South Coast
Air Quality Management District
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AIR QUALITY MANAGEMENT PLAN ADVISORY GROUP MEETING DRAFT MINUTES

Tuesday, November 9, 2021
1:00 p.m.

1. Welcome, Introductions, and Approval of Minutes

Mr. Ian MacMillan, Assistant Deputy Executive Officer of South Coast AQMD's Planning, Rule Development, and Area Sources Division, called the virtual meeting to order at 1:00 pm. Dr. Sarah Rees, Deputy Executive Officer of South Coast AQMD's Planning, Rule Development, and Area Sources Division welcomed all participants and introduced South Coast AQMD staff present. Dr. Rees asked if there were any comments on the previous meeting's minutes. Since there were no comments, the minutes were approved.

Comments from Advisory Group and Staff Responses:
No comments from the Advisory Group members on this agenda item.

Comments from Public and Staff Responses:
No comments from the Public on this agenda item.

2. Updates on 2022 AQMP Emissions Inventory

Dr. Sang-Mi Lee, Program Supervisor of Planning, Rule Development, and Area Sources Division provided updates on the emissions inventory for the 2018 base year and future attainment years. The inventory for ocean going vessels (OGV) has been updated using the latest transponder-based data called the automated information system (AIS). For 2037, NOx emissions from OGV are 9 tons per day (tpd) less than the previous inventory presented. The second significant update is the incorporation of Rule 1109.1, which was adopted by South Coast AQMD Governing Board on November 5, 2021. Implementation of this rule anticipates a NOx reduction of 7.7 to 7.9 tpd, where 90% of these reductions are expected by 2031. For VOCs, emissions decline from 417 tpd in 2018 to 386 tpd in 2031 but show a slight increase to 389 tpd in 2037. This increase in VOC emissions is due to growth in population, economic activity, and consumer products. Consumer products and other area sources account for the majority of VOC emissions in 2037 while off-road sources account for the majority of NOx emissions.

Comments from Advisory Group and Staff Responses:
Inquiry on if CARB mobile source strategy is reflected in inventory. Staff responded that the presentation showed baseline inventory, which reflects only already adopted regulations and programs. Emission reductions from the proposed mobile source measures and stationary source measures will be reflected in the attainment demonstration for the 70 ppb standard. South Coast AQMD control measures for stationary and mobile sources will be presented in the Control Measures Workshop to be held on November 10th.

Comments from Public and Staff Responses:

Inquiry on how solar energy is reflected is in the existing SIP. Staff responded that we would need to look at specific projections for the mix of contributing sources for power generation and how much solar contributes.

Inquiry on the breakdown of the area source category including consumer products which makes up the majority (57%) of the VOC emissions inventory. Staff responded that the inventory is shown in four categories. Detailed inventory has broken down into major sources category and even further into subcategories which has more than 100 categories. The detailed major source level inventory will be posted to the 2022 AQMP website and subcategory level emissions will be available through CARB's CEPAM page.

Inquiry on the information available regarding 2021 data for Ocean-Going Vessels – how the AQMP inventory which has 2018 as base year reflects the ports' backlog in 2021. Staff responded that OGV inventory is based on 2020 OGV activity data recorded through the AIS transponder, which was projected backward to 2018 and forward to 2037. The delays and congestion at the port are not expected to persist for years, but rather reflect a temporary post-COVID-19 situation and should have minimal impact. The 2022 AQMP is looking at long-term impacts.

3. Updates on 2022 AQMP Air Quality Modeling – Ozone Isopleths and Preliminary Carrying Capacity Estimates

Dr. Sang-Mi Lee provided updates on air quality modeling for the 2022 AQMP, focusing on ozone isopleths and preliminary carrying capacity estimates. The ozone isopleths reveal that significant NOx reductions are needed in the South Coast Air Basin to reach the 70 ppb ozone standard. Ozone isopleths are also shown for air monitoring stations in the Coachella Valley (Palm Springs and Indio) with South Coast NOx and VOC emissions since Coachella Valley ozone is sensitive to ozone levels of the South Coast Air Basin. Additional factors influencing carrying capacity include lateral boundary values to account for transport from the central valley and Mexico, emission controls placed in adjacent air basins, and category-specific vs. across-the-board reductions. The 2037 baseline emissions inventory shows 220 tpd of NOx. The carrying capacity, maximum allowable NOx emissions, is 60 to 70 tpd. Due to various factors affecting the carrying capacity, it is presented in a range. NOx reduction strategy is critical to attain the 70 ppb ozone standard. Current analysis shows that attainment of the 70 ppb ozone standard will require approximately NOx 70% reduction beyond the baseline condition. Glendora and San Bernardino are the design value sites, expected to have the highest ozone levels in 2037. Emission reductions needed for Coachella Valley are still being evaluated. The Coachella Valley's attainment is due in 2032. Greater emission reductions will be required in the South Coast Air Basin if neighboring air basins, states, and countries do not also substantially reduce emissions.

