



## WEST COAST COLLABORATIVE

Public-private partnership to reduce diesel emissions

### West Coast Collaborative Marine Vessels and Ports Workgroup

*October 5, 2005 Meeting Notes*

On October 5, 2005, the West Coast Collaborative Marine Vessels and Ports Workgroup met at the Port of San Francisco. While the Workgroup had previously concentrated on information sharing and project funding, the purpose of the meeting was to consider and/or confirm desired areas of collective action and to develop plans to set in motion any agreed upon collective actions.

These notes are intended to provide a summary of the day's discussion, but are not meant to represent meeting minutes. A list of meeting attendees can be found at the end of these notes.

#### **Opening Remarks**

Jay Ach, Port of San Francisco, welcomed the Marine Workgroup to the Port of San Francisco. The Port has transformed dramatically since the 1989 Bay Area earthquake. Along with redevelopment to a more useful and attractive waterfront area, there has been the challenge of mitigating the negative impacts of growth. Currently, the Port of San Francisco is working on a new cruise terminal that is developing in consultation with a cross section of the community. In many ways, this local forum mirrors the overall Collaborative. The Port recently received a grant from EPA to help subsidize the cost of using Ultra Low Sulfur Diesel in ferries. The Port will continue to incentivize the adoption of clean fuels and has also committed to find resources that could bring shoreside power to the new terminal.

Deborah Jordan, U.S. EPA Region 9, welcomed participants on behalf of the Collaborative. As the Collaborative has grown in the past year and a half, there have been many stories of success along the way. But the true accomplishment has been the cooperative and candid conversation among a diverse group of people to create new ways of approaching challenges. EPA continues to support diesel emission reduction through the work of the Collaborative and is excited for the anticipated \$4 million RFP to be released by EPA in December.

Dennis McLerran, Puget Sound Clean Air Agency, framed the purpose of the meeting and the direction for the Workgroup. This meeting was the Workgroup's fourth face-to-face encounter, building on previous discussions starting in April 2004 in Seattle, July 2004 in San Francisco and Seattle in March 2005. Shipping growth from Asia continues to grow briskly and many sides of the industry are trying to deal with growing emissions fairly and equitably. This group has the potential to significantly influence the approach to controlling emissions and this meeting was an attempt to move the dialogue to the next level in thinking about collective action. Dennis reviewed the agenda to set the stage for the discussions to follow.

The facilitator for the day was Bill Ross, Ross & Associates. Bill emphasized that the meeting was in place because the participants requested to explore the nature of their connectedness. That is to say, while some collective action has happened in an ad hoc fashion, the intent of the meeting was to determine how consciously and explicitly the Workgroup wants to come together on specific issues. He also reminded the Workgroup of the ground rules which helped guide the discussions. The key ground rule was that action coming out of the meeting does not assume workgroup consensus – no person or entity is required to join in any collective action. By that same logic, any group or sub-set of the workgroup is free to take whatever collective action they choose, with or without the approval or blessing of other participants. Finally, as always, these discussions and potential voluntary actions are not meant to necessarily influence or take the place of each entities normal course of work, including regulatory or rule-making action.

## **Emerging Technology, Best Practices, and Policy Opportunities**

Operations along the West Coast and in other areas of the country (and world) are piloting, testing, and demonstrating cutting edge technology and best practices throughout the marine sector. There appear to be opportunities to accelerate the diffusion of improved practices and equipment. While there are several examples of tested technologies, Workgroup members have found it difficult to easily find detailed information about results. In some cases the information is hard to access and in others it may not be easy to understand. One specific action could include creating a technology information clearinghouse.

Alicia Blancarte, Port of Vancouver, volunteered as the temporary champion of the clearinghouse concept to help articulate a starting point to consider. She identified several key components and ideas of what a useful technology profile would look like.

- Description of technology and/or project
- Contact at the port
- Technology verification status
- Cost
- Vendor(s)
- Links to supporting documents and/or studies

In addition, there may be value in website functions such as searching and password protected areas.

In addition, Alicia suggested that one possible website location for the clearinghouse could be the Pollution Prevention Resource Center (PPRC) which works in conjunction with the P2RX consortium. The Marine Workgroup could create a new category of information on the site. One advantage of this site is that they have a common database to share information with multiple sites.

