

West Coast Region Conference on “Marine Port Air Quality Impacts”

April 21 & 22, 2004



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- **Vessel owners, operators and agents**
- **Promote maritime trade within safety, security and environmental stewardship framework**

Air Emissions

Industry Recognizes:

- **Air Emissions Challenges are Real**
- **The Problem is Complex**
- **Informed, Cost Beneficial Solutions will Require Participation of a Broad set of Stakeholders**

Solutions to Environmental Challenges

Industry Promotes:

- **Risk Based, Cost Effective, Level Playing Field Solutions**
- **Regulatory and Non-Regulatory approaches where appropriate**

Environmental Regulations & Shipping

- **Shipping is International**
- **International Construction, Equipment & Operation Standards Apply**
- **International Standards Enforcement done by Flag and Port State Control**



Vessel Traffic

What is the Target Audience?



Puget Sound Example:

- ✓ 2754 Vessel Calls in 2003
- ✓ 900 Different Vessels
- ✓ 450 Different Vessel Owners/Operators
- ✓ Majority of Vessels are not “frequent” Callers

Los Angeles Example:

- ✓ Primarily a Container “liner” Port
- ✓ Only 18% of ships called 6 or More Times Per Year
- ✓ Less than 3% Called 12 or More Times Per Year

Significant Implications in Determining Cost
Effective Mitigation Strategies

Environmental Regulations & Shipping

➤ **Where standards are needed, every effort should be made to make them:**

- ✓ **International first (MARPOL ANNEX VI)**
- ✓ **Federal second**
- ✓ **Regional third**

Note: Federal and Regional approaches can be compatible with an International Regime

Environmental Regulations & Shipping - Considerations

- **Effective?**
- **Jurisdiction?**
- **Competitive Impacts?**
- **Unintended Adverse Consequences?**

Statements of Concern - Examples:

➤ “Cargo Doubling Equals Vessel Traffic Doubling”

✓ **Fact: Cargo has Gone up and Ship Calls Down**

Ship Calls Down 10% in Puget Sound since 2000

**LA/LB Doubled Container Throughput in Past
without an Increase in Ship Calls**

✓ **Fact: Ships are Larger and More Efficient**

Emissions per Ton or Container Reduced

Many Large Container Vessels on Order

New Vessels have Engines Meeting Annex VI

Specifications (retroactive to January 2000)

Statements of Concern - Examples:

- **“Make Ships Stop Idling their Engine in Port”**
 - ✓ **Fact: Most Vessels have Direct Drive Propulsion & Must Shut Down at the Dock**
 - ✓ **Vessel Auxiliary Plants Run at the Dock - Some Safety & Security Concerns if they are Shut Down**
- **“Modify the Engines”**
 - ✓ **New Slow Speed Diesels are Efficient Engines - Modification Ideas Must be Carefully Tested**
 - ✓ **Modifications can Involve Trade Off Consequences - Lower One Pollutant might Increase Another**
 - ✓ **Modification Costs & Benefits Must be Fully Considered**

Statements of Concern - Examples:

- **“Just Change Bunker Fuel Quality & Standards”**
 - ✓ **Vessels From all Over the World**
 - ✓ **Bunker Supply Chain is International & Complex**
 - ✓ **Changes in Bunker Supply will be Equally Complex**
 - ✓ **Bunkers are Approximately 40% of Variable Voyage Costs**
 - ✓ **Sensitive Market: 7.5% Tax in California Resulted in Nearly 70% Market loss in 6 Months**

Statements of Concern - Examples:

- **“Just Make Vessels Plug In When They Come in”**
 - ✓ **Vessel and Facility Modifications are Significant**
 - ✓ **Most Vessels Make Few Port Calls per year to any Individual Port/Terminal**
 - ✓ **Cost/Benefit Ratio for Most Vessels in Doubt Compared to Other Options**
 - ✓ **Safety and Security Concerns Must be Considered**
 - ✓ **Some Vessels Must Run their Own Auxiliary Plants**

Good News?

- **Efforts to Improve Emissions Inventories and Understanding of Associated Impacts**
- **Landside congestion relief from water transport alternatives?**
- **Industry Efforts:**
 - ✓ **Clean Cargo Group - Best Practices**
 - ✓ **Port Authority Initiatives**
 - ✓ **Research and Measurement Participation**

Good News?

➤ **Increasing Understanding of Vessel Emission Mitigation Options**

- ✓ **Retrofit Injectors**
- ✓ **Fuel Emulsification & Homogenization**
- ✓ **Air Fumigation**
- ✓ **Fuel Quality Changes/Availability**
- ✓ **Vessel Operational Controls - Engine Loading, Vessel Speed etc**
- ✓ **Cost/Benefit and Consequences Being Discussed**

➤ **Increased dialogue amongst stakeholders**

Vessel Air Emissions

Public Policy Questions

- **Will Data Gaps be Addressed Appropriately before Public Policy is Developed?**
- **Will Sufficient Understanding of Mitigation Options be Developed and Understood before Public Policy is Developed?**
- **How will International Aspect of Shipping be Addressed?**

Puget Sound Steamship Operators

A large cargo ship is shown from a low angle, its dark silhouette contrasting against a vibrant, warm sky of orange and red. The ship's complex structure, including masts and rigging, is visible against the bright background. The water in the foreground is dark and textured with small waves. The overall scene is serene and evocative of maritime trade.

Promote
Responsible Trade and
Sound Environmental
Stewardship