<u>Comments from Advisory Group and Staff Responses</u>:
Inquiry on the analyses on background ozone or stratospheric ozone affecting attainment in the South Coast Air Basin; there is concern that uncontrollable factors could make achieving attainment difficult. Staff responded that it is difficult to differentiate background ozone levels from the impact of ozone transport. Staff relies heavily on peer-reviewed scientific literature, which mostly indicate that long-range transport is highest during springtime because of atmospheric dynamics, and the impacts are highest at high altitudes. Stratospheric folding is similar since it follows storm tracks. The resulting impacts of long-range transport or stratospheric folding to surface level ozone are minimal in South Coast Air Basin. The California Research at the Nexus of Air Quality and Climate Change (CalNex)

field study indicates South Coast Air Basin has enough native ozone, combined with meteorological conditions and local geography to promote ozone formation. The high ozone episodes the SIP is targeting address the top 10 ozone days, where native chemical reactions dominate air quality. Some literature indicates that background emissions are in a downward trend, in coordination with decreasing emissions in the East Pacific. However, there are uncertainties in U.S. background ozone, so background concentrations remain consistent for the base year and future years.

Comments from Public and Staff Responses:
Inquiry on comparison between isopleths and trends for San Bernardino, Los Angeles, and Coachella Valley, and if impacts on marginalized communities are being addressed as urgent in areas such as San Bernardino where ozone levels are highest. Staff responded that the source areas of NOx emissions in South Coast Air Basin are downtown LA and western LA due to the heavy traffic and economic activities in that region. Ozone levels are usually higher in San Bernardino because emissions are generated in Los Angeles and then chemically formed during the transport to inland. The sea breeze transports NOx emissions downwind from this high emissions region to San Bernardino. To the east, the San Bernardino Mountains block ventilation resulting in an accumulation of precursors that are trapped and stagnant, resulting in high pollution levels. Eventually the pollutants are either transported over the mountain range or return towards coastal Los Angeles. As a result, San Bernardino currently exhibits high levels of ozone. This also indicates why Palm Springs and Indio have high ozone levels even though they do not have significant emissions compared to the western basin. MATES V looks at toxic pollutant sources and which communities are most significantly impacted. Based on a comprehensive impact analysis, South Coast AQMD and the State have programs to prioritize improving air quality in these disadvantaged communities.

Inquiry on the history of the carrying capacity and how it has changed; in comparison, climate regulations were once using 1990 levels for a baseline and are now using 2005 levels. Staff responded that there is a difference between how the national ambient air quality standards (NAAQS) and climate planning processes are addressed. For NAAQS, there is a concentration level set that regions need to attain below. This level is not relative to a baseline, but rather to a set standard level. Carrying capacity, which is the maximum allowable emissions to reach a standard, changes depending on which standard addresses. Over time, the EPA tends to tighten standards, and as ozone standards get more stringent that carrying capacity also gets tighter.

4. Updates on 2022 AQMP Control Measures

Updates on the control measures for the 2022 AQMP were presented with summaries of recent actions for AQMP Working Group meetings. Mr. Michael Krause, Planning and Rules Manager of South Coast AQMD, provided updates for the Residential and Commercial Buildings Working Group, including the general approach for individual control measures by commercial and residential sources, by equipment type, and by existing and new buildings. South Coast AQMD will continue to identify zero-emission and low-emission technologies and proposes regulatory and incentive-based implementation approaches for each individual building category. Mr. Ian MacMillan presented updates for the Aircraft Working Group. Key items include the impact of new aircraft on fuel consumptions and emissions, potential strategies to reduce aircraft emissions through new engine standards and operational improvements, and the significant impact of aircraft operations on the Basin's emissions and ozone air quality. Baseline aircraft NOx emissions have increased and account for about 40% of the air basin's carrying capacity. Dr. Elaine Shen, Program Supervisor of Planning, Rule Development, and Area Sources Division