Initial reactions generally supported and confirmed Alicia's vision for the need for such information. Workgroup participants generally validated the concept of a clearinghouse and the discussion that followed helped refine the issues. A few key themes emerged:

- *Starting point vs. end point.* Some participants suggested that the real value in the clearinghouse will be to identify the best available information that would help justify or direct due diligence. The clearinghouse could identify a broad range of policies, plans, and projects that have been demonstrated or put in place, but would not be designed as the end point of research for interested parties. Participants also acknowledged there will be some technologies or policies that can't be listed for competitive or political reasons. This suggests that it would be more of a starting point for a selection of policies, plans, and projects (selection process considered more below).
- *New information vs. existing.* The discussion reflected an awareness of the large effort required to keep website information current and relevant. While it was suggested that contractor support is likely needed for website administration (and therefore funding resources), participants also articulated a caution that port representatives don't have the time to create new material for the website. Materials to populate the clearinghouse would likely focus on existing information or potentially re-packaging existing material.
- *Projects vs. equipment manufacturers.* There was concern that the site should not evolve into a vendor advertisement, however, it was also suggested that a particular

vendor area could help generate funds to support the site. Where specific technologies have been tested in a marine application, participants supported posting that information. It was also noted that technologies or efforts that failed should be identified. Finally, some comments reflected a caution that the site cannot imply an endorsement of a product or policy, but should be presented as objective information.

- *Shore-based efforts.* Most marine industry emission reduction activity is taking place on shore-based equipment, such as converting cranes from diesel to electric, replacing equipment, and using clean fuels. Some participants felt that there is a critical mass of large companies in multiple locations along the coast to take advantage of some economies of scale. However, many other participants believed there were few opportunities to collaborate on projects in multiple spaces. In the end, participants generally agreed that greater information exchange was the most appropriate course of action at this time. Rather than attempting to piece together projects in multiple locations, a robust clearinghouse could be very effective at accelerating best practice adoption. It was strongly suggested that shore-based project information be a priority for the information clearinghouse.
- *West Coast vs. Elsewhere.* Several participants noted that innovative and cutting edge efforts elsewhere in the country, such as the Gulf Coast, could be helpful. Furthermore, European-based participants suggested that there is a wealth of information in Europe that could be leveraged in the U.S.
- *Information for ports vs. others.* While it seemed clear that port authorities were most interested in the notion of a clearinghouse, some participants suggested that it would also be helpful if the site could identify industry needs in such a way that helped spur private sector technological development or innovation.
- *PPRC vs. Clean Ports USA vs. Clean Cities vs. Collaborative website.* Four options for a home site were brought up for consideration. 1) PPRC is mentioned above. 2) Trish Koman, EPA lead for Clean Ports USA, joined by phone to describe the intentions for the national website and their intent to use it as a tool to recognize ports efforts. It would appear that the intent as well as the timing of the EPA site development may not fit the Collaborative clearinghouse needs. 3) The Clean Cities site has an existing nationally recognized infrastructure that could be valuable and relevant, but more research would be needed. 4) The current Collaborative website does have an information clearinghouse started that could be expanded to encompass the features identified above. Also, other Collaborative sector workgroups may wish to follow the marine lead in expanding their own clearinghouses.

At the end of the session, the Workgroup identified volunteers to work on the clearinghouse. The volunteers will meet by teleconference to address the key questions below and work to create a mock-up in advance of the next full Workgroup call on November 22, 2005.

There are at least five key questions to answer clearly:

- What is the purpose/audience of the clearinghouse?
- What are the technical needs for the website (e.g., search functionality, access, feedback)?
- What is the management/administration process to post information?
- Where could the clearinghouse be located?
- What are the funding needs and strategies to achieve these goals?

Volunteers included:

- Alicia Blancarte, Port of Vancouver
- Barbara Cole, Port of Seattle

- Dave Breen, Port of Portland
- Anne Whittington, Port of Oakland
- Heather Tomley, Port of Long Beach
- Peter Greenwald, South Coast AQMD
- Zorik Pirveysian, Greater Vancouver Regional District
- Trish Koman, EPA
- Bill Jones, EPA Region 9
- Jim Flanagan, Maersk
- John Showalter, ILWU

### **Partnering between Ports and with Port Customers**

Workgroup members have suggested that there may be partnership opportunities between ports and their customers to address major port operations by engaging in a different level of conversation. Barbara Cole, Port of Seattle, teed off the conversation by recognizing the existing good relationships between ports and their various customers and stakeholders. However, she posed the question whether there was sufficient reason for more formal coordination to build on the case-by-case and informal project cooperation that exists now. Furthermore, Barbara opened the question of whether there were stakeholder groups missing from the conversation, and if so, how could they be approached?

Barbara added some broad areas of potential interest:

- Standards and compatibility (e.g., fuels or shorepower)
- Impacting investment in ships and infrastructure

There was interspersed discussion around these issues, the summary below attempts to group the discussion into themes.

