

BOARD MEETING DATE: December 5, 2014

AGENDA NO. 32

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee met on Friday, November 21, 2014. Following is a summary of that meeting. The next Mobile Source Committee meeting is scheduled for Friday, January 23, 2015 at 9:00 a.m.

RECOMMENDED ACTION:
Receive and file.

Dr. Clark E. Parker, Sr., Chair
Mobile Source Committee

EC:fmt

Attendance

Committee Chair Dr. Clark E. Parker, Sr., and Committee Member Supervisor Shawn Nelson attended via videoconference. Committee Members Dr. Joseph Lyou, Mayor Judith Mitchell and Mayor Pro Tem Ben Benoit attended the meeting at the SCAQMD Diamond Bar headquarters.

The following items were presented:

ACTION ITEM:

1) Execute Contract for Marketing and Outreach Initiative for the 2015 Lawn Mower Exchange Program

Mr. Sam Atwood, Media Relations Manager, gave a brief presentation on staff's recommendation for the award of a contract for the 2015 Lawn Mower Exchange Program. An RFP was released on October 3, 2014, to solicit proposals for outreach for the 2015 Lawn Mower Exchange Program. Two proposals were received by the RFP deadline of November 5, 2014: one from Westbound Communications and the other from Sensis. The RFP review panel reviewed the two proposals and staff is recommending award of a \$75,000 contract to Westbound Communications based on the firm's overall comprehensive approach for outreach.

Mayor Mitchell commented that the staff report indicates that 2,200 lawn mowers were exchanged in 2012 and asked if more recent figures were available. Mr. Atwood showed a graph of the number of lawn mowers exchanged for each year of the program since its inception in 2003. In most years, 4,000 mowers were exchanged except in 2010 when special funding was available to provide over 9,000 mowers for exchange. There was a dip in the number of mowers exchanged in 2012 and again in 2014 with approximately 2,800 and 2,600 sold respectively in those years.

Mayor Pro Tem Benoit asked if there was a reason for the dip this last year. Mr. Atwood responded that there are a number of possible reasons including that the market for electric mowers is saturated or at least saturated in the areas where the events are located.

Mayor Mitchell asked if different venues are being considered this year and staff responded that different venues are being researched and staff is open to any recommendations on possible venues, although 2015 venues have already been tentatively selected.

Dr. Parker asked how many people have been reached with the existing outreach campaigns. Mr. Atwood responded that he can provide a recap of this year's outreach but the emphasis has been more on the partnerships and public relations efforts, primarily because advertising in the Los Angeles market is expensive and even if the full amount of the contract were committed to advertising we still would not be assured of selling 4,000 mowers.

Dr. Lyou asked how much was spent on marketing and outreach for the 2014 program and Mr. Atwood responded that the amount was \$50,000. Mayor Mitchell asked if social media would be included in the outreach. Mr. Atwood responded that it will be an integral part of the program.

[Supervisor Nelson arrived to the videoconference site at 9:04 a.m.]

Moved by Mitchell; seconded by Benoit; and unanimously approved.

INFORMATIONAL ITEMS:

2) Status of Implementation of CARB's Regulation for Marine Vessels While At-Berth

Dr. Randall Pasek, Planning & Rules Manager, provided an update on the implementation of the CARB regulation to reduce emissions from ocean-going vessels (OGV) while at-berth (commonly known as the Shore Power Regulation). The regulation was adopted by CARB in 2007 to reduce emissions from OGV while

docked by requiring certain vessels to “hook up” to landside power and turn off their auxiliary engines. The regulation also allows for use of technologies that provide equivalent emission reductions. The regulation applies to fleets that operate container, refrigerated cargo, and passenger ships and whose vessels have more than 25 annual visits at a California port except for passenger ship fleets which must comply with the regulation if their ships visit a port more than five times per year.

Vessel fleets and terminals are required to submit initial compliance plans and fleets are required to also submit annual compliance statements showing that they did comply with the regulatory requirements. The regulation requirements are phased in from 2010 to 2020 and require emission or power reductions of 10% in 2010, 25% in 2012, 50% in 2014 70% in 2017, and 80% in 2020. Fleets can choose two compliance paths – Reduced Onboard Power Generation and Equivalent Emission Reduction options. The Reduced Onboard Power Generation option requires that a fleet reduce its onboard power usage by the mandated percentage in that year as well as have the same percentage of visits where the auxiliary engines are not used. The Equivalent Emission Reduction option requires the fleet to demonstrate that the fleet’s emissions have been reduced by the mandated percentage in that year. Switching between options is allowed if certain conditions are maintained to ensure required emission reductions occur.

Currently over 200 vessels have been outfitted to receive shore power and 51 fleets have submitted compliance plans for 2014. This has resulted in approximately 2,750 shore power visits out of a total of 4,400 visits statewide. In addition shore-side infrastructure has been installed at 63 berths and 23 terminals with about half of the funding being provided by California Proposition 1B funding.

