BOARD MEETING DATE: April 4, 2014 AGENDA NO. 21

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee met Friday, March 21, 2014 Following is a summary of that meeting.

RECOMMENDED ACTION:
Receive and file.

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

EC:fmt

Attendance

Dr. Parker, *(via videoconference)*, called the meeting to order at 9:02 a.m. Dr. Joseph Lyou was present at SCAQMD headquarters. Mayor Pro Tem Ben Benoit and Supervisor Shawn Nelson *(arrived at 9:21a.m.)* were present via videoconference.

The following items were presented:

INFORMATIONAL ITEMS:

1) Report on U.S. EPA Tier 3 Motor Vehicle Emission and Fuel Standards

Mr. Henry Hogo, Assistant Deputy Executive Officer/Science & Technology Advancement, provided an overview of the new U.S. EPA emission standards for light- and medium-duty vehicles and new sulfur content limits for gasoline fuel. The new standards, which were finalized on March 3, 2014, will require new passenger cars, light- and medium duty trucks, and sports utility vehicles produced beginning 2017 to meet more stringent emission standards. In addition, the sulfur content limit of gasoline fuel would be lowered from 30 ppm to 10 ppm. The U.S. EPA emission standards are generally consistent with the California Low Emission Vehicle (LEV) III Program (adopted by CARB in January 2012).

The new emission standards would reduce hydrocarbon and NOx tailpipe emissions by 80% from the current standards; per vehicle PM emissions by 70% from current standards; and evaporative emissions by 50%. Overall, it is projected that emissions will be reduced by 21% for hydrocarbons and NOx, with a 10% to 30% reduction in air toxics.

There is a combined set of hydrocarbon plus NOx emission standards starting at 86 mg/mi (milligrams/mile) in 2017 decreasing to 30 mg/mi for model years 2025 and later. The standards apply to passenger cars and light-duty trucks with weight classifications up to 3,750 lbs. For vehicles weighing 3,751 lbs to 10,000 lbs, the combined hydrocarbon plus NOx standards start at 101 mg/mi in 2017 and drop to 30 mg/mi for model years 2025 and later. In addition to the standards, there is a phase-in period for compliant vehicles.

Relative to PM emissions, the new regulations establish a 3 mg/mi standard for all vehicles produced from model year 2017 to 2025 and later. In addition, an in-use emissions standard of 6 mg/mi is established for model years 2017 to 2021, which drops to 3 mg/mi beginning in 2022. As with the hydrocarbon plus NOx standards, there is a phase-in schedule for production of compliant vehicles.

Staff discussed the two key differences between the national standards and the California LEV III Regulation. The first is the starting year of the national standard beginning in 2017 compared to 2015 for the LEV III Regulation. The second difference is the inclusion in the LEV III Regulation of a 1 mg/mi PM emissions standard beginning in 2025 with a four-year phase-in to 2028.

Given that the national standards and the California LEV III Regulation are harmonized in the 2017 to 2025 timeframe, the national regulation does not significantly impact vehicles sold in California. However, given the greater number of cleaner vehicles under the federal standards, there will be benefits to California relative to out-of-state registered vehicles entering California. The U.S. EPA estimated that the national regulations will result in around 900 tons/day of NOx emission reductions; around 459 tons/day of VOC emission reductions; and 21.6 tons/day of PM reductions.

Dr. Lyou asked whether there are more than just the lower sulfur limit in gasoline fuel, but will technology advancements be needed to reach lower the lower limit. Staff indicated that the regulation applies only to the sulfur content limit in gasoline fuel and a regulation has been in place for several years in California. A second question was asked as to how much easier it will be for the region to reach attainment. Staff indicated that the U.S. EPA regulations have already been accounted for in the current plans. However, the emissions estimates for out-of-state vehicles will be revised as part of the 2016 AQMP to reflect the cleaner vehicles.

