

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
(415) 749-5073

APPROVED MINUTES

Advisory Council Regular Meeting
Wednesday, May 8, 2013

Note: Audio and webcast recordings of the meeting are available on the website of the Bay Area Air Quality Management District at <http://www.baaqmd.gov/The-Air-District/Board-of-Directors/Advisory-Council/Agendas-and-Minutes.aspx>.

CALL TO ORDER

Chairperson Robert Bornstein called the meeting to order at 9:02 a.m.

ROLL CALL

Present: Chairperson Robert Bornstein, Ph.D., Vice-Chairperson Sam Altshuler, P.E.; Secretary Liza Lutzker, M.P.H.; and Members Jennifer Bard, Benjamin Bolles, Harold Brazil, Heather Forshey, Stan Hayes, John Holtzclaw, Ph.D., Kraig Kurucz, Gary Lucks, J.D., C.P.E.A., Kathryn Lyddan, J.D., Rick Marshall, P.E., P.L.S., Timothy O'Connor, J.D., Jessica Range, LEED A.P., and Murray Wood.

Absent: Members Jeffrey Bramlett, M.S., C.S.P., Jonathan Cherry, A.I.A., LEED A.P., and Estes Al Phillips.

Also Present: None.

OPENING COMMENTS: None.

PUBLIC COMMENT PERIOD: None.

PRESENTATIONS

1. Black Carbon: Introduction to Measurement and Exposure [OUT OF ORDER]

- A. Black Carbon – Exposure and Mitigation
Professor Veerabhadran Ramanathan
Distinguished Professor
Scripps Institution of Oceanography
University of California, San Diego

Jean Roggenkamp, Deputy Air Pollution Control Officer, introduced Professor Veerabhadran Ramanathan, Distinguished Professor, Scripps Institution of Oceanography, University of California, San Diego and provided a brief description of his background.

NOTED PRESENT: Member Kurucz was noted present at 9:04 a.m.

Prof. Ramanathan gave a presentation entitled, “Black Carbon – Exposure and Mitigation” (*a copy of which is available on the website of the Bay Area Air Quality Management District at <http://www.baaqmd.gov/The-Air-District/Board-of-Directors/Advisory-Council/Agendas-and-Minutes.aspx>*), with supplemental comments from and discussion with the Council as follows:

NOTED PRESENT: Member O’Connor was noted present at 9:10 a.m.

NOTED PRESENT: Member Bard was noted present at 9:11 a.m.

NOTED PRESENT: Member Wood was noted present at 9:13 a.m.

Chairperson Bornstein asked, regarding slide #19, [untitled], about the meaning of “SSA” which Prof. Ramanathan provided.

Prof. Ramanathan concluded the presentation.

Council Comments:

Member Kurucz asked for elaboration on the statement regarding the effectiveness of black carbon (BC) controls on climate change and for advice for those who might impose further regulations, which Prof. Ramanathan provided, noting the need to conduct more research to determine the real causes.

Member Lutzker asked for more information on brown carbon (BrC), which Prof. Ramanathan provided while noting the information contained in slides #22, *Now BrC?*, through 24, [untitled].

Member Hayes asked, regarding slide #19, [untitled], if the data is relative to California alone and how a graph like this would look for other regions, which questions were answered by Prof. Ramanathan and by Thomas W. Kirchstetter, Associate Adjunct Professor, University of California, Berkeley.

Member Altshuler asked for the climate impact ratio between BC and carbon dioxide and Prof. Ramanathan answered, noting a point of disagreement.

Member Altshuler asked about the effect of ammonium nitrates as climate forcers, which Prof. Ramanathan answered.

Member Bard asked about the contributions to total climate heating that can attributed to BrC, which question was answered by Prof. Ramanathan.

Public Comments: None.

B. Black Carbon – Measurement and Modeling
Professor Robert Harley
Professor of Environmental Engineering
Department of Civil and Environmental Engineering
University of California, Berkeley

Ms. Roggenkamp introduced Professor Robert Harley, Professor of Environmental Engineering, Department of Civil and Environmental Engineering, University of California, Berkeley, and provided a brief description of his background.

Prof. Harley gave a presentation entitled, “Black Carbon in the San Francisco Bay Area: Trends in Ambient Concentrations and Emissions” (*a copy of which is available on the website of the Bay Area Air Quality Management District at <http://www.baaqmd.gov/The-Air-District/Board-of-Directors/Advisory-Council/Agendas-and-Minutes.aspx>*), with supplemental comments from and discussion with the Council as follows:

Prof. Harley noted, regarding slide #7, Seasonality in Ambient BC, that a variance does exist between weekday and weekend levels.

Chairperson Bornstein asked, regarding slide #16, Tunnel Fine Particle Mass and Speciation, the meaning of “QBT,” which Prof. Harley responded provided.

Prof. Harley concluded the presentation.

Council Comments:

Member Marshall asked, regarding slide #13, Ambient BC at West Oakland, about a possible correlation between the rebounding economy and the slow increase in monthly average BC concentrations shown from 2010 through 2012 and speculated the levels will continue to increase as the economy improves, to which Prof. Harley responded.

Member Hayes asked, regarding slide #3, BC Introduction, for elaboration on the second bullet, which Prof. Harley provided.

Chairperson Bornstein said California is in the lead in emissions reductions and asked about the resulting downwind impacts, which Prof. Harley answered.

