Puget Sound Clean Air Agency (PSCAA) Diesel Fleet Facility Registration Program Stakeholder Process

Meeting Summary
March 16, 2009
Seattle, WA

Stakeholder Group Members in Attendance

Name	Organization
Chris Blazevich	NC Power Systems
Jim Boon	King County Metro
John Chavez	Burlington Northern
Brett Ferullo	Northwest Construction
Andy Fritchen	UPS
Dave Greer	Coca-Cola
Wayne Grotheer	Port of Seattle
Nels Johnson	Allied Waste Services
Sue Mauermann	Port of Tacoma
Allen Mitchell	Snohomish County Department of Public Works
Mike Moore	Pacific Merchant Shipping Association
Gene Questad	Boeing Company
Sarah Rees	Washington State Department of Ecology
Tim Sexton	Washington State Department of Transportation
Greg Tisdel (by phone)	Tiz's Door Sales
Glenn Tyrrell	Bainbridge Island School District
Greg Wingard	Washington Conservation Voters
Jack Ziebarth (by phone)	Gordon Trucking

Other Participants

Name	Organization
Jerry Dinndorf (observer)	Association of General Contractors
Matt Hink (alternate)	CalPortland
Dennis McLerran	PSCAA
Amy Fowler	PSCAA
Jim Nolan	PSCAA
Tom Beierle	Ross & Associates Environmental Consulting
Bill Ross	Ross & Associates Environmental Consulting

Name	Organization
Heather Rogers	Berk & Associates
Rob Willis	Ross & Associates Environmental Consulting

Welcome and Agenda Review

Bill Ross, Ross & Associates, welcomed the group and thanked the stakeholders for their active participation in the ongoing development of the Diesel Fleet Facility Registration Program (DFFRP). Bill said the intent of this meeting was to discuss the design considerations for developing the DFFRP and for stakeholders to provide feedback on the initial thinking by the Puget Sound Clean Air Agency (hereafter "the Agency") and Ross & Associates about the logic of the program's design. Stakeholders were reminded that the meeting will closely follow a narrative distributed prior to the meeting[1]. Bill encouraged the group to analyze the pros and cons of each program design option and to help indentify challenges that may arise during program implementation. Bill further explained that the stakeholder group offers a broad range of institutional knowledge and expertise with both the private and public fleets, which creates a unique opportunity for stakeholders to inform and shape the design of the DFFRP into a successful program. Bill said he hoped that this meeting would result in an emerging shared picture of program design. Bill introduced Dennis McLerran, Executive Director of the Agency.

Dennis welcomed everybody and provided a brief recap of the program overview meeting held on February 25, 2009. The purpose of the DFFRP, he said, is to provide stable funding to administer the Agency's Diesel Solutions program, which focuses on reducing diesel emissions within a four-county area of Washington State (King, Kitsap, Pierce and Snohomish Counties) by retrofitting vehicles with pollution control equipment, using cleaner fuels (including ultra-low sulfur diesel and biodiesel), and promoting reduced idling. Dennis said the Agency chose to implement a voluntary, incentive-based program to retrofit engines when it launched Diesel Solutions in 2001. An incentive-based program requires money to support it, and the Agency's current five-year funding source ended in July 2008. Dennis emphasized that diesel retrofits are a high priority, and the Agency intends to continue the program. The Agency will continue to find capital funding from EPA and other funding sources (e.g., DERA funding), however, Diesel Solutions' administrative costs require a separate and sustainable funding source. Dennis noted that this stakeholder process is designed to get stakeholder input on how to develop a registration program to support the administrative cost of running the program. Stakeholders are reminded that all meeting and orientation materials for the DFFRP can be found on the Agency's website[2].

Program Design: Focus on On-Road

Amy Fowler, PSCAA, and Tom Beierle, Ross & Associates, provided a brief overview of the program design objectives, challenges, and alternatives associated with facilities that own, operate, or host on-road diesel fleets. They jointly discussed slides 3 through 29 of the program design PowerPoint presentation[3] and emphasized the following points:

- A well-designed registration program should 1) be easy for the Agency and facilities to administer, 2) include meaningful incentives for facilities to upgrade their fleets, and 3) include as many diesel on-road and non-road vehicles as is practical.
- The number of facilities that own, operate, or host diesel vehicles in the four-county area is over 100,000.