Dr. Parker asked how much of the pollution is attributed to vehicles coming into the region versus vehicles residing in the region. Staff indicated that relative to passenger cars and smaller trucks, it has been estimated that around 20 to 30

percent of the vehicles are from out-of-state. [*Clarification Note: the 20 to 30 percent contribution estimate is the vehicle miles travelled or VMT estimated contribution to the total VMT in the region rather than the number of vehicles.*] Relative to heavy-duty trucks, a similar estimate of 20 to 30 percent of the total VMT is attributed to out-of-state trucks entering California.

A comment was made that with implementation of the U.S. EPA rules, it will help the region to some extent. Staff noted that it will help. In addition, staff indicated that it will not only help the region relative to emission reductions, but also levels the playing field relative to the cost per operator and increases the number of vehicles getting economies of scale relative to having both the national and state regulations to be similar.

Dr. Parker expressed concern regarding truckers fueling outside of California before entering California leading to the use of less cleaner fuels in California. Staff indicated that the federal Clean Air Act recognizes the uniqueness of California's air quality problems and provides a mechanism for California to lead the way for ultimate federal control of mobile sources. CARB has the ability to adopt motor vehicle standards. Other states can adopt the California standards in total (other states are not allowed to choose portions of California's regulation). Congress envisioned that California would be the "proven ground" for new controls and adopt new regulations. The federal government would then pursue national regulations later. Staff noted that this process has worked for the last 30 to 40 years. However, more recently, California and the federal government have been working together to establish national standards relative to greenhouse gases that are implemented consistently throughout the United States. Relative to the refueling outside of California concern, staff indicated that it was California that first adopted the lower sulfur limits and the federal government followed suit.

Supervisor Nelson left at 9:37 a.m. and returned at 10:00 a.m.

2) Report on CARB Proposed Amendments to the Statewide Truck and Bus Regulation

Mr. Hogo provided an overview of the proposed amendments to the Statewide Truck and Bus Regulation released for public comment on March 5, 2014. NOx emissions from on-road heavy-duty vehicles are the largest source of emissions contributing to the annual $PM_{2.5}$ and 8-hr ozone air quality problem in the South Coast Air Basin. The Statewide Truck and Bus Regulation adopted by CARB in 2008 and amended in 2010, provides significant NOx and PM emission reductions to help meet the annual $PM_{2.5}$ and 8-hr ozone ambient air quality standards. The regulations requires all fleets with one or more heavy-duty truck to either install particulate filters on existing trucks beginning in 2012 or upgrade to 2010 or newer engines. Specifically, for heavy-duty trucks with gross vehicle weight ratings (GVWR) from 14,001 lbs to 26,000 lbs, the engines must be upgraded to

2010 or newer engines on a schedule beginning in 2015 through 2023. For heavy-duty trucks with greater than 26,000 lbs GVWR, certain models must be retrofitted with particulate filters beginning in 2012 and eventually upgraded to 2010 or newer engines beginning in 2020. There are extended compliance deadlines for fleets with three or less trucks and phase-in compliance for larger fleets.

In addition, the Truck and Bus Regulation provides compliance flexibility for four categories of heavy-duty vehicles: low-use agricultural trucks, low-use mileage construction trucks, low-use trucks (with less than 1,000 miles/yr or 100 hours of stationary work), and logging trucks. In addition, trucks operating exclusively in certain "NOx exempt" areas (areas in attainment of air quality standards) have longer compliance schedules.

To-date, CARB estimates that of the approximately 260,000 trucks subject to the early provisions (2012 to 2014 timeframe), 136,000 have complied with the PM provisions either through PM retrofits or vehicle replacement. Another 68,000 have taken advantage of flexibilities provided to comply at a later date (either through credits or exemptions. However, around 20,000 trucks have not complied by January 1, 2014. Of the 20,000 trucks, 15,000 are owned by small fleets. Many have made good faith efforts to comply, but simply have not. In addition, although funding assistance is available, many of the owners cannot access the funding.

On March 5, 2014, the CARB staff proposed a set of amendments to provide additional relief and compliance flexibility to small fleets and extended the timeframe for compliance of low-use and low-mileage vehicles. Five general amendments are proposed.

