

## 2011 MARITIME EMISSION INVENTORY UPDATE PROJECT STEERING COMMITTEE MEETING

- Date:** 6 April 2012
- Location:** Port of Tacoma
- Attendees:** Ron Stuart (POT), Jason Jordan (POT), Bruce Anderson (Starcrest), Cindy Lin (POT), Ellen Watson (POS), Frank Holmes (WSPA), Frank Van Haren (ECY), Jordan Royer (PMSA), Joe Ray (Starcrest), Guiselle Aldrete (Starcrest), Rose Muller (Starcrest), Janice Gedlund, Kelly McGourty (PSRC), Renee Klein (ALA), Wayne Elson (EPA), Sheila Helgath (WSF)
- Agenda:**
1. Review of February 15<sup>th</sup> meeting's Action Items
  2. Budget Update
  3. Data Collection Update
  4. Decision of Scope/Budget/Schedule for Ecology Additional Reporting Grant
  5. Discussion and Decision on using POLA/POLB or EPA CHE load factors
  6. Discuss Report Timing for both Regional Truck Models Moves and Mobile6
  7. Set the date, agenda, and location for the first Communication Workgroup

### **Budget Update:**

No change in budget since the last meeting. 70% of the budget remains. Starcrest has not submitted March invoices yet, but aims to do so by the middle of the month. Starcrest (Bruce) anticipates more to be invoiced in the next couple of months as the calculations and report come together.

### **Data Collection Update:**

Harbor Craft (Guiselle) – Data collection is complete. The import file is under review and will be used to estimate emissions soon.

OGV (Bruce) – Meeting with the Puget Sound Pilots next week to review OGV speeds. The database and import files are coming together and will be used to estimate emissions soon. Princess may have a few shore power calls to include. Port of Seattle will email Marie Fritz to get info from Princess.

Rail (Joe) – Still need data from BNSF. The port data that has been collected is sufficient, but would like terminal specific container counts if available. Port of Tacoma will send Joe intermodal lifts by terminal for the Port of Tacoma. Joe already has this data from the Port of Seattle.

### **Decision of Scope/Budget/Schedule for Ecology Additional Reporting Grant:**

Due to sequence of the tasks in the report preparation, the original Task 2 (2005 v 2011 emissions comparison) has been renumbered as Task 1. Task 1 under the Ecology scope is to compare the 2005 and 2011 emissions inventory results. Starcrest estimates that this task, as originally scoped, will cost roughly \$10,000. This task originally did not include individual port comparisons (only a Puget Sound total comparison) nor any metrics (emissions/cargo throughput), but would show differences between the two years in TEU, tonnage, and/or passengers. The comparison emissions will be developed using 2011 adjustment factors (as needed to correct for new emissions factors, load factors, etc.) applied to the 2005 emission estimates so that emissions are comparable. Emissions for 2011 and 2005 are controlled emissions (after incorporation of all emission reduction measures). The original scope for 2005 vs 2011 emissions comparison include the emissions comparison by source category.

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Steering Committee – the comparisons need to be available by port and include basic emissions metrics.

The revised Task 1 emissions comparison would include the following items for total Puget Sound, POS, POT, POE, Port of Olympia (POO), and Port of Anacortes (POA):

- 1) 2011 vs 2005 comparison (with adjustments for changes in emissions factors, load factors, etc.) of controlled emissions, by source category and total.
- 2) Cargo throughputs (TEU, tons, and/or passenger) – provided by each associated port above – for 2011 and 2005.
- 3) Basic emissions metrics for each of the above ports (total emissions/cargo throughput)
- 4) Text and table additions in the report to support items 1-3 above. This task will be incorporated in the 2011 Puget Sound Emissions Inventory update report.
- 5)

Revised cost estimate for Task 1 (2005 vs 2011 Emissions Comparison) - \$15,000

Task 2 - Task 2 will be the estimation of the reductions achieved during 2011 by the major Clean Air Strategy (CAS) emission reduction strategies implemented by Port of Seattle and Port of Tacoma. The following strategies will be included:

- 1) OGV: shore power and the ABC fuel switch program.
- 2) Harbor Craft: the availability of low sulfur fuel and reported vessel repowers. Data will need to be provided on the engine that was replaced in order to determine baseline emissions.
- 3) Cargo Handling Equipment: fuel changes and engine retrofits. Information on the retrofit type and control efficiency will need to be provided.
- 4) Trucks: ban of 1994 and older trucks calling at the port terminals.
- 5) This task will be in a separate stand-alone addendum detailing 1-4 above, including supporting tables, and will be completed by the end of August 2012.