[1] http://www.pscleanair.org/programs/dieselsolutions/registration/stakeholders/PSCAA_DFFRP_program_design_paper_meeting2.pdf
[2] http://www.pscleanair.org/programs/dieselsolutions/registration/stakeholders/default.aspx
[3] http://www.pscleanair.org/programs/dieselsolutions/registration/stakeholders/documents/PSCAA_DFFRP_slides_meeting2.pdf

- The total number of facilities in the program will determine the complexity (and cost) of program administration, enforcement, and outreach.
- Only facilities registered under the DFFRP can receive the program's services from the Agency.
- The "cleanliness" of an on-road fleet is a function of each vehicle's age, class, and retrofit status.
- Publicly available information on the characteristics of on-road and non-road diesel vehicles and equipment is limited.
- For on-road vehicles, the two main ways to assign responsibility for diesel vehicle emissions is to facilities that own the vehicles or to facilities that "host" the vehicles.
- A key difference between the ownership and host alternatives is that many more facilities function as hosts to diesel vehicles than own them.
- The primary disadvantage of the host design is that host facilities have limited control over (and knowledge about) the on-road vehicles potentially assigned to them.
- A hybrid program design incorporating elements of the owner and host design options could require all facilities that own diesel trucks in certain truck classes to register, including facilities with the smallest fleets. A small subset of key "host" facilities could also be required to register, thereby serving as a nexus between the agency and vehicle owners who need to register and who may need to receive assistance finding retrofit or vehicle upgrade resources.
- The benefits of such a hybrid program design include program cost reductions resulting from 1) electronic facility registration, 2) random compliance audits and 3) registration of the largest "host" facilities and the channeling of program services and sources of retrofit funds through these facilities to help retrofit or upgrade smaller fleets.

The stakeholders had the following questions and comments:

- How will the Agency define a facility within the DFFRP?
    - A "facility" could be defined as any facility that owns, operates, or hosts diesel vehicles and equipment. The stakeholder group will ultimately help define the range of what facilities fall within this definition.
- Is it fair to say that a facility must have an address?
    - Yes.
- What other revenue sources are available to operate the DFFRP?
    - The Agency has some flexibility in using funds to assist in the initial launch of the registration program. The Agency will continue to find capital funding from EPA and other funding sources (e.g., DERA funding) to pay for retrofits. However, Diesel Solutions' administrative costs will require a separate and sustainable funding source to allow it to operate and pursue those capital funding sources.
- How will the DFFRP treat entities with more than one facility within the four-county area?
    - The Agency will be looking to the stakeholder group to address this issue.
- Is the DFFRP a voluntary program?
    - Diesel Solutions is a voluntary incentive-based program; the registration program will be implemented through regulatory requirements under the Agency's existing statutory authority.
- Is the DFFRP limited to registering facilities with diesel fleets <u>in the four-county area</u>?
    - Yes. The program is legally limited to the Agency's regulatory boundaries, which include King, Kitsap, Pierce and Snohomish Counties. All facilities included in the Agency's registration program must be physically located within this four-county area.
- What is the primary goal of the DFFRP, and what benchmark has been set for it?
    - The primary goal of the program is to sustain the Agency's Diesel Solution program so that it can continue working to help reduce emissions from diesel vehicles and equipment. The Agency would like to see at least 50% of the fleet retrofitted or replaced with vehicles/equipment that meet current engine emission standards over the life of the program.
- What is the estimated cost associated with upgrading 50% of the private fleet within the four-county area?
    - There are reliable national numbers that capture the approximate costs associated with retrofitting on-road fleets; however, it has been a challenge to obtain cost estimates for retrofitting non-road fleets. Further, different levels of retrofit control technology carry widely differing costs.

