

Seaport Air Quality Program Update

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Briefing Overview

- Northwest Ports Clean Air Strategy Implementation
 - Cargo-handling equipment
 - Rail
 - Harbor vessels
 - ABC Fuels
 - Clean Truck Program
- Green Gateway Initiative

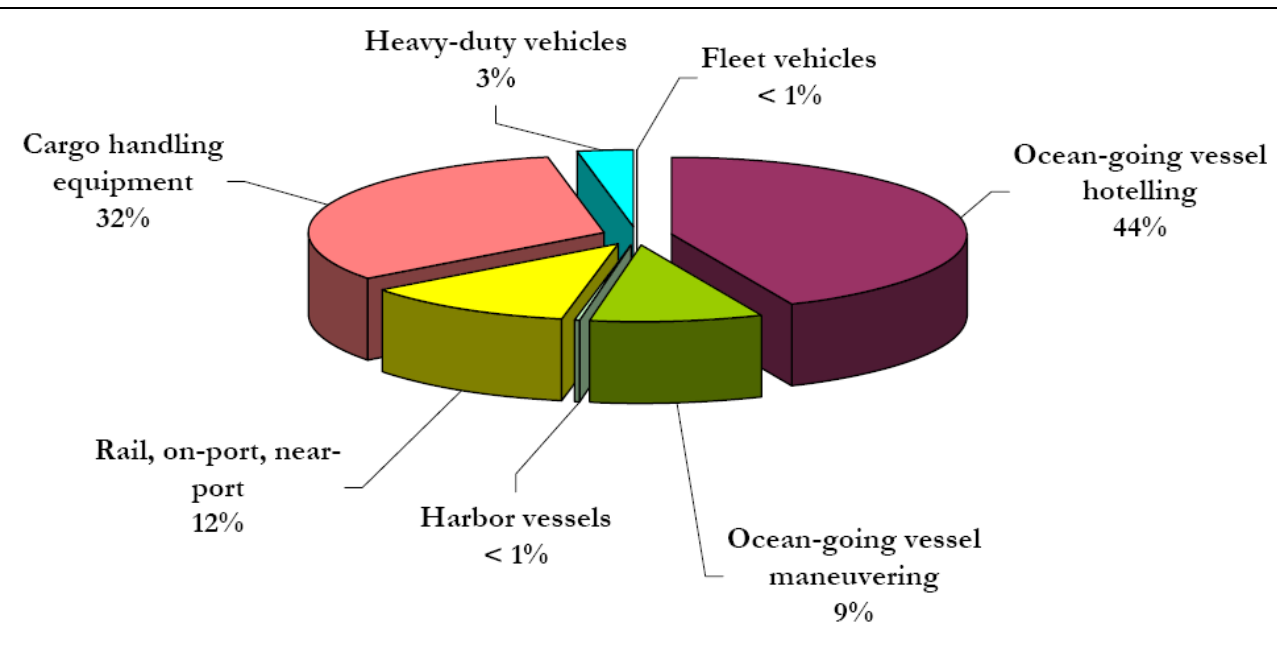
Seaport Air Quality Program

- Collaborative, voluntary approach
- Pollutants of concern:
 - Diesel particulate matter
 - Greenhouse gases
- Reduce impacts on public health and the environment while maintaining a vibrant seaport
- Fact-based
- Looks for both emission reductions and goods movement efficiencies

Regional Port Emission Contributions

- Port contributions to regional PM emissions from all sources:
 - Tacoma: 7%
 - Seattle: 9%
 - Oakland: 6%
 - Los Angeles: 9%
 - Long Beach: 9%
 - Houston: 3.4%
 - New York/New Jersey: 1%

Diesel Particulate Matter Port of Seattle Seaport



Source: 2005 Puget Sound Maritime Air Emissions Inventory



Northwest Ports Clean Air Strategy

Port of Seattle
Port of Tacoma
Vancouver Port Authority

December 2007

Port of Seattle



PORT METRO
vancouver



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Environment
Canada

Environnement
Canada

Cargo-Handling Equipment

- Significant grant funding from PSCAA, WA Dept. of Ecology, and U.S. EPA
 - Level 1 and Level 2 exhaust retrofits
- Expect all eligible CHE to be retrofitted by end of Q1 2010
 - Level 1 retrofits reduce particulate matter emissions by 25%
 - Level 2 retrofits reduce particulate matter emissions by 50%

Rail and Harbor Vessels

- Rail:
 - Switcher engine anti-idling at Terminal 86
 - U.S. EPA grant to repower 3 BNSF switcher engines operating in the Seattle/Tacoma area
- Harbor Vessels:
 - Supporting PSCAA grant application to repower the Andrew Foss tug

ABC Fuels

- Pilot program with Puget Sound Clean Air Agency
- \$1,500 incentive for use of 0.5% sulfur fuel in auxiliary engines while at a Port of Seattle berth
- Eligible lines must call 5 or more times/year
- 8 Participating Lines:
 - Hapag-Lloyd
 - Matson
 - APL
 - Maersk
 - COSCO
 - Hamburg Sud
 - Norwegian Cruise Line
 - Princess Cruises
- 236 calls in 2009 (30% of all vessel calls)
- 64 metric tons of sulfur reduced

