

BOARD MEETING DATE: December 7, 2018

AGENDA NO. 25

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a meeting on Friday, November 16, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Joe Buscaino, Chair
Technology Committee

MMM:pmk

Committee Members

Present: Council Member Joe Buscaino/Chair (videoconference/arrived at 12:02 pm)
Mayor Larry McCallon
Supervisor V. Manuel Perez (videoconference)
Council Member Dwight Robinson
Supervisor Hilda L. Solis (videoconference/arrived at 12:07 pm)

Absent: Mayor Pro Tem Judith Mitchell

Call to Order

Council Member Dwight Robinson called the meeting to order at 12:00 pm as Council Member Buscaino indicated he may be running late.

ACTION ITEMS:

1. Conduct Emissions Study on Use of Alternative Diesel Blends in Off-Road Heavy-Duty Engines and Amend SOON Provision Awards

CARB has committed to adopting a low emission diesel measure in the State Implementation Plan to reduce NOx and particulate matter (PM) emissions from on-road and off-road vehicles. Renewable diesel and biodiesel with NOx-mitigating additives show a potential for reductions up to 13 percent in NOx and 30 percent in PM. CARB is currently contributing \$932,499 in a \$1,353,499 study by the University

of California Riverside (UCR) CE-CERT testing on- and off-road diesel engines on a wide matrix of test fuels. Additional cost-share is proposed for this comprehensive study as follows: SCAQMD, \$261,000; U.S. EPA, \$150,000; and San Joaquin Valley Air Pollution Control District, \$10,000. This action is to execute a contract with UCR CE-CERT in an amount not to exceed \$261,000 from the Clean Fuels Program Fund (31). In addition, in November 2017 and September 2018, the Board approved SOON Provision awards. This action is to also amend awards under the SOON Provision.

Moved by Robinson; seconded by Perez; unanimously approved.

Ayes: Buscaino, McCallon, Perez, Robinson and Solis

Noes: None

Absent: Mitchell

2. Develop and Demonstrate Near-Zero and Zero Emissions Vehicles and Equipment at Ports

The Port of Long Beach and its project partners have received \$50,000,000 in funding and the Port of Los Angeles and its project partners have received \$41,122,260 under CARB's Low Carbon Transportation Investments grant solicitation to demonstrate near-zero and zero emissions on-road, off-road and marine vehicles and equipment, including battery electric and hydrogen fuel cell trucks and supporting infrastructure. Total anticipated projects costs are \$102,998,742 and \$82,547,024 for the Ports of Long Beach and Los Angeles, respectively. This action is to execute contracts from the Clean Fuels Program Fund (31) with the Port of Long Beach in an amount not to exceed \$500,000 and the Port of Los Angeles in an amount not to exceed \$1,000,000 for SCAQMD's project cost-share.

Council Member Robinson recused himself from this item and left the room because of a financial interest in Total Transportation Services which is materially affected by this item.

Principal Deputy District Counsel Veera Tyagi read the following statement: We are seeking approval of this item pending a decision regarding the necessity of obtaining campaign contribution disclosure forms from certain project partners.

Moved by Solis; seconded by McCallon; unanimously approved.

Ayes: Buscaino, McCallon, Perez, and Solis

Noes: None

Recused: Robinson

Absent: Mitchell

INFORMATION ONLY ITEM

3. Using Unmanned Aerial Vehicles for Air Monitoring Applications (*presentation only*)

In recent years, there have been significant advances in the technology, performance, and affordability of commercially available Unmanned Aerial Vehicles (UAVs). Although safety and privacy issues have still not been fully addressed by policy makers, the civilian and commercial UAV market in the United States is rapidly expanding. These systems provide a versatile platform for a wide variety of environmental applications including air pollution monitoring. Currently, the commercial use of UAVs is limited by their relatively short flight time, their low carrying capacity, and other technical and FAA restriction issues. However, the use of UAVs could soon become viable tools to monitor air quality over large areas. This presentation discussed the current status of UAVs, important regulations limiting the wide deployment of this technology, and the possibility of using drones to augment SCAQMD's monitoring and emergency response capabilities.

