑ Local Issue Drivers



# Into the Breach

## Next Steps

- Complete POLA Clean Air Plan
- Form Pacific Ports Air Quality Collaborative
- Planning for First Meeting of Pacific Ports Air Quality Meeting
- Meetings w/Additional Ports
- Meetings w/Additional Manufacturers
- Meetings w/International Standards Bodies





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