#### Standards and compatibility

Several participants suggested that setting standards through the IMO was likely to be most effective in addressing ship design and ship fuel use. Particularly for irregular callers, IMO standards would be more effective than port or airshed specific rulings. While issues around international standards and IMO did enter the discussion, those comments can be found in the final section below.

In the area of shoreside standards, one clear opportunity for improvement in standards is the shoreside power engineering specifications. While some ports or shipping/cruise lines have made case-by-case investment, the lack of a standard reduces the certainty that one technology will prevail, which hinders commitment to action.

#### Impacting investment in ships and infrastructure

It was estimated that orders for new ships in the next 12 months totals approximately \$30 billion and upwards of \$70 billion in the next 30 months. Other figures suggest 1200 ships are in the building queue, which represents approximately 30% of the world's fleet. (There are concerns for future oversupply in the industry). The ships require multi-year delivery lead times', however engine specifications may be determined up to one year before delivery. So, while many engineering specifications would have to forecast several years in advance, engine specifications may be easier (with respect to timing) to manipulate.

Shipping lines are looking for guidance – they want to know what policies/strategies are real and certain to plan around. For example, if more stringent air standards are certain, ships can be ordered with the proper equipment to lower emissions more cost effectively than retrofits. While standards are a firm tool, the culture of the industry is also changing dramatically to recognize their responsibility. For example, one specification that is starting to be regularly adopted is redundant tankage to take on multiple fuels. Such equipment prepares the ship to switch fuel types, particularly in the course of traveling in and out of SECAs. Other emission reducing specifications could include advanced emission control technology, such as sea water scrubbers. Despite the enthusiasm for potential influence, industry participants did point out the challenge that engineering decisions generally happen at corporate headquarters (often in Europe or Asia). The ability to influence ship design requires dialogue at the highest levels of the corporate chain.

While ship design decisions are complex and decisions are made remotely, influencing cargo equipment specifications may be easier to address locally. Several ports have recently successfully partnered with terminal operators to retrofit, replace, or refuel cargo equipment. Participants suggested that this may be an additional or alternative focus.

Thus far in the Collaborative Workgroup, PMSA has been directed to represent the carriers. PMSA has been a consistent participant and a well informed partner in the process. However, some participants suggested that experience in Europe and culture change in the industry could lead the way for more direct communication with individual companies, as well. In order to enter a productive dialogue, air regulators could articulate a vision to major companies on how to keep the West Coast attractive to business while finding mutually beneficial solutions to reduce emissions.

### Conclusion

The Workgroup felt there was value in formally coordinating to explore a deeper dialogue at the executive level between air regulators, ports, and shipping/carrier companies. The dialogue would address both the industry questions with respect to cost, certainty, and timing while industry could be asked to suggest incentives for a path forward.

A small sub-set of the Workgroup will convene by teleconference to determine the *process* and *content* of a potentially more in-depth dialogue. The sub-group will address the following questions:

- Who should be part of the dialogue?
- How should the dialogue be initiated/conducted?
- What air quality improvements *could* be targeted? What *should* be targeted?
- What incentives or approaches could be explored?

The volunteers included:

- Dennis McLerran, Puget Sound Clean Air Agency
- Roxanne Johnson, EPA Region 9
- Andrew Green, Environment Canada
- Rick Bryant, British Columbia Chamber of Shipping
- Shelina Sidi, Greater Vancouver Regional District
- Tom Jelenic, Port of Long Beach
- Alicia Blancarte, Port of Vancouver
- Barbara Cole, Port of Seattle
- Peter Greenwald, South Coast AQMD
- Claire Schary, U.S. EPA Region 10

- Dave Smith, BP
- TBD, Pacific Merchant Shipping Association

### **Working Lunch – Funding Update**

Terry Goff, Director Public Policy & Regulatory Affairs, Power Systems, Caterpillar Inc. joined the workgroup to help inform the discussion of the latest federal funding developments in Washington D.C. While many of this summer’s legislative action designated diesel related authorizations, few programs have appropriations in the federal budget (the difference being that authorizations do not commit resources, whereas appropriations do).

Mr. Goff highlighted four major areas of diesel related authorizations in the Energy Policy Act of 2005:

1. Diesel Emission Reduction Program
  - o \$200 million per year for 5 years
2. Diesel Truck Retrofit and Fleet Modernization (port focused) (section 742)
  - o \$20 million FY06, \$35 million FY07, \$45 million FY08
3. Clean School Bus USA (section 741)
  - o \$55 million per year for 2 years
4. Idle Reduction (section 756)
  - o trucks: \$19 million FY06, \$30 million FY07, \$45 million FY08
  - o locomotive: \$10 million FY06, \$15 million FY07, \$20 million FY08

Terry reported particularly on the recent meeting held by Senators Voinovich, Carper, and Clinton that proposed combining the various Energy Bill clauses into a single Diesel Emission Reduction Program (DERP). They have determined an appropriations strategy to ask that DERP be fully funded as an umbrella program and that the other programs be captured and funded within DERP. The strategy has a broad coalition of support from state and local agencies, citizen groups, and industry. West Coast Collaborative participants can contact Terry Goff or Dennis McLerran with questions.