With the goal of retaining and potentially enhancing the expected emission benefits of the regulation, CARB staff is considering amendments to address the operational and technical issues encountered during the implementation of the regulation as well as considering amendments to expand the compliance accountability. Issues encountered during the implementation of the regulation include the following:

- Use of equivalent technologies – Regulation only allows those on the Equivalent Emissions Reduction Option to use equivalent technologies.
- Maximum Engine Operation Time per Visit – Under the Reduced Onboard Power Generation Option auxiliary engines can operate only three hours while the ship is at-berth to allow for transitioning to and from landside power. However, due to circumstances beyond the fleet’s control (time for customs inspection, shore-side labor to complete the hook-up, etc.), the auxiliary engines are needed and the visit will not count toward compliance.

- Compliance Reporting Period – Compliance with the reductions is required each quarter. Longer compliance periods would allow for more flexibility in meeting the requirements.
- Commissioning – Before a vessel can access shore power it must demonstrate that it can safely receive electricity from berth. This process can take several visits before the vessel can receive landside power and obtain credit for the visit.
- Redeployment – Redeployment of ships can bring non-shore power capable ships to California. Equipping them for shore power can take many months.
- Berth Availability – The fleet operator may not have control over the berth assignments and may be required to berth where shore power connections are not available.

CARB staff is also considering exploring enhancing the emission reductions from the regulation through the use of new technologies, inclusion of additional fleet types and additional ports. CARB staff is currently taking comments on potential concepts and will hold an additional public workshop in the first quarter of 2015.

SCAQMD staff has commented on the need to ensure the emission reductions are maintained and to consider deployment of additional technologies to further reduce emissions. Staff will continue to provide comments as the amendments are developed.

Staff concluded with an update on the status of at-berth emissions collection and treatment technologies. Two companies, Advanced Control Technologies Inc. (ACTI) and Clean Air Engineering-Maritime, have developed barge-based emissions collection and control systems that can be moved next to the ships while at-berth or at anchorage and attach a collection pipe to the exhaust of the auxiliary engines. The engine exhaust is piped to a cleaning system that removes over 90% of the emissions from the engines. Both systems are in CARB's verification process and should be verified in the first half of 2015 where they will be able to be used as an alternative technology to comply with the Shore Power Regulation.

Dr. Parker asked if the fleets had complied with the reduction requirements. Staff responded that they had and explained that both compliance paths had requirements in the regulation to ensure that these reductions were realized. Dr. Parker inquired as to whether these emission reductions are considered and included in SCAQMD's proposed Port Backstop Rule. Staff responded that the concept of the backstop rule was to ensure that the reductions expected by CARB's regulation and emission reductions from other port-related source emissions are achieved. The expected emission reductions are included in the 2012 AQMP and the State Implementation Plan (SIP). If the Shore Power regulation emission reductions were not achieved, the

Ports would be required to implement actions to make up for the emission reductions foregone through other methods, such as deployment of the emissions collection and control systems discussed earlier.

Dr. Parker asked what fraction of the total OGV fleet is subject to the regulation. Staff indicated that currently about 65% of the visits to the affected ports are subject to the requirements of the regulation and that fraction is expected to grow to about 90% in 2032 such that the majority of the vessels visiting will be subject to the requirements of the regulation. However, some vessel types such as tankers are not included in the regulation and staff believes that additional reductions are available if these vessel types were included in the regulation or were required to use alternative technologies such as the emissions collection and control systems.

Mayor Mitchell asked if all the vessels in the fleet had to meet the requirements of the regulation. Staff responded that it was a fleet average which gives the fleets the control flexibility. Mayor Mitchell then asked for additional clarification on the two compliance pathways. Staff explained that the Equivalent Emission Reduction Option requires that the fleets reduce their emissions by the required percentage in that year. The Reduced Onboard Power Generation Option requires the appropriate percentage reduction in onboard power as well as the same percentage of qualifying visits. This would result in emission reductions equal to percentage required in the year.

Dr. Lyou asked whether additional reductions beyond those achieved in the current regulation, that staff believes are available through implementation of new alternative technologies, would be included in the SIP; and whether SCAQMD staff was working with CARB staff to ensure these additional reductions would be realized as part of the amendment process. Staff responded that CARB would bring those additional reductions forward as part of their overall mobile source strategy in the development of the next AQMP.

Dr. Lyou inquired about the shore power system at the BP ARCO tanker berths and asked whether this technology was considered feasible and commercially available and if so, could staff work with CARB staff to require other tankers to utilize shore power as well. Staff stated that the technology is technologically feasible and commercially available, but is not required as it was judged too costly at the time of adoption of the regulation. However, staff believes there are ways to amend the regulation to incentivize the use of this technology at other tanker berths and will work with CARB staff in developing the rule language.