presented updates for the Ocean-Going Vessels Working Group. CARB updated the OGV inventory and methodology to incorporate one-minute transponder data for base year emissions. Significant Tier III vessels penetration (75% reductions) is not expected until 2030 or later, and further analysis is needed to investigate benefits of Tier III vessels at low engine loads. Additional technology demonstrations will determine potential benefits of Water-in-Fuel retrofit technology. Mr. Lane Garcia, Program Supervisor of Planning, Rule Development, and Area Sources Division provided an update on the Zero Emission (ZE) Infrastructure Working Group, which had their first meeting in September. The goal of this group is to develop a control measure to support ZE infrastructure while longer-term statewide transportation electrification planning is still underway. The next series of working group meetings are planned for December and January to continue evaluation of control strategies.

An overview of the upcoming South Coast AQMD Control Measures Workshop on November 10th was also provided. The Workshop addressed the challenges and pathway associated with meeting the 70% reductions target by 2037. Achieving the 70 ppb ozone standard requires significant push to zero emissions technology.

Comments from Advisory Group and Staff Responses:
Comment that ZE technology is critical for attainment of both the 70 ppb in 2037 and the 75 ppb standard in 2031; request for clarification regarding ZE infrastructure and industrial electrification. Inquiry on the comment period and when the draft 2022 AQMP will be released. Staff responded that South Coast AQMD understands the importance of ZE technology for both the 75 ppb and 70 ppb ozone standards. The extent that ZE technology was considered in the 2016 AQMP compared to the 2022 AQMP is a matter of scale and sectors addressed in the strategy. There is no focus working group for large industrial stationary sources and potential ZE technologies, but South Coast AQMD has an overall comprehensive strategy to manage these sources. Initial comments on control measures are due on November 30th. The draft 2022 AQMP is scheduled to be released tentatively for the end of January.

Comment on concerns regarding control measure CTS-01 for adhesives and coatings; additional reductions beyond the current state pose challenges and removing two major compounds from exemption could be devastating to the industry. Staff responded that these concepts come from a development process based on current research and ideas, but are not definitive or a part of rule-making yet. However, removal of those compounds from the exemption list is set to proceed forward and the process will be an open discussion.

Comment that South Coast AQMD is acting as a regulatory barrier to the implementation of near zero VOC technology, and the industry encourages South Coast AQMD to coordinate with other internal branches such as the permitting group to remove policies that negatively impact the implementation of new technologies. Staff thanked the individual for the comment.

Comments from Public and Staff Responses:
Comment that this meeting has a different tone compared to AB617 and other public meetings regarding inclusion, technical language, public participation, and community outreach; request for more visibility on number of attendees and the need for translator. Staff responded that the AQMP Advisory Group meeting is intended to be more formal compared to meetings for AB617, rule-making and other public meetings. This meeting is designed to present the detailed technical data associated with the 2022 AQMP development to be transparent with how the policies are crafted. Staff acknowledges that there

are limitations to the zoom-style meetings, and South Coast AQMD is open to a translator if there is the need for one.

Comment regarding CTS-01 to breakdown the area source category that represents 57% of VOC emissions to ensure policies are addressing the largest contributing sources. Staff responded that the preliminary draft inventory will provide more detail and breakdown to major source categories. This data will be posted to the South Coast AQMD website.

Comment that South Coast AQMD staff need take advantage of all reductions opportunities available rather than only prioritize the AQMP; South Coast AQMD should work with the state and federal government to focus on long-term elimination of combustion sources in the basin and target sources that are most cost-effective first. Staff agreed that achieving attainment is beyond what South Coast AQMD can do alone, and state and federal government and other agencies need to work together towards this goal.

Comment on various topics including solar, climate, federal implementation, the State SIP, and cars in California. Staff thanked the individual for the comments.

5. Other Business

No additional comments, announcements, or reports from the Advisory Group members.

6. Public Comment

No additional comments, announcements, or reports from the Public.