Clean Truck Program

- Northwest Ports Clean Air Strategy Truck Performance Measures:
 - 12/31/2010: All trucks must meet Federal 1994 PM emission standard
 - 12/31/2015: 80% of trucks must meet Federal 2007 PM emission standard (100% by 2017)
- Mandatory
- Fee Free
- Provides incentives
- OSR Small Business Assistance
- Extensive stakeholder outreach/engagement
- Fleet age analysis (8/2007)
 - 76% of trucks are MY 1994 or newer

Particulate Matter Emissions from Drayage Trucks

- Drayage operations to/from terminals and intermodal yards contribute to port emission profiles:
 - Port of Tacoma: 1%
 - Port of Seattle: 3%
 - Port of Oakland: 7%
 - Port of Los Angeles: 40%
 - Port of Long Beach: 36%
 - Port of Houston: 5.6%
 - Port of New York/New Jersey: 12%
- Why do the percentages differ?
 - Distance from terminals to intermodal yards
 - Percent of containers moved by truck vs. on-dock rail
 - Terminal turn times
 - Regional traffic congestion

Truck Parking

- South Harbor Truck Parking Work Group
 - Purpose: To provide input on south harbor neighborhood parking and routing issues.
 - Partners include City, SDOT, community, industry, labor, and environmental groups.
 - Recommendations presented to Commission and City Council in May 2009
- Terminal 25 South interim truck parking facility
 - 3 acres
 - Opened July 1
 - No fees
 - Used by 75 trucks, 15 cars (typical Monday 6 AM)
- SDOT continuing to study recommendations

Implementation Elements

- MTO lease amendments
- Seaport Truck Scrappage and Retrofits for Air in Puget Sound (ScRAPS)
- Drayage Truck Registry
- Communications and Outreach Plan
- Slow Start Plan

January 1, 2011: Begin Mandatory Clean Truck Program at all Port of Seattle container terminals

Seaport Truck Scrappage and Retrofits for Air in Puget Sound (ScRAPs)



**Dennis McLerran
Amy Fowler**

**Presented to the Board of Commissioners
of the Port of Seattle**

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January 12, 2010

Why is this Program Being Offered?

- Older trucks create 100 times more air pollution than modern trucks
- As of December 31, 2010, no pre-1994 engine trucks will be allowed to access terminals at the Port of Seattle
- Port of Seattle, Agency, and other program partners have created financial incentives for up to 400 truck owners to upgrade from old, dirty trucks to newer, cleaner, retrofitted trucks



Program Overview

- A \$5 Million program, launched in two phases, that will:
 - Offer incentives to owners of container-hauling trucks that have pre-1994 engines to scrap them
 - Offer late-model replacement container-hauling trucks that are already equipped with pollution-reducing exhaust retrofits to those who scrap their trucks



What Trucks Are Eligible for Scrapping in Phase I?

- Pre-1994 engine
- Used in 2009 to haul containers to/from Port of Seattle
- Currently licensed
- Currently insured



How Much is the Scrappage “Bounty”? (How Much is my Old Truck Worth?)

- Whichever is higher:
 - The “book” value of the old truck on the open market
 - \$5000
- Owners who disagree with valuation can get appraisal at own expense from specified appraiser



What if I Still Owe Money on My Old Truck?

- Must owe less than scrappage bounty on any existing loans at time of scrappage
- Must satisfy any existing liens before scrapping



What do These Old Trucks Look Like?



Where is the Money Coming From?

Phase I, focused on trucks serving Port of Seattle:

- Port of Seattle grant for scrappage (\$1.5M) and retrofits (\$200K)
- Department of Ecology grant for retrofits (\$350K)
- Agency funds for retrofits (\$148K)

Phase II, in early 2010, expands focus to trucks serving Port of Tacoma and City of Tacoma and adds:

- Federal Department of Transportation grant to City of Tacoma for scrappage and retrofits (\$2.5M)
- Cascade Sierra Solutions loans for retrofit installations (\$335K)



How Will the Program Work?

- Cascade Sierra Solutions (CSS) is running program for Agency
 - Owner goes to CSS's Seattle Green Truck Center to apply to scrap truck
 - If not buying a replacement truck, or if buying a replacement truck through another local dealer, get truck scrapped at Arrow Metals & bring scrappage receipt to CSS to get check
 - If buying a replacement truck through CSS:
 - Select replacement truck from CSS's list & apply for financing; CSS has exhaust retrofit installed on replacement truck
 - Arrange pick-up appointment for replacement truck
 - Get truck scrapped at Arrow Metals & bring scrappage receipt to CSS to sign papers & pick up replacement truck



Cascade Sierra Solutions Seattle Outreach Center

- Startup funding assistance provided by Agency in FY09/FY10
- Located near Port of Seattle on SW Michigan Street
- Offers full line of EPA SmartWay fuel-saving retrofit technologies
- Offers exhaust retrofit technologies to reduce emissions
- Grand opening held October 17th



Example CSS Truck Replacement

1990 truck scrappage valuation	<5000>
2005 replacement truck from CSS	\$27,900
Exhaust retrofit (~ \$5000 value)	< <u>no cost to buyer</u> >
Final cost of replacement truck	\$22,900

(5 years @ \$475/mo)



If I Scrap my Old Truck, do I Have to Buy a Replacement Truck?