The first proposed amendment would allow additional time for small fleets operating in nonattainment areas to comply with the regulation. Specifically, compliance for the second truck would be extended to 2016 and the third truck to 2018. The extension would result in potential emission reductions foregone between 2015 to 2018. However, the time extension allows owner/operators to access funding assistance opportunities.

The second proposed amendment waives particulate filter retrofits for up to three vehicles if vehicles are upgraded to 2010 or newer engines by 2018. Eligible vehicles must have been denied a loan after July 1, 2013. The extension would result in potential emission reductions foregone between 2015 to 2018. However, the time extension allows owner/operators to access funding assistance opportunities.

The third set of proposed amendments is for low-use vehicles. The first of these amendments broadens the definition of low-use construction truck to include all low-use trucks that operate less than 20,000 miles/yr with a phase-in period for particulate filter retrofits from 2015 to 2018. The second amendment would increase the "low-mileage" truck mile limit from 1,000 miles/yr to 5,000 miles/yr. Low-mileage trucks would begin compliance beginning 2020. The third amendment would smooth the phase-in compliance for agricultural trucks. Agricultural trucks operating less than 15,000 miles/yr will begin compliance in 2020 and trucks operating less than 10,000 miles/yr would begin compliance in 2023. In addition, livestock cattle trucks would be included in the agricultural "specialty" extension. The fourth amendment allows more time for engines used to power heavy cranes to upgrade to 2010 or newer engines at a rate of 10% per year beginning in 2018 with full compliance by 2027. The last of this set of amendments relate to lighter heavy-duty trucks that are less than 26,000 lbs GVWR. These vehicles are proposed to follow the new compliance schedules proposed for vehicles operating exclusively NOx exempt areas or the new compliance schedules for low-use work trucks if the vehicles operate in nonattainment areas. Staff indicated that this set of proposed amendments would allow older work trucks to operate until 2020 or later in the South Coast Air Basin. Potential impacts from agricultural trucks would be much smaller in the South Coast Air Basin.

In addition to the above proposed amendments, CARB staff proposes additional compliance flexibility for early actions taken by fleets prior to January 1, 2014. For those vehicles that have been retrofitted with particulate filters prior to January 1, 2014, the requirement for the replacement of these vehicles with 2010 or newer engines would be extended from 2020 to 2023. The proposed amendments include extending the use of credits with the particulate filter phase-in option to 2018. Such credits were generated as a result of early particulate filter retrofits, replacement of equipment equipped with particulate filters (such as a 2007 or newer vehicle), or fleet downsizing. In addition, credit extensions are proposed to fleets that purchased alternative fueled vehicles (extension to 2018) or advanced technology vehicles (extension to 2020). Lastly, there would be extended compliance for those vehicles that have installed a particulate filter, but the filter was recalled.

Mr. Hogo provided the NOx and $PM_{2.5}$ emissions impacts of the proposed amendments compared to the current regulation and the baseline emissions without the regulation. The 2010 baseline emissions for NOx and $PM_{2.5}$ are around 155 and 5.3 tons/day, respectively. The NOx and $PM_{2.5}$ emissions in 2023 without the regulation are projected to be around 83 and 2.3 tons/day, respectively. With full implementation of the regulation, the NOx and $PM_{2.5}$ emissions are

estimated to be 47 and 1.4 tons/day, respectively or 57% reduction in NOx emissions and 67% reduction in $PM_{2.5}$ emissions.

The emissions benefits from the proposed amendments compared to the current regulation are similar in 2014 and from 2018 to 2023. However, there are emission reductions foregone in the 2015 to 2018 timeframe as a result of the proposed amendments. Staff's evaluation of the proposed amendments and emissions impacts indicate that the proposed amendments to extend compliance for the second and third truck in a small fleet contribute a large fraction of the difference in emissions reductions foregone.

