

West Coast Diesel Emissions Reductions Collaborative
Construction Sector Workgroup
Meeting Summary Notes
November 4, 2004

The Construction Sector Workgroup of the West Coast Diesel Emission Reduction Collaborative met by teleconference on November 4, 2004. The purpose of the meeting was to define and confirm Workgroup priorities and to facilitate progress on the next phase of projects.

Workgroup Priorities

Four areas were identified as likely areas of interest from previous teleconference meetings. Workgroup partners reported on these areas. For the most part, the discussions were more information sharing oriented.

Sea-Tac Third Runway Project

Tom Hudson, Puget Sound Clean Air Agency (PSCAA), reported mixed progress for several years due to lawsuits delaying runway construction. Although there were early attempts to switch over to a Lubrizol product, the fuel additive caused equipment power failure problems because of heavy loads and a long hill out of the site, the equipment needed immediate power and the trucks were not able to perform adequately. Due to the previous missteps, efforts are currently focused on re-establishing trust with the contractors.

The equipment, both on and off-road, currently uses ultra-low sulfur diesel and PSCAA would like to help fund and support tests for 5-10 diesel oxidation catalysts with the potential roll-out to the remainder of the fleet.

Initiated by the Port of Seattle, there is a contract requirement that the trucks being used are 1998 model year or later. Current efforts only look at haul trucks, but with success, they could look at additional equipment. There are some concerns about warranties with new equipment and contractors are hesitant to modify equipment. However, Caterpillar may be able to help address these issues.

Puget Sound Workshop

Frank Van Heran, Washington Department of Ecology, described an upcoming workshop conference for construction equipment on November 10th in Renton (South of Seattle) sponsored by Ecology and the Association for General Contractors. The conference has invited those who build and buy roads and buildings, fleet managers, equipment rental companies and air quality agencies. The conference is structured to begin with an educational introduction, and then the afternoon will include examples of projects to illustrate options. Several examples will be highlighted from around the country, including New York City's ordinance to reduce emissions for heavy machinery. The concluding break-out sessions will explore opportunities in Washington.

The conference will not promote or push any particular approach; rather the conference aims to initiate a better dialogue with the construction sector.

Texas Emission Reduction Plan (TERP) and other incentive programs

Bob Lanham, of AGC's Environmental Resources Committee led a discussion on the Texas Emission Reduction Plan (TERP). TERP had its beginnings following California's Carl Moyer Program. The Carl Moyer program was originally only focused on NO_x, but now expanded to PM and VOCs; TERP is focused on NO_x. However, the main similarity lies in the incentive grant concept. Texas took a mandate approach to the construction industry and provisions and prescriptions within the SIP directed fleet turnover. Industry and air planning groups worked together to propose a Carl Moyer style program to the legislature. Industry accepted a surcharge and taxes on purchasing or renting equipment to fund the program as part of the negotiation. TERP is now fully funded (\$140 million in 2005) and is still oversubscribed – there were \$300 million in grant applications in the past round. TERP funds pay for retrofits, for the difference of a cleaner engine overhaul versus standard, and for equipment replacement. Although industry developed technical assistance to help small companies, TERP funds mostly go to large companies. 20% of TERP money is used for repower, but currently most money is going for equipment replacement.

For the construction sector, the average user of construction equipment is usually a small business working through trade associations with the government. The net worth of a construction company is essential cash and the value of equipment. And the net worth is crucial to bond work and serves as collateral in loans; therefore, any destruction to the value of equipment or any rule that devalues equipment will be unacceptable to the industry. Further complicating matters is that diesel equipment is designed for long lifespan.

California's South Coast has a similar program administered by the Mobile Source Reduction Commission (MSRC). South Coast collects funds from motor vehicle registration and works with various associations in southern California representing ~70% of the large contractors to distribute the resources. MSRC has put \$33 million toward repowering engines. South Coast estimates that repower efforts reduce emissions ten times as cost effectively as alternative fuels; ballpark estimate of \$6,000 per ton of PM reduction; NO_x estimates in Texas suggest per ton reductions no higher than \$7,000. However, as the low-hanging fruit is captured, cost effectiveness will deteriorate over time without technological advances.

Technology certification is required for credit, which is critical to further success. Yet the certification often poses a greater hurdle than expected. For example, Emissions Technology has a combustion catalyst that is available for \$1,200-\$1,500, but the technology is currently in line with CARB for certification. The catalyst could reduce fuel consumption by 10%, NO_x emissions by 27%, and opacity by 80%, however, to get it approved on Tiers 1-4 will likely be a multi-year process. CARB has a multi-media test for fuels or fuel additives because of the health risks and toxicity concerns. CARB is committed to streamline the process and nationally there is an MOA between CARB and OTAQ to coordinate certification.

Keys to Success from TERP and MSRC:

- Testing and modeling to set thresholds for technologies and to determine cost effectiveness. Cost effectiveness measures ensure that the funds are going as far as possible.
- Technical assistance to businesses is important, as is the competitive grant process. California's program is well staffed and relatively easy for contractors; however, Texas is more cumbersome and difficult for contractors and the agency is not staffed to provide much assistance.
- Identifying ways to identify funding at the state level; through coordination between industry, agencies, and environmentalists, TERP was established and Carl Moyer funding just got a huge boost. There must be broad-based support to get through the legislative process.
 - 2% surcharge for TERP generates 20%-30% of the program funding; other funding comes from title registration changes (one time, not an annual).
 - In CA, people pay a smog fee, pay a tire fee, pay a fee to avoid a smog check and a surcharge on vehicle registration – money from the DMV goes directly to the district.