- No
- Can take scrappage bounty payment and leave drayage business



Do I Have to Buy a Replacement Truck Through Cascade Sierra Solutions?

- No
- Can go to any truck dealer to purchase truck with 1994 or newer engine
- Cascade Sierra Solutions can offer financing to buyers who might not be able to get loans elsewhere
- Other dealers will work through Cascade Sierra Solutions to have the free exhaust retrofit installed



Results To Date

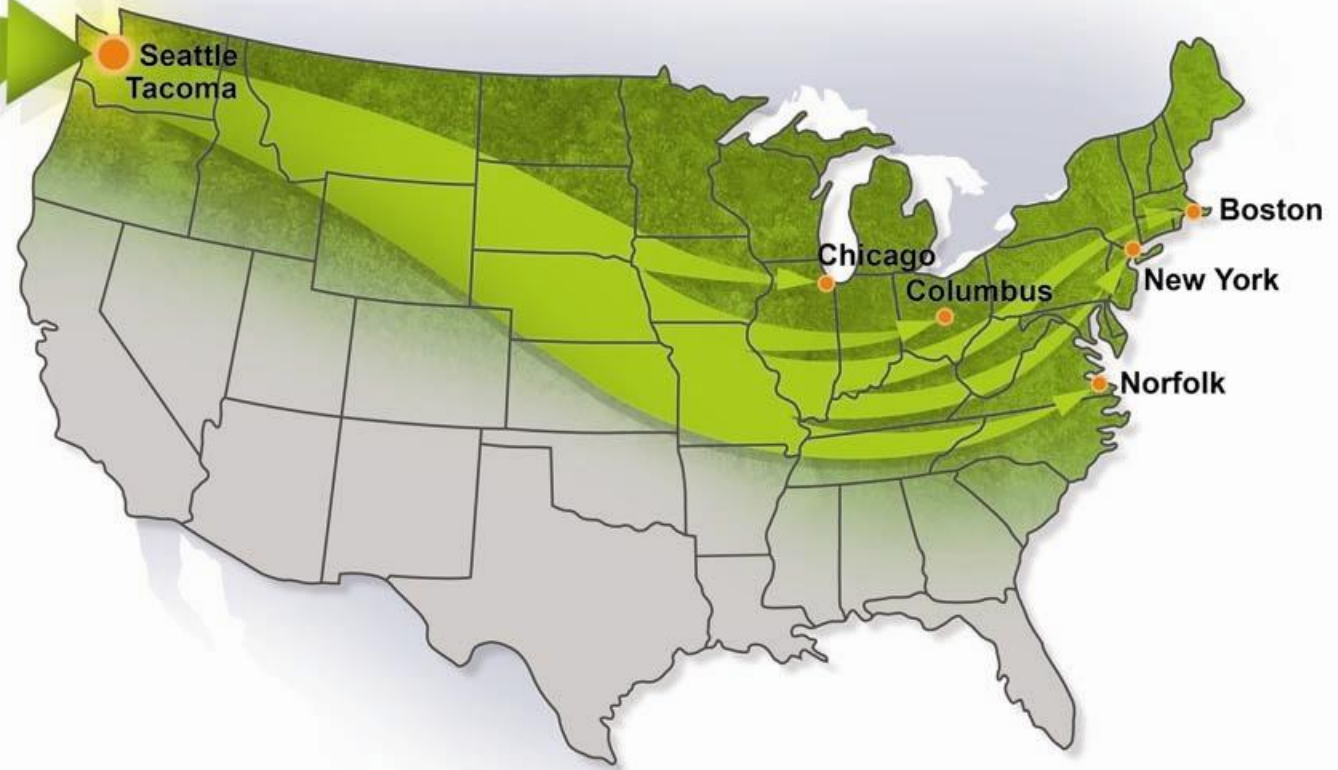
- Program launched November 18th
 - Port of Seattle Trucker Resource Fair
 - CSS had already been taking applications
- First truck scrapped November 19th!
- 25 trucks scrapped by end of 2009



THE GREEN GATEWAY

Puget Sound

Asia



Green Gateway Update

- Working with DNV to verify May 2009 Herbert Engineering study
- Requested Herbert to conduct additional analysis:
 - Asian ports of Ho Chi Minh, Busan, and Tokyo
 - N.A. destination cities of New York, Atlanta, and Norfolk
 - Vessel utilization from 40% to 100%
 - Vessel eco-speed
 - Truck trips up to 300 miles inland
 - Develop computer-based analysis tool