



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SCIENTIFIC, TECHNICAL & MODELING PEER REVIEW GROUP MEETING MINUTES

Thursday, August 20, 2020
10:00 am

1. Welcome and Introduction

Notice having been duly given, the Scientific, Technical, Modeling, and Peer Review Advisory Group Meeting was conducted remotely via video conferencing and telephone. Zorik Pirveysian and Sarah Rees welcomed all attendees to the meeting.

2. Updates on Modeling Framework and Emissions Inventory

Sang-Mi Lee presented this item. The presentation is available online at:
http://www.aqmd.gov/docs/default-source/GB-Committees/stmpr-presentation-081320_pmf_sl-rm.pdf?sfvrsn=12

Pablo Saide Peralta wondered why staff used CMAQ v5.0.2 instead of CMAQ v5.3. Sang-Mi Lee noted that this was to maintain consistency with the 2016 AQMP. She also said that staff is testing a new CMAQ version that will be used for the 2022 AQMP. Ralph Morris reiterated Pablo Saide Peralta's comments and inquired why MEGAN3 was used.

Sang-Mi Lee responded that staff is testing MEGAN3.1 and that work was underway before the final version of the model was released.

Ralph Morris stated that soil NO_x emissions are much greater in MEGAN3.1.

John Cho asked the comparison of EMFAC2017 vs. EMFAC2014.

Sang-Mi Lee responded that the largest difference in NO_x emissions is driven by truck emission factors.

Tom Williams asked whether presentation slides will be made available. He also noted that the scale on a graph was changed.

Sang-Mi Lee noted that the presentation was posted online in advance.

Lakshmi Jayaram inquired regarding the 50% decrease in heavy duty vehicle NO_x emissions in 2023.

Sang-Mi Lee responded that the difference is driven by EMFAC2017 compared to the EMFAC2014 which was used in the 2016 AQMP emissions inventory, as well as additional regulations that are phasing in to reduce NOx emissions from trucks. Upcoming regulations will result in further reductions.

Zorik Pirveysian responded that the Truck and Bus Regulation has a major impact on the category.

Mark Abramowitz inquired why state standards were omitted from the presentation.

Sang-Mi Lee responded that the Plan is specifically addressing the federal standard.

Mark Abramowitz requested how and in which AQMO state standards are addressed.

Staff responded that it would be addressed in the 2022 AQMP, but there is no available state guidance how to address the standards.

3. 2006 24-hour PM2.5 NAAQS Attainment Demonstration for the South Coast Air Basin

Sang-Mi Lee presented this item. The presentation is available online at:
http://www.aqmd.gov/docs/default-source/GB-Committees/stmpr-presentation-081320_pmf_sl-rm.pdf?sfvrsn=12

Pablo Saide Peralta inquired about the emissions used in the model and whether model performance improved compared to the 2016 AQMP.

Sang-Mi Lee responded that the inventory was described in the previous presentation but provided a brief description. In comparison to the 2016 AQMP, the model performed similarly, but the measurements are only representative of certain points.

Jeremy Avise responded that the base years differed, so performance evaluation comparisons are not meaningful.

Pablo Saide Peralta speculated that wood burning drove the exceedances in Compton and asked whether staff would approach CARB for additional regulations of this sector.

Sang-Mi Lee responded that 2017 was an anomaly. Because the event has not recurred, it would not be realistic to take a regulatory action for an episodic and anomalous episode that has not been recurred.

Zorik Pirveysian noted that the Compton site is in a publicly accessible area and there may have been a community barbeque or other event nearby.

Mark Abramowitz noted that the Basin was re-designated to severe non-attainment for PM2.5 standards due to drought. He inquired if meteorological modeling has been revised to better reflect drought and climate change.

Sang-Mi Lee clarified that EPA's guidance require the meteorology for future attainment year to be the same as base year, therefore limited information on meteorological variability is accounted for in an attainment demonstration.

Lakshmi Jayaram inquired regarding the performance evaluation for Compton and Mira Loma.

Sang-Mi Lee noted that these would be included in the staff report. However, Mira Loma is more difficult to model due to transport and chemical transformations. In general, model performance is comparable.

4. 1997 8-hour Ozone Attainment Demonstration for the Coachella Valley

Marc Carreras Sospedra presented this item. The presentation is available online at: http://www.aqmd.gov/docs/default-source/GB-Committees/stmpr-presentation-081320_pmf_sl-rm.pdf?sfvrsn=12

Pablo Saide Peralta inquired regarding the boundary conditions used in the model.

Marc Carreras Sospedra stated that MOZART, a global scale chemical transport model, was used to generate the boundary conditions.