Supervisor Solis asked a question related to potential privacy issues the SCAQMD should be aware of if deciding to start using drone technology for air pollution monitoring. General Counsel Bayron Gilchrist added that drones will be used in open areas where privacy issues are not likely, but this is an area that is continuing to evolve. Mr. Gilchrist added that there are no rights to privacy regarding solely air pollutants being measured by drones.

Council Member Buscaino asked if SCAQMD is interested in using drone technology for enforcement purposes. Staff replied that our main interest is learning more about the technology and its applications and limitations.

Supervisor Perez inquired about how long a drone would have to operate to fully characterize air pollution in the Salton Sea. Staff stated the flight time is limited for most commercially available drones, but even 30 minutes to one hour of measurements over the Salton Sea would probably be enough to characterize air pollution in that area.

Mayor McCallon inquired about the maximum distance of operation for drones. Staff explained that under FAA rules drones have to be operated within the visual-line-of-sight (probably close to two miles in most environments).

Council Member Robinson commented on "geo-fencing" and ways to minimize the risks associated with flying drones around the ports and industrial facilities, and on the importance of conducting periodic visual inspections for small businesses.

Mayor McCallon also commented on the importance of knowing the coordinates of a flying drone at all times.

Supervisor Solis emphasized the importance of informing and educating the community on future plans to use drones for air pollution monitoring in the Basin.

Council Member Buscaino asked what the timeline would be for a technology demonstration project RFP involving the use of sensors and drones. Staff replied that something could be ready within the next three to six months.

Alex Spataru (who runs a green technology transfer company) stated that he is working with a Danish company called Explicit that operates drone-based technology to identify ships that do not comply with exiting sulfur fuel rules. He also stated that there may be hundreds of marine vessels in the Port of Los Angeles and Long Beach that are likely to violate CARB's existing sulfur fuel rule. In his opinion using drones to identify ships that are in violation of this rule will result in substantial air quality benefits for the community.

Susan Stark (Marathon Petroleum Company) commented on the fact that refineries are already watching out for drones flying above their property for safety reasons, and encouraged the SCAQMD to coordinate future drone-related activities with facilities.

OTHER MATTERS:

8. Other Business

There was no other business.

9. Public Comment Period

There were no public comments.

10. Next Meeting Date

The next regular Technology Committee meeting is scheduled for Friday, January 18, 2019 at noon.

Adjournment

The meeting adjourned at 12:40 p.m.

Attachment

Attendance Record

ATTACHMENT

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT TECHNOLOGY COMMITTEE MEETING Attendance Record – November 16, 2018

Council Member Joe Buscaino (videoconference) SCAQMD Board Member
Mayor Larry McCallon SCAQMD Board Member
Supervisor V. Manuel Perez (videoconference) SCAQMD Board Member
Council Member Dwight Robinson SCAQMD Board Member
Supervisor Hilda L. Solis (videoconference) SCAQMD Board Member

David Czamanske Board Consultant (Cacciotti)
Guillermo Gonzalez Board Consultant (Perez)

Susan Stark Marathon Petroleum Company

Naveen Berry SCAQMD Staff
Patrick Chandler SCAQMD Staff
Philip Fine SCAQMD Staff
Bayron Gilchrist SCAQMD Staff
Pat Krayser SCAQMD Staff
Jason Low SCAQMD Staff
Lisa Mirisola SCAQMD Staff
Matt Miyasato SCAQMD Staff
Wayne Nastri SCAQMD Staff
Andrea Polidori SCAQMD Staff
Cynthia Snyder SCAQMD Staff
Veronica Sosa SCAQMD Staff
Veera Tyagi SCAQMD Staff
Vicki White SCAQMD Staff
Robert Wimmer SCAQMD Staff
Paul Wright SCAQMD Staff