Potential Next Steps

The Collaborative could be an important organizing force if Washington or Oregon attempted to create such a program. Both Northwest states have budget constraints that are more prohibitive than Texas and California, which would change the dynamic of funding. In addition, neither Washington nor Oregon have SIP issues pushing the action and would instead need to focus on air toxics impacts.

Two studies may be helpful for future projects:

- Roseville Rail station study from CARB:
<http://www.arb.ca.gov/diesel/documents/rrstudy.htm>
- EPA's Office of Policy, Economics, and Innovation (OPEI) has contracted with ICF to do a study on incentive programs across the country; the draft report will be complete in January. (The scope of work was distributed by email by John Brock on 11-4-04). Oregon and Washington would be interested in another level of information around local conditions to supplement the national effort.

For TERP details, see: <http://www.tnrc.state.tx.us/oprd/sips/terp.html>

Sacramento

Larry Greene of the Sacramento Metro Air Quality Management District (SMAQMD) developed a construction mitigation program implemented under the California Environmental Quality Act through land use permitting. SCAQMD set a threshold of 85 lbs/day of NO_x per piece of equipment; those with equipment over that threshold need to implement "feasible mitigation" – defined as 20% NO_x reduction and 40% PM reduction. The agency reviews all construction efforts based on the equipment list provided in construction permits and the equipment is compared to California fleet average.

The practice has seen little opposition among contractors or local jurisdictions. The estimated cost to meet the requirements, \$13,600/ ton, is the threshold cost of reduction. However, SCAQMD does not currently have feedback or information on what the true cost is.

Essentially large contractors choose to use the cleanest part of their fleet in Sacramento and small contractors generally use rental equipment (which is cleaner, newer on average). While companies' first choice is to bring in the cleanest equipment several have used PuriNox and others have repowered. In most instances that contractors modify their equipment, this program has simply provided further incentive for companies to use the Carl Moyer program.

Additional information is available from Larry Greene or Larry Sherwood of SCAQMD.

Collaborative Update

On September 30th, eight simultaneous press events were held in San Diego, Los Angeles, Bakersfield, Sacramento, San Francisco, Eugene, Portland and Seattle. Governor Ted Kulongoski of Oregon, Governor Gary Locke of Washington, CALEPA head Terry Tamminen and USEPA Administrator Mike Leavitt all participated in the roll-out. The events had an overall anti-idling theme including projects for the I-5 Corridor Idle Reduction Initiative (Los Angeles, Sacramento, Eugene, Portland, and Seattle), shore power for Princess Cruise Line ships in Seattle, locomotive idle reduction in Bakersfield and cleaner fuels for ferries in San Francisco. There was very positive press with over 40 news pieces in newspapers, on the radio and on T.V.

Next Steps for the Collaborative:

- Looking to identify \$1 million for projects next year to continue the momentum, hopeful to have that short-term funding approved early in 2005.
- Identifying and communicating existing grant and other resource opportunities.
- Migrating the website to an independent domain.
- Launching a monthly newsletter to consolidate the information from the Collaborative.
- Beginning plans for a February face-to-face Collaborative meeting in Seattle.

Workgroup Charter

The proposed Workgroup Charter gets down on paper the roles and responsibilities of the Workgroups and other parts of the Collaborative. This will ensure that everyone's working on the same page and will provide a tool to introduce new partners to the Collaborative. The Charter should be used as a guide for the Workgroup to direct the action and input is welcome.

Specifically, as laid out in the charter, the purpose of the Workgroups is fourfold:

- Idea generation and prioritization – set project and research priorities for the Workgroup
- Idea communication – this likely includes preparation of written materials suitable for sharing with potential funders
- Information sharing – act as a forum to exchange information and technology transfer
- Grow the Collaborative – identify and recruit others to participate in the Collaborative

The Interim Steering Committee has reviewed and supported the current draft of the Charter, however, comments and revisions directed to Michelle Roos (roos.michelle@epa.gov) are welcome until November 26th.

Announcements and Next Steps

Project description templates are attached to these notes and templates should be completed by December 10th. Over the course of the next week, we will identify project champions to work across borders to empower funding applications. Project descriptions will be used to create a portfolio of projects that shows a real need for action to reduce diesel emissions and an opportunity for measurable returns on investment. It can be used by Collaborative participants, individually and together, as they have conversations with budget decision makers and others who control sources of funding for diesel emissions reduction projects, to encourage identification and dedication of new resources.

There are several workshop announcements:

- CARB PM Controls Workshop on November 16th in El Monte, CA
- CRC Mobile source emissions conference November 30th – December 2nd in Scottsdale, AZ
- Faster Freight Cleaner Air conference December 8-9, 2004 in Oakland, CA (see <http://www.ffca2004.com>).
- 11th National Clean Cities Conference and Expo in Palm Springs, California May 1-4, 2005 (see <http://www.afvi.org/palmsprings>)

Attendees

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