Staff indicated that the initial recommended position from staff is supportive of the proposed amendments given the economic situation of many of the fleet operators. At the same time, there is a need to identify ways to offset the emission differences in the 2015 to 2018 timeframe either through "strategic" use of funding or other actions CARB could take to offset the differences.

Staff provided some actions that could potentially help offset the emission reductions foregone. These actions include potential incentives funding including the CARB AB 118 Loan Assistance Program, Hybrid Vehicle Voucher Incentives Program, Proposition 1B, and the Carl Moyer Truck Voucher Incentives Program.

Staff indicated that the proposed amendments are scheduled to be considered by the CARB Board on April 24, 2014. Staff will continue to work with CARB staff to discuss the need to recognize the emission reductions foregone and identify opportunities to further reduce emissions in the 2015 to 2018 timeframe.

Dr. Lyou commented regarding the graphs that show the emissions baseline and the emissions benefits with implementation of the existing regulation compared to the emissions benefits associated with the proposed amendments. Dr. Lyou indicated that as part of the 2016 AQMP development, that a similar graph be developed showing all emission sources and the overall emission reductions along with a line showing what the emissions level will be in order to reach attainment.

A question was asked on the definition of a "construction" truck. Staff indicated it is a truck owned by a construction firm.

Dr. Parker asked a question regarding the comment made by staff that the regulation affects almost one million heavy-duty diesel trucks in the State and there are around 200,000 trucks operating in the South Coast Air Basin. There seems to be more trucks operating in the South Coast Air Basin compared to Northern California. If this is case and the region has 40 percent of the population and the majority of the goods move through the Southern California region, Dr.

Parker expressed concerns that if these numbers are used to determine allocation of funding that the region will not receive its fair share of funding needed to clean up the vehicles. Staff indicated that they will take another look at the information. [*Subsequent to the meeting, staff revisited the information provided by CARB in its 2010 rulemaking. CARB indicated that of the nearly one million vehicles around 400,000 operate almost exclusively in California. The other 600,000 trucks are from outside of California. The 2010 CARB staff report indicates that the 600,000 trucks contribute around 20 percent of the total VMT associated with heavy-duty trucks.*]

There were discussions among the Committee members and staff regarding the economic situation of small fleet operators and their ability to comply with the regulation. A question was asked about whether CARB provides assistance on what compliance pathways would be best for them. Staff indicated that CARB has a separate hotline to assist affected fleets and at times, refer fleet operators to the SCAQMD funding programs. Mayor Pro Tem Benoit expressed the need to look for additional ways to help small fleet operators.

3) Joint Agency Recommendation Regarding Air Quality for National Freight Advisory Committee

Mr. Peter Greenwald, Senior Policy Advisor, presented the draft joint agency recommendations regarding air quality for the National Freight Advisory Committee (NFAC). NFAC is charged under the federal surface transportation law, MAP-21, with developing recommendations for a national freight strategy. Staff of regional and county agencies in Southern California, including the ports, SCAG, OCTA, LA Metro, RCTC, SANBAG and SCAQMD, are seeking to prepare joint recommendations to NFAC. SCAQMD staff, with input from the above agencies, has prepared draft recommendations relating to air quality for inclusion in the joint recommendations. Mr. Greenwald presented the draft recommendations to the Mobile Source Committee for information and committee input. In general, the draft air quality recommendations seek federal funding and policy support for—

- programs to improve operational efficiency of freight movement,
- development, demonstration and deployment of advanced clean transport technologies,
- infrastructure that enables or incentivizes the use of advanced clean technologies (e.g. fueling and charging), and
- reduction of emissions from “federal” sources, e.g. oceangoing vessels and locomotives.

In response to Dr. Lyou’s question about whether there are opportunities to offer incentive programs to fleets, Mr. Greenwald responded that incentives for the deployment of vehicles are proposed and that fleet vehicles are a key component.