- What are the primary pollutants of concern under the DFFRP?
    - This program is focused on the reduction of particulate matter (PM).
- How does the DFFRP relate to the current diesel program being implemented in the state of California?
    - California's programs are regulatory approaches requiring upgrades (retrofits or replacements) to the existing fleet. The DFFRP would not require upgrades by fleet owners; those upgrades would be incentivized through the program's fee structure and services and any engine upgrades would be voluntary. However, registering and paying program fees would not be voluntary for those facilities subject to the DFRRP when adopted.
- Could federal grant monies be used to pay for DFFRP staff support or would this component be 100% funded by revenues received from registration fees?
    - The Agency will use federal sources of funding to pay for staff support to the extent possible—i.e., grant monies for a particular project can pay for the staff activities associated with that project.
- Does the federal stimulus package offer any potential funding sources for the DFFRP?
    - Grants that are part of federal stimulus funds can be used to pay the capital costs for diesel retrofits; up to 15% of these grants can be used to cover the cost of administering them. The Agency and the Washington State Department of Ecology (DOE) will be applying for a portion of the stimulus funding for diesel retrofits.
- What is the estimated rate of turnover for an on-road fleet?
    - A joint fleet turnover assessment conducted by the Agency and the DOE in 2007 determined that on-road fleets within the four-county area turn over every 15-20 years. A stakeholder commented that the Snohomish County fleet turns over roughly every eleven years.
- Did any of the data used to identify facilities with on-road diesel vehicles come with total vehicle miles traveled (VMT)?
    - No. However, the Puget Sound Regional Council has available trip generation data that could possibly be used to estimate VMTs. Part of the challenge of this program is identifying who has specific fleet information such as VMT and how it can be collected. Part of what the stakeholder group will be covering is how to build a system to generate this type of information and how best to use it as part of the fee structure of the program, if at all.
- Are pass-through truck trips accounted for within the on-road data?
    - Pass-through truck trips are not accounted for within the on-road data.
- Who will pay the registration fee under the "host" design option?
    - Each hosting facility would be responsible for paying the registration fee under the host design. Under the ownership design option, facilities would pay fees related to the emissions from the vehicles and equipment they own.
- Will the registration fees under the host design option be based on a facility's employment?
    - Not directly. Employment is used as a measure of the size of a facility in the Puget Sound Regional Council model, and the size of a facility is one of the factors used in calculating the number of visits to that facility. Under a "host" model, fees could be based on the number of visits because the number of visits influences the emissions associated with the facility.
- Could the Agency collect registration fees from facilities located outside of the 4-country area but that have diesel fleets operating inside the four-county area?
    - Under the host approach, the visits those vehicles make to facilities in the 4-country area may be counted. Under the ownership approach, the Agency would not have the legal authority to register facilities outside of the four-county area.
- What is the timeframe and estimated budget needs for the DFFRP?
    - The estimated operating budget for the registration program is approximately $850,000 to $1-million annually. This estimate is based on the current Diesel Solutions program. It is important for stakeholders to remember that program costs will vary depending on the type of program services offered and staffing needs, and we are still developing those with the stakeholders. The Agency would like the program to conclude within a 10 to 15 year timeframe as emissions from diesel vehicles and equipment are reduced through fleet modernization.
- Under the host design option, if a single diesel truck visits multiple facilities on its route, will each visit be counted for each facility?

    - Yes.
- Will there be a cap on the registration fee administered under the DFFRP?
    - The Agency has the legal authority to capture revenues from owners of emitting facilities. A fee structure for the DFFRP has not yet been designed, so a cap on the registration fee could be an element for stakeholders to consider.
- Would the DFFRP apply to those facilities with diesel fleets that were fully retrofitted?
    - The specifics of a proposed fee system will be discussed during the next stakeholder group meeting on April 6, 2009.
- Is there any possibility of state and/or local funding for this program in future?
    - The agency does not anticipate any state or local funding opportunities in the foreseeable future. This is why the Agency is focusing on the DFFRP to allow it to continue offering the services of the Diesel Solutions program within its jurisdiction.
- How could the DFFRP channel funds from host facilities to smaller facilities that own diesel fleets?
    - A hosting facility, such as a terminal operator, could pay a small registration fee to get it in the program. Then, it would be asked to help communicate information about the types of programs available to retrofit trucks to the owners of vehicles that visit the host facility.
- Will the DFFRP include any programs to reward clean facilities?
    - The Agency strongly supports the idea of providing recognition to facilities that clean up their fleets and plans to have a tiered fee structure that allows cleaner facilities to pay less than other facilities.
- How will the DFFRP deal with disposal of 1994 and older diesel trucks?
    - There is no clear way of dealing with disposal of these trucks. The stakeholder group can discuss ideas about providing an incentive for disposal.

Stakeholders discussed how the host program design option may create both implementation and compliance issues. Initial concerns about the host program include that fact that it requires facilities to have substantial knowledge about the characteristics of the vehicles that visit them. A few stakeholders indicated that on first review, the ownership model seemed to be the best path forward due to its simple structure. Stakeholder discussion continued around the necessity of adding an electronic facility registration system and random audit component regardless of the program design option. Some stakeholders questioned whether the hybrid model's approach of including a small number of key hosting facilities made sense. They were comfortable with the idea of the hosts providing information about Agency retrofit programs but were not comfortable with the idea that the hosts might collect data on the vehicles that visited their facilities. One stakeholder suggested establishing a partnership program with key hosts rather than including them in the registration program.