Revised cost estimate for Task 2 - \$20,000

Starcrest (Bruce) suggested another option would be to show emission changes through metrics. This would analyze emission changes per cargo throughput at a source category and port level. It was decided that low-level metrics would not be feasible. High-level metrics such as cargo by port will be included. If individual ports would like more detail, such as low-level metrics, they can negotiate with Starcrest separately.

Starcrest (Guiselle) – Starcrest will revise the scope of work and resubmit. Guiselle will create an example with one source category comparison and send it out to the group for review. The revised Task 1 will include emission comparison totals by port and will show a chart of tons of cargo and total emissions per measure of cargo. Task 1 will be included in the report comparison section and will list different programs and strategies qualitatively.

Task 2 will detail the CAS emissions reductions for 2011. Task 2 will qualitatively list when strategies were implemented and will show the impact of these strategies on 2011. We will only be able to show the impact on 2011 emissions because we only have data for 2011.

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The cost of Task 1 will increase due to the addition of the port component. Starcrest will evaluate the grant money and decide how to distribute the money across Tasks 1 and 2. The revised scope will include a price breakout. Ecology commented that we will need to make sure the deliverables don't change, but moving money between tasks should not present a problem. Task 1 will be included in the report, while Task 2 will come out after the report is finalized.

If individual ports would like more detail, such as more detailed metrics, they can negotiate with Starcrest separately.

Starcrest needs 2005 and 2011 TEUs for Olympia and Anacortes. The Port of Tacoma needs to resubmit TEUs unrounded. Guiselle will send an email to collect this data.

### **Report Timing:**

Starcrest (Guiselle) – A report draft in on schedule for mid-May. Draft report sections for source categories will be submitted as they become available.

PSRC– Travel model data has been received and MOBILE6 data should be finished soon. There have been problems with the MOVES model and EPA has given a one-year grace period. It has been decided to provide MOBILE6 emissions and emission factors for use in 2011 PSEI truck source category. Moves can be added as an addendum or as an appendix to the report if it is provided by mid-July 2012. Kelly will provide language for the report explaining that the trend line for the two models is the same, but the overall emissions are different.

### **Decision on using POLA/POLB or EPA CHE load factors:**

For cargo handling equipment source category, the 2005 emissions used EPA load factors. Since 2005, a yard tractor load factor study has been conducted by Starcrest and used for the Port of Los Angeles and Port of Long Beach Emission Inventories. A consensus is needed for which load factor to use for yard tractors – keep the EPA NONROAD factor or use the latest factor based on the yard tractor study.

Starcrest (Bruce) – the EPA load factors are very general that are supposed to encompass all port and non-port related equipment types. The POLA and POLB load factors were derived from data collected on a port terminal and are port terminal equipment specific and not general like the EPA factors. Changing the load factors used is not a significant amount of work.

It was suggested that EPA and Ecology should weigh in on what factors used.  
WS Ferries supports changing the load factors

### **Communication Workgroup:**

Port of Tacoma will to facilitate the first meeting with the group. They will send out a doodle to the communication workgroup to set up a meeting time.

### **Additional Items:**

The implementation of the emission control area will greatly impact marine air. Would like to possibly reference in the EI in a looking forward section.

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It was noted the the ECA will be referenced in the NW Clean Air Strategy and 2011 to be used as the pre-ECA baseline

American Lung Association announced that – the annual State of the Air report will be released on April 26<sup>th</sup>. Will send the report numbers out to the group.

Starcrest (Bruce) – In order to apply POLA and POLB Tanker study findings, need percent by call loading and discharging by facility in order to make adjustment. Need these numbers for 2005 and 2011.

EPA commented that Neah Bay OGV monitoring data may be available to provide ports with preliminary data.