7. Next Meeting tentatively planned for January/February 2022

<u>Members Present</u> (22)
Adrian Martinez, Earthjustice
Bill LaMarr, California Small Business Alliance
Christopher Chavez, Coalition for Clean Air
Curtis Coleman, Southern California Air Quality Alliance
Dan McGivney, Southern California Gas
David Darling, American Coatings Association
David Rothbart, Southern California Alliance of Publicly Owned Treatment Works
Duane Baker, San Bernardino County Transportation Authority/San Bernardino Council of Govt's
Greg Nord, Orange County Transportation Authority
John Ungvarsky, U.S. Environmental Protection Agency
Lakshmi Jayaram, Future Ports
Lori Huddleston, Los Angeles County Metropolitan Transportation Authority
Martha Masters, Riverside County Transportation Commission
Marvin Fernando Pineda, International Longshore and Warehouse Union Locals 13, 63, and 94
Michael Carroll, Latham & Watkins
Patty Senecal, Western States Petroleum Association
Paul Ryan, California Refuse Recycling Council
Ramine Cromartie, Western States Petroleum Association

Rita Loof, RadTech
Rongsheng Luo, SCAG
Thomas Jelenic, Pacific Merchant Shipping Association
Tim DeMoss, Port of Los Angeles

Public Attendees and Interested Parties (60)

Ali Ghasemi, VCAPCD
Alison Torres
Amy Lilly
Ariel Fideldy, CARB
Bridget McCann
Ben Leers, US EPA
Bertrand Gaschot, MDAQMD
Chadwick Collins Kellen
Chris Drechsel
Christine Batikian
Christine Viterelli
Christine Wolfe
Craig Sakamoto
CYK Kaufman
Danny McQuillan, VCACPD
Davis Rohan
Drew Johnstone
Dustin Rice
Eric Anderson
Erin Berger
Fernando Gaytan
Frances Keeler
Glenn Choe
Harvey Eder
James Perez
Janet Baad
Jeremy Avise, CARB
Joe Gagliano
John DeWitt
John Henkelman, VCAPCD
Julia Lester
Kenneth Dami
Kiersten Melville
Kris Flaig
Lara Porter
Loraine Lundquist
Luis Amezcua
Mana Sangkapichai, SCAG
Mark Abramowitz
Mark Adams
Marshall Waller

Mary Valdemar
Matthew Forest
Melin Lu
Michelle Zumwait
Morgan Caswell
Nolan Leal
Oscar Espino-Padron
Resa Barillas
Rose Szoke
Rynda Kay, US EPA
Scott King, Ph.D., CARB
Scott Weaver
Steve Brett
Sylvia Vanderspek, CARB
Teja Ganapa
Teresa Perez
Todd Campbell
Tom Swenson
Tyler Harris, VCAPCD

South Coast AQMD Staff Present (33)
Anthony Tang, Information Technology Supervisor
Barbara Baird, Chief Deputy Counsel
Brian Choe, Program Supervisor
Cui Ge, Ph.D., AQ Specialist
Diana Thai, Program Supervisor
Danielle Soto, Senior Public Information Specialist
Elaine Shen, Ph.D., Program Supervisor
Elham Baranizadeh, Ph.D., AQ Specialist
Eric Praske, Ph.D., AQ Specialist
Erika Chavez, Senior Deputy District Counsel
Ian MacMillan, Assistant Deputy Executive Officer
Jeffrey Inabinet, Senior Staff Specialist
Jong Hoon Lee, Ph.D., AQ Specialist
Josephine Lee, Senior Deputy District Counsel
Kalam Cheung, Ph.D., Program Supervisor
Kathryn Roberts, Deputy District Counsel II
Kayla Jordan, Assistant AQ Specialist
Lane Garcia, Program Supervisor
Laurence Brown, AQ Specialist
Marc Carreras-Sospedra, Ph.D., AQ Specialist
Mark Henninger, Information Technology Manager
Mary Reichert, Senior Deputy District Counsel
Michael Krause, Planning and Rules Manager
Paul Wright, Senior Information Technology Specialist
Ricky Lai, AQ Specialist
Rui Zhang, Ph.D., AQ Specialist

Sang-Mi Lee, Ph.D., Program Supervisor
Sarah Rees, Ph.D., Deputy Executive Officer
Scott Epstein, Ph.D., Program Supervisor
Veera Tyagi, Principal Deputy District Counsel
Vicki White, Technology Implementation Manager
Wei Li, Ph.D. AQ Specialist
Xinqiu Zhang, Ph.D., Senior Staff Specialist