Program Design: Focus on Non-Road

Tom Beierle and Amy Fowler provided background information on non-road diesel-powered equipment and related program design issues (see slides 30 through 32 of the program design PowerPoint presentation). They emphasized the following points:

- According to the 2005 PSCAA air emissions inventory, non-road sources account for approximately the same share of diesel emissions as on-road sources.
- There is limited equipment-specific inventory information available on non-road diesel vehicles and equipment.
- Retrofit technologies are not as readily available for non-road equipment and vehicles as they are for on-road vehicles.

Stakeholders provided the following comments and insights:

- Studies conducted by the DOE concluded that maintenance practices play a large role in emission reductions. Improved maintenance practices could be incorporated into non-road outreach efforts.
- Approximately 5% to 10% of a typical construction company fleet is likely to be over 350 horsepower.
- There is a high cost associated with retrofitting a small piece of non-road equipment with a diesel particulate filter (DPF). Ongoing maintenance fees are expensive and not feasible from a cost perspective.
- Some non-road mobile sources move around a lot (e.g., construction equipment).

- Data on the age of non-road equipment is important. One stakeholder said that the construction fleet is turning over rapidly. Another stakeholder said that rental fleets have newer equipment, and rental companies sell off equipment as it ages.
- Most non-road equipment is not titled.

Bill Ross asked the stakeholders to suggest possible sources of non-road data. The following are stakeholder responses:

- The stakeholder group should first focus on gaining an understanding of what specific non-road facilities, vehicles, or equipment to initially capture within the DFFRP and then focus on locating sources of non-road data.
- Reviewing active building permits within the four-county area may provide an understanding of the level of construction activity and what types of equipment are being used.
- Non-road equipment sales information is available from third party sources. However, there are no mechanisms in place to determine if this non-road equipment still resides within the four-county area after it is sold.

Program Services and Components

Amy Fowler, PSCAA, provided an overview of the major program components and services provided by the Agency and additional services that could potentially be offered for the DFFRP (see slides 33 through 37 of the program design PowerPoint presentation).

The stakeholders asked the following questions about program components and services:

- How will the Agency ensure ongoing maintenance and the quality assurance of retrofits after they have been installed on diesel fleets?
    - Historically, the Agency has worked with facilities to provide the necessary equipment and information to maintain retrofits. The Agency has also favored retrofit technologies that are durable and easy to maintain.
- Can facilities get a reduced cost for diesel particular filters (DPFs)?
    - State and local agencies can use the state's negotiated purchasing contracts for emission control equipment, although the state doesn't currently have a contract specifically for DPFs (they have contracts for diesel oxidation catalysts, diesel multi-stage or "flow-through" filters, and crankcase filtration systems). The Agency has a list of DPF providers for facilities to consult. Aggregate purchases may reduce the cost per DPF.
- What is the ideal target of the retrofit program (i.e. ideal age and retrofit for a truck)?
    - The intent of the DFFRP is to obtain the maximum amount of emission reductions from an engine by installing a verified retrofit without causing a maintenance issue. Late model trucks and engines are the best candidates for DPFs.
- What is the Agency's threshold for retrofits?
    - The threshold for on-road diesel vehicle retrofits has typically included model years older than 2007 for on-road diesel vehicles. A stakeholder noted that it doesn't make sense to retrofit older vehicles that are likely to be retired.
- Will the fee structure of the DFFRP be designed to charge smaller fees for newer diesel vehicles and equipment?
    - Yes.
- With the understanding that the DFFRP will accelerate the purchase of trucks meeting the 2007 standards, what are the chances that the Agency will continue the Clean Diesel program through enforcement of the 2012 and 2014 standards?
    - The Agency has clearly stated that the DFFRP is a term program that will conclude once its target has been reached.

Overview of Dynamic Fee System

Heather Rodgers, Berk & Associates, reviewed the anticipated program costs and funding issues (see slides 38 through 46 of the program design PowerPoint presentation). She emphasized the following points:

- The DFFRP will involve more facilities than are involved in the existing Diesel Solutions program.
- Program costs depend on the complexity or simplicity of the DFFRP structure (e.g. types of initial services, amount of data collected and managed, staffing needs, etc.).
- The program fee structure will be designed to cover the cost of the DFFRP.