Dr. Lyou then inquired as to whether there were additional vessel types that could be controlled in the remaining one-third of the fleet that was not subject to the regulation. Staff responded that with the alternative technologies being developed, most or all of

the other vessels could be controlled. Dr. Lyou also asked for verification that boilers contributed about 18% of the total emissions of NOx from the OGV visiting our ports and if so, whether alternative emissions control systems that could control boiler emissions should be a high priority. Staff stated that this was correct and that currently they contribute about 10% of the total NOx emissions but would go up to the 18% he quoted as the shore power regulation became fully implemented.

Dr. Lyou then noted that fleets have proposed that CARB staff consider amendments to give them more time to hook up to landside power, to use credits between fleets on a port-wide basis, and pursue other options that could ultimately reduce the emission reductions expected from the regulation. Staff responded that the fleets had raised these issues at CARB's workshop and that CARB staff had stated several times that the emission reductions expected had to remain whole. In addition, SCAQMD staff at the workshop had stated the expected reductions at the very least must remain the same and that CARB staff should look at ways to achieve additional reductions. Dr. Lyou noted that ACTI had completed their verification required emissions tests and operating hours and was planning to submit the required verification report to CARB in a few weeks, and asked if there was anything we could do to ensure that their review moved forward as quickly as possible. Staff stated that they have been working with CARB and ACTI staff since the early stages of the development of the testing requirements and have a strong working relationship with both ACTI and CARB staff. Staff will continue to have frequent dialogues with CARB and ACTI staff to ensure the process moves smoothly.

Dr. Parker then requested that staff look at the amount of emissions created generating the electricity required by the shore power regulation to ensure that the emission reductions at the ships were not being offset or made worse by the electricity generation emissions. Staff responded that CARB staff did have estimates of energy consumption associated with the 2007 rulemaking. However, that was data from 2007 and there are actual usage data available to estimate potential emissions from the electricity generation. Staff will work with CARB staff to ensure that this information is included in their amendment process. Staff also explained that electricity generation in the Basin is much cleaner than the rest of the nation and studies done where electrical power generated in the Basin is used to reduce diesel engine emissions typically show better than a 90% emission reduction benefit.

Mayor Pro Tem Benoit asked what fraction of the berths are equipped with shore power. Staff responded that most of the berths needed to supply shore power have been equipped. In addition some ports not included in the regulation have also been equipped with shore power with funding assistance from Proposition 1B funds and should more berths require shore power infrastructure, Carl Moyer funding may be available. Staff also indicated that with the alternative control technologies soon to be available, basically all berths could be covered.

Ms. Susan Stark, representing Tesoro (formerly BP ARCO), stated that BP ARCO was interested in obtaining credits from using shore power at their tanker berths. Ms. Stark noted that the SCAQMD still has a proposed rule development on the rule forecast calendar and suggested that staff might want to consider moving forward on the rule development.

3) Overview of Port of Long Beach Middle Harbor Project

Dr. Matt Miyasato, Deputy Executive Officer/Science & Technology Advancement, provided a report on the Middle Harbor Redevelopment Project at the Port of Long Beach. Dr. Miyasato added that SCAQMD staff recently toured the facilities. The nine-year, \$1.3 billion project will expand the area of the existing terminal to 305 acres, and it is planned to be a green, technologically-advanced terminal.

Dr. Parker asked about the total electricity required by the terminal and the cost and lifetime for the batteries in the electric yard hostlers. Staff did not know the specifics and committed to follow-up with the Long Beach Container Facility to get the information.

WRITTEN REPORTS:

4) Rule 2202 Activity Report

The report was received as submitted.

5) Monthly Report on Environmental Justice Initiatives – CEQA Document Commenting Update

The report was received as submitted.

OTHER BUSINESS:

None

PUBLIC COMMENT:

None

The meeting was adjourned at 10:12 a.m.

Attachment

Attendance Roster

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MOBILE SOURCE COMMITTEE MEETING
Attendance Roster- November 21, 2014**

NAME	AFFILIATION
Dr. Clark E. Parker, Sr.	SCAQMD Governing Board (<i>via videoconference</i>)
Dr. Joseph Lyou	SCAQMD Governing Board
Mayor Pro Tem Ben Benoit	SCAQMD Governing Board
Mayor Judith Mitchell	SCAQMD Governing Board
Supervisor Shawn Nelson	SCAQMD Governing Board (<i>via videoconference</i>)
David Rothbart	Los Angeles County Sanitation Districts
Curtis Coleman	Southern California Air Quality Alliance
Lee Wallace	Southern California Gas/San Diego Gas & Electric
Susan Stark	Tesoro
Bill Pearce	Boeing
Elaine Chang	SCAQMD Staff
Barbara Baird	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Henry Hogo	SCAQMD Staff
Peter Greenwald	SCAQMD Staff
Fred Minassian	SCAQMD Staff
Randall Pasek	SCAQMD Staff
Sam Atwood	SCAQMD Staff
Dean Saito	SCAQMD Staff
Jillian Baker	SCAQMD Staff