

2011 Maritime Emission Inventory Forum Meeting

June 28, 2011

4-6pm

Tacoma

Meeting called by: Port of Tacoma
Facilitator: Ron Stuart
Attendees: See Attendee sign in sheet

Minutes

Agenda item: **Welcome Address - Stephanie Jones Stebbins –
Director, Seaport Environmental and Planning
Programs.**

Discussion:

What is the 2011 inventory?

The 2011 Puget Sound Maritime Air Emissions Inventory is an update to the baseline inventory produced in 2005. The 2005 baseline identified and quantified pollutants emitted from maritime-related diesel equipment operating within the greater Puget Sound region. It was conducted voluntarily and proactively to provide a strong technical foundation to support future policy decisions. The inventory update will measure maritime emissions for the calendar year 2011 as well as provide a comparison to the baseline 2005 inventory.

Why are we updating the inventory?

The 2005 baseline emissions inventory provided scientifically valid data to improve understanding of the nature, location, and magnitude of emissions from maritime-related operations, to aid in the planning and prioritization of pollution prevention investments in the region. The maritime industry utilized this information produced the Northwest Ports Clean Air Strategy and other initiatives to reduce emissions in the Puget Sound Airshed. The 2011 inventory will provide document emissions reduction since 2005 providing guidance for future emission reduction initiatives, and aid Pierce County, Ecology and EPA place maritime emissions in the correct context when developing a solution to the fine particulate non-attainment designation in Pierce County.

Who developed the emissions inventory methodology?

Starcrest Consulting Group, LLC developed the methodology for the 2005 baseline inventory in cooperation with members of the Puget Sound Maritime Air Forum, a voluntary association of private and public maritime organizations, ports, air agencies, environmental, public health advocacy groups, and other parties with operational or regulatory responsibilities related to the maritime industry. The 2011 inventory update will follow the same basic methodology as the 2005 baseline inventory.

Technical Approach

The 2011 update will cover the same geographical extent as the 2005 baseline - the U.S. portion of the Puget Sound Airshed. Emissions will be divided and categorized much the same way. Data and technical guidance will be collected from ports, individuals and companies that own, operate, maintain equipment and vessels. Contributors include ports, terminal owners, vessel captains and engineers, equipment operators and others having first-hand knowledge of their equipment or operational parameters. Data also will be provided by other government agencies and industry associations. Because of budget limitations, the 2011 inventory update relies more on in-kind contributions of data providers and less on consulting services to collect and collate data.

What does it measure?

The emissions inventory will estimate emissions from maritime-related activities. Pollutants include EPA criteria pollutants and precursors, greenhouse gases and diesel particulate matter. Emission will be calculated for six major source categories:

1. Ocean-going vessels (such as cargo and cruise ships, tankers)
2. Harbor vessels (tugs, ferries, recreational vessels, etc)
3. Cargo-handling equipment (cranes, straddle carriers, forklifts, etc.);
4. On-road heavy-duty vehicles (trucks, buses, etc.)
5. On-terminal fleet vehicles (passenger cars and trucks)
6. Rail operations.

Why does the inventory focus on diesel engines?

Marine diesel engines are significant generators of fine particles and toxic emissions. Exposure to these pollutants can contribute to increased rates of lung cancer, chronic respiratory and cardiovascular disease, and other health effects. Diesel emissions also contribute to acid deposition, climate change and impaired visibility.

Who will fund the emissions inventory and how much did it cost?

The 2005 inventory cost about \$520,000, not including substantial in-kind contributions from project participants. Funding was provided by EPA and members of the Forum's Steering Committee. The 2011 inventory update is funded at a much lower level (\$230,000) with contributions from BNSF Railway, Northwest Cruise Ship Association, Pacific Merchant Shipping Association, Port of Anacortes, Port of Everett, Port of Seattle, Port of Tacoma, Puget Sound Clean Air Agency, Washington State Ferries and Western States Petroleum Association.

What's next?

This project will update the most complete picture of maritime-related emissions in the greater Puget Sound region. This data will enable the maritime community to better design and implement cost-effective, fact-based air pollution control strategies to help maintain air quality standards, minimize health risks and protect the environment

Agenda item: Review Current Activity in Preparing for the 2011 Puget Sound Air Emission Inventory: Bruce Anderson Starcrest Consulting

Discussion: Starcrest "Walk Through" Draft Methodology Document

- Difference in Project organization and execution 2005 vs 2011
- 2011 Project Scope & Schedule
- Briefing in Methodology
- Questions and Answers

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Ocean-going vessels (such as cargo and cruise ships, tankers)
Harbor vessels (tugs, ferries, recreational vessels, etc)
Cargo-handling equipment (cranes, straddle carriers, forklifts, etc.);

On-road heavy-duty vehicles (trucks, buses, etc.)
On-terminal fleet vehicles (passenger cars and trucks)
Rail operations.

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Agenda item: Sector Discussion

Discussion: Open discussion with sector workgroups.

- **Ocean going ships,**
- **Harbor vessel,**
- **Rail and locomotives,**
- **Cargo handling equipment and**
- **Heavy/Light duty trucks.**

The meeting room was set up with booths representing each sector. Workgroup leads representing each sector were available to discuss progress to date and answer general questions. Meeting attendees were encouraged to move about the room and meet the workgroup members.

Agenda item: Next Meeting

Discussion: To be scheduled for June 2011