

Port of Virginia Emissions Reduction Program Overview



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The Port of Virginia

- **Virginia Port Authority (VPA) and Virginia International Terminals (VIT) Develop, Maintain and Operate 3 Marine Terminals in Hampton Roads and an Inland Port in Front Royal**
- **The VPA Marine Terminals Comprise \approx 1,000 Acres**
- **The Port Handled 2.13 Million TEUs in 2007**
- **3rd largest Port on the East Coast, #7 in Nation**
- **A 4th Marine Terminal at Craney Island Expected to Open in 2017**
- **Total Economic Activity in Virginia Produced by the Port = \$41B**
- **\$13.5B in Employee Compensation to 343,000 Employees**



Emissions Reduction Programs

- **Diesel Engine Replacement (1999 To Present)**
 - ⊕ **Cargo Handling Equipment Meets Or Exceed EPA Emissions Requirements**
 - ⊕ **Cleaner Burning “On-road” Engines Specified in Diesel Equipment Where Feasible**
 - ⊕ **Reduction In Engine Sizes In Fleet Vehicles**
 - ⊕ **33% Decrease In Cargo Handling Emissions Despite a 55% Increase In Cargo Traffic**

**2006 Governors Award
for Environmental Excellence**



Emissions Reduction Programs

- **2005 - Present - Universal Chassis Pool 100%**
- **Participation - Shipping Lines Serving the Port**
 - ⊕ **15,000 Chassis Stored On-Site - 30% Less Than Original Fleet**
 - ⊕ **≈50 Acres of Land Recaptured for Container Storage**
 - ⊕ **Average Turn Times Decreased by 10%**

≈ 1.2 M Gallons of Fuel Saved Annually

≈ 1500 Tons/YR of Greenhouse Gases Eliminated



Emissions Reduction Programs

- **2007- Early Conversion to Ultra-Low Sulfur Diesel Fuel Voluntary Use of ULSD in All Diesel Cargo Handling Equipment**
 - ⊕ **3 Years Ahead of EPA Requirements**
 - ⊕ **\$250,000 Additional Fuel Cost**
 - ⊕ **Cleaner Fuel = Lower Maintenance Cost**
 - ⊕ **More Efficient Operation Of Specialized Equipment**

36% Reduction in PM Emissions Annually

SOx Emissions Eliminated



Emissions Reduction Programs

➤ “SmartWay” Port Retrofit Program

- ⊕ **Partners = EPA and VPA, with Local Banks, Truck Dealers, and Short-Distance Freight Carriers**
- ⊕ **Lower Interest loans available for purchase of diesel retrofits or new low emission trucks**
- ⊕ **Truckers linked to SmartWay shippers (e.g. Lowes, Michelin, Volvo, etc.)**
- ⊕ **1st Voluntary Program at a U.S. Port**
- ⊕ **90% of container trucking fleet eligible to participate**

Emissions Reduction of 20-50% Expected



Emissions Reduction Programs 2008 Initiatives

- **Proposed Lease/Purchase**
 - ⊕ **One 2,000 HP Hybrid Yard Switcher (Green Goat)**
 - ⊕ **Two 2,000 HP Eco-Motive GenSet Yard Switcher**
- **20-45% Reduction in Fuel Usage**
- **80% Reduction in NOx Emissions**





Emission Projections per 1,000 TEU

- 2005 - 2009: 15% Increase - Cargo Volume
14% Decrease - Emissions
- 2009 - 2012: 16% Increase - Cargo Volume
12% Decrease - Emissions
- 2012 - 2015: 18% Increase - Cargo Volume
12% Decrease - Emissions

Total: 2005 to 2015

49% Increase In Cargo Volume

38% Decline In Emissions



QUESTIONS?