Dr. Wallerstein also noted that at the March 2014 Board meeting staff recommended to support and recommend amendments to H.R. 3963 (Huffman), which would encourage cleaner vehicles and reduce emissions for the United States Postal Service fleet. In addition, the SCAQMD Legislative Committee at its March 2014 meeting took a support position on another federal bill that seeks to improve fuel efficiency of the U.S. fleet. Dr. Lyou asked how the California Department of Transportation (Caltrans) process fits into the federal process. Mr. Greenwald stated that MAP-21encourages states to adopt freight transportation plans, and that through the California Freight Advisory Committee California is developing a plan. Dr. Lyou also asked whether the State plan will be incorporated into MAP-21. Mr. Marc Carrel, Program Supervisor/Legislative & Public Affairs, explained that MAP-21 created the NFAC, which is an advisory committee on freight issues that will provide advice and recommendations to the Secretary of Transportation on matters related to freight transportation in the United States. At the same time, states are urged to create their own freight advisory committees and adopt their own State Freight Plan. There are certain incentives to the states for developing a State Freight Plan, as proposed projects may receive a greater share of funding. However, there is no requirement that the recommendations in the state plan be used in developing the National Freight Network.

Dr. Parker inquired about the percentage of dollars that the federal government contributes towards building infrastructure for fuel cell stations throughout the United States. Dr. Matt Miyasato, Deputy Executive Officer/Science & Technology Advancement, stated that the federal government contributes very little funding toward hydrogen fueling infrastructure. Dr. Miyasato also commented that the federal government has contributed towards some of the stations in Southern California; however, there is no existing long-term program. The federal government typically invests in research & development or other basic science-type activities rather than implementation. Dr. Wallerstein further explained that most of the funding is currently coming through the California Energy Commission's AB 118 program. Dr. Parker recommended that staff initiate the debate regarding the need to increase fuel efficiency and infrastructure availability to encourage the use of zero- and near-zero emission vehicles. Mayor Pro Tem Benoit commented on the need to expand the infrastructure for zero- and near-zero emission vehicles, thereby making it more convenient for the consumer. Supervisor Nelson commented that part of the attraction for consumers that purchase low-emission and energy-efficient vehicles is the access to carpool lanes; however, there are current efforts underway to restrict those vehicles from using high-occupancy vehicle (HOV) lanes when existing carpool lanes are converted to toll lanes. Supervisor Nelson believes that such disincentives would hinder the growth of energy-efficient vehicle ownership.

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:

Supervisor Nelson recommended that the Legislative Committee closely monitor efforts by the transit agencies to eliminate low emission or zero emission vehicles from HOV lanes. Dr. Wallerstein stated that this issue will be agendized for discussion at a future Legislative Committee meeting.

PUBLIC COMMENT:

None

The meeting was adjourned at 10:19 a.m.

Attachment

Attendance Roster

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

NAME		AFFILIATION
Chair Dr. Clark E. Parker, Sr.		SCAQMD Governing Board *(via videoconference)*
Vice Chair Dr. Joseph Lyou		SCAQMD Governing Board
Committee Member Ben Benoit		SCAQMD Governing Board *(via videoconference)*
Committee Member Shawn Nelson		SCAQMD Governing Board *(via videoconference)*
David Rothbart		Los Angeles County Sanitation Districts
Susan Stark		Tesoro
Curtis Coleman		So California Air Quality Alliance
Daniel McGivney		So Cal Gas Company
Lee Wallace		So Cal Gas Company/San Diego Gas & Electric
Susan Stark		Tesoro
Barry Wallerstein		SCAQMD Staff
Elaine Chang		SCAQMD Staff
Philip Fine		SCAQMD Staff
Barbara Baird		SCAQMD Staff
Henry Hogo		SCAQMD Staff
Peter Greenwald		SCAQMD Staff
Laki Tisopulos		SCAQMD Staff
Marc Carrel		SCAQMD Staff
Joe Cassmassi		SCAQMD Staff
Dean Saito		SCAQMD Staff
Randall Pasek		SCAQMD Staff
Carol Gomez		SCAQMD Staff
Sam Atwood		SCAQMD Staff
Patti Whiting		SCAQMD Staff
Kim White		SCAQMD Staff