### **International Shipping Standards**

International ship traffic represents a large and growing portion of the emissions at ports. While all ports face similar issues with ship emissions, competition between ports may make port-by-port unilateral action to control these emissions difficult. Equitable policies or standards that address international ship emissions might best be approached through the International Maritime Organization (IMO) and/or federal governments. The discussion focused on the potential to approach IMO to support more stringent standards for equipment and/or marine fuels.

Annex VI has been ratified internationally, but in the United States, Annex VI is still moving slowly; it has yet to come out of the Senate Committee on Foreign Relations. While there appears to be little opposition, there is also a lack of motivating forces pushing the issue. In Canada, the situation is similar, while there are indications that Annex VI may be approved in 2006.

As far as a SECA application goes, EPA and Environment Canada are currently exploring the feasibility of a North American SECA application in a joint technical effort. There has been widespread support, including from several Collaborative partners, to encourage the federal government(s) to pursue a SECA application.

The discussion turned to the potential to influence IMO's Marine Environment Protection Committee (MEPC). This committee is charged with recommending standards for the marine industry, including engine and fuel standards as they relate to air emissions. Some participants voiced a concern that IMO works slowly and does not take an aggressive approach to environmental standards. For example, Annex VI set a global limit of 4.5% sulfur content in marine fuels despite the worldwide average hovering around 2.7%. Based on this premise, Collaborative participants discussed the possibility of encouraging stricter emission standards from the IMO.

Among issues to consider, there was some discussion about the potential for a North American SECA application to request a sulfur content limit less than 1.5% (Annex VI currently designates 1.5% as the uppermost limit, but does not preclude SECA applications for less than 1.5%). Participants also mentioned the potential to look at more stringent NOx requirements under Annex VI. And there was mention of designing appropriate penalties for non-compliance to make sure existing standards were being followed (while IMO sets standards, it is up to the ratifying countries to enforce the standards).

While there was some support for more stringent standards, those familiar with IMO proceedings suggested a need for robust analytical information in order to propose changes at the IMO. It was suggested that the current level of detail in the Workgroup was insufficient to influence the IMO. Furthermore, while there is opportunity to influence the MEPC outside of official channels, without having ratified Annex VI and without having applied for a SECA, the U.S. and Canadian governments may not yet have international support for more stringent regulation.

Several participants warned about the danger of causing confusion or delay in approving Annex VI or applying for a SECA, even if there is a focus on more stringent standards. While both measures may not achieve the full range of desired reductions that Collaborative partners desire, they will be important steps for the time being.

Amid ideas to submit white papers through delegates with standing (other than the federal governments) or to initiate a sub-group to work on the issue, it became clear that there was not sufficient understanding within the Workgroup about the inner workings of the IMO to proceed at this time. There are several Workgroup participants who are involved with processes and/or conferences (such as Bunkerworld Marine Fuel Sustainability Conference) that will help increase the understanding up and down the West Coast. Before attempting to push the notion of more stringent standards, the workgroup concluded that efforts would be put on the back-burner until more information could be gleaned.

### **Action Plan - Conclusion**

As the day came to a close, Bill Ross helped to define an action plan based on previous discussions. Three areas of follow-up activity were decided. Ross & Associates will coordinate the future sub-group teleconferences and associated material development for the Marine Workgroup's next full conference call.

1. Information Clearinghouse: the sub-group that volunteered was charged with two tasks in advance of the November 22, 2005 workgroup teleconference.
  - a. Address the key questions (see notes above)
  - b. Create a clearinghouse form and/or website 'mock-up' to evaluate

2. Executive level Dialogue: the sub-group that volunteered was charged with two tasks in advance of the November 22, 2005 workgroup teleconference (see notes above for further detail)
  - a. Content – determine the air quality improvement approaches and incentives are worth discussing; and
  - b. Process – how should the Collaborative support or promote these discussions
3. IMO research: in preparation for the November 22, 2005 teleconference, Ross & Associates will collect information from Collaborative members and others as people develop a greater understanding of the IMO process.

In conclusion, this was a breakthrough meeting to change the nature and level of the dialogue within the Marine Vessels and Ports Workgroup. The candor of the conversation allowed for significant learning and understanding among the various stakeholders.

## Attendees

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