Stakeholders had the following questions and comments:

- Will any retrofit funding under the Diesel Solutions program carry over into the DFFRP?
    - The Agency is working with funding from a grant to retrofit cargo handling equipment (CHE) at the ports. Funds from this grant may be used to continue working with the ports on CHE.
- How many diesel retrofits does the Diesel Solutions program yield annually?
    - To-date the Diesel Solutions program has completed more than 5000 retrofits over the past six years.
- How will the Agency measure the progress of the DFFRP?
    - The Agency and DOE regularly analyze data from air monitors located within the four-county region. Data from these air monitors may assist in measuring the effectiveness of the program. However, attributing improvements in air quality to the effects of one program is always challenging.
- Would it be worthwhile for the stakeholder group to consider including a "phase-in" program to help avoid early compliance problems?
    - The Agency is open to a phase-in for some types of fleets (e.g., smaller fleets), which may reduce the amount of initial program non-compliance. However, the Agency recognizes that delaying the compliance date could merely delay the non-compliance problems.
- When will the Agency need to have revenues from the DFFRP?
    - The Agency will need revenues for the program in approximately 6 to 18-months from the date of this meeting. The stakeholder group will discuss the exact commencement date of the program and how long the Diesel Solutions program can be carried on with existing funding during the April 6, 2009, stakeholder group meeting.

Stakeholders discussed what key design elements would be necessary for both a successful reporting system and fee structure under the DFFRP. Stakeholders indicated that in order to achieve a high compliance rate, facility reporting requirements should be simple and straightforward. Participants discussed having a fee structure that includes some fee for all diesel fleet facilities, regardless of the retrofit status of their fleets, but to base fees on at least three categories linked to vehicle emissions:

- Pre-1994
- Retrofitted vehicles
- 2007 and newer

Stakeholders generally agreed that the program should focus on trucks that are heavier than 10,000 pounds gross vehicle weight.

One or more stakeholders offered the following additional ideas for the fee structure and program design:

- Facilities should be able to "graduate" from the program once they have achieved some threshold of emission reductions for their fleet (e.g., 50% of the vehicles are new or retrofitted).
- The program should allow corporate entities to "roll up" all facilities in the 4-county area for streamlined reporting and fee-paying.

Wrap Up and Next Steps

Bill Ross described the key component of the program design emerging from stakeholder discussions:

- Develop a simple but effective program structure that is straightforward for the Agency to administer and for facilities to comply with.

- Register all facilities that own diesel trucks regardless of the size of their fleets
- Only include vehicles greater than 10,000 pounds gross vehicle weight in facilities' fleet emissions calculations
- Have an online registration and fee system supported by audits
- Possibly register a small number of hosting facilities with a nominal fee and use them to help channel program services to smaller fleet facilities. If further research suggests that such hosts aren't an effective way to reach smaller fleet owners, eliminate or alter this component of the program.
- Allow a "corporate roll-up" of all facilities in the 4-county area: only need to report/pay once, not for each facility
- Base facility fees on the emissions characteristics of facilities' on-road and non-road trucks and equipment.
- Design a fee structure which places higher registration fees on facilities with higher emissions (e.g., from older diesel engines). For on-road vehicles, base fees on emissions that correspond to the following categories:
    - 2007 and newer
    - Retrofitted vehicles
    - Non-retrofitted vehicles 1994 or newer
    - Non-retrofitted vehicles older than 1994
- For dynamic fees, start with smaller differential between categories and increase it over time by increasing the fees for the highest emissions category or categories
- Facilities will still pay something if all their emissions are from "clean" vehicles (for revenue stability and program tracking needs)
- Phase in small facilities (~3 years)
- Phase in non-road component of program (~3 years)
- Recognize facilities with clean fleets

In discussions, stakeholder largely agreed with these elements of program design. Additional suggestions from stakeholders included:

- The program needs to address risk in particular locations. Dennis responded that the Agency has the ability to target areas of high risk through the services provided by the Diesel Solutions program.
- The program should have a way of encouraging scrapping the highest emissions vehicles (i.e., vehicles older than 1994) rather than providing an incentive to export them outside of the 4-county area.

Bill noted that the next meeting will be on April 6, 2009, at the Puget Sound Clean Air Agency and will mainly focus on the dynamic fee structure.