Member Bard noted slide #22, BC Fraction in Fine PM [particulate matter] Emissions, and asked for more information regarding the health effects of various types of carbon emissions, which Prof. Harley provided.

Dr. Saffet Tanrikulu, Research and Modeling Manager of Planning, Rules and Research Division, pointed out, regarding slide #7, Seasonality in Ambient BC, seasonal fluctuations and said this is partly due to BC transport from other regions, serving to elevate background levels and mask proper measurement comparisons, resulting in uncertainties in comparing trends in emissions and ambient levels of BC. Chairperson Bornstein said that one cannot compare locations against each other, only various points within each location. Prof. Harley agreed.

Phil Martien, Air Quality Engineering Manager of Planning, Rules & Research Division, noted that the West Oakland monitor is not so different than other monitors in that it is influenced by various sources, not just the Port, and asked for suggestions on how to improve monitoring for tracking purposes, which Prof. Harley provided.

Public Comments: None.

PANEL DISCUSSION

2. Black Carbon – Measurement and Exposure [OUT OF ORDER]

Mr. Stevenson asked if any difference in BC has been observed in terms of emissions from agricultural burning as compared to residential burning, which question was answered by Prof. Ramanathan.

Member Holtzclaw asked, regarding Prof. Harley's slide #12, Ambient Elemental Carbon (EC) Data for the Bay Area, if the EC attributed to Pinnacles and Pt. Reyes may be coming from Asia and if one may conclude that its levels are decreasing, which questions were answered by Prof. Harley.

Chairperson Bornstein asked if it is true that China particles travel at a relatively high elevation, which question was answered by Prof. Harley.

Member Holtzclaw clarified that Prof. Harley's presentation suggests sources are decreasing.

Member Lucks asked, regarding Prof. Ramanathan's slide #8, Near and Long Term Mitigation, for regulation recommendations, which Profs. Ramanathan and Harley provided.

Ms. Roggenkamp provided clarification regarding the District's retirement policy regarding diesel truck programs.

Member Lutzker asked for clarification regarding the cumulative cooling or heating effect attributed to biomass burning, which was provided by Prof. Ramanathan. Chairperson Bornstein asked if the same is true globally and locally, for comparisons to an urban area, and about the modeling that has been done in this area, which questions were answered by Profs. Ramanathan and Harley, as well as Associate Adjunct Prof. Kirchstetter.

Member Lutzker asked for clarification regarding the chemical composition of BrC in biomass burn emissions, which was provided by Prof. Ramanathan.

Chairperson Bornstein clarified that BrC is not being defined by its composition but by its effect on radiation, which question was answered by Profs. Ramanathan and Harley.

Member Lutzker asked for clarification regarding BrC being defined optically, as opposed to chemically, which clarification was provided by Prof. Harley.

Member Hayes said, regarding Prof. Harley's slide #22, BC Fraction in Fine PM Emissions, the Air District is able to effect the control of emissions from particular sources and asked if a look

at BC in the source categories provided might illuminate some action the Air District should be taking but currently is not, which question was answered by Profs. Ramanathan and Harley.

Member Hayes said diesel is a big success story in California and improving wood burning practices globally will have an even greater impact, then asked if there are recommendations for the Air District if it were not basing its strategy only on mitigating PM health effects, which question was answered by Prof. Ramanathan.

Chairperson Bornstein noted that models do not show a decrease in total precipitation in California but rather a shift from snow to liquid, resulting in less usable water due to runoff, to which Prof. Ramanathan responded.

Member Kurucz asked about the short-lived versus seasonal, or carry-over, longer terms relative to Dr. Jacobsen's calculations and the long-term impact of deposits on snow pack, which questions were answered by Prof. Ramanathan.

Member Kurucz asked about the BC contribution from coal-fired power plants, which question was answered by Prof. Harley.

Member Altshuler recalled mention of the contribution of lube oil burning vehicles and asked for additional comments or recommendations and whether there is a metal of concern in lube oil, which questions were answered by Prof. Harley.

Member O'Connor noted the ongoing problems of BC and BrC for various communities in California and the progress made on diesel emissions reductions, and asked if further work towards additional diesel-related reductions is worthwhile or if the Air District should be turning its limited resources towards a BrC focus, which questions were answered by Profs. Ramanathan and Harley.

Member Bard urged a wider dialogue on where the focus of Air District efforts should be, suggested moving forward on both biomass/wood smoke and diesel emissions, and asked if the presenters agreed.

Member Altshuler recalled that use declines for those engines that are exported due to Air District retrofit programs and the decline should be factored into emissions calculations and then urged for a comparison, either by staff or the Council, of the total climate issue as it relates to a diesel engine, a biodiesel engine and a wood-burning fire, in order to better consider future strategy.

Chairperson Bornstein asked if local climate impact would be measurable if a local source of BC emissions were to be removed, which question was answered by Prof. Ramanathan.

Chairperson Bornstein asked the presenters for suggested Emerging Issues and Recommendations for the Council to consider for its report to the Board of Directors.

Prof. Ramanathan said he supported the point made by Members O'Connor and Lutzker relative to continued efforts at mitigating diesel emissions and wood smoke, and that transportation is a good focus because traffic contributes more emissions when stopped than while moving.

Prof. Harley said he supported monitoring, especially for BC, for the next ten years. Chairperson Bornstein and Prof. Harley discussed instrumentation. Prof. Harley recommended addressing BrC and BC, knowing that both with likely help with climate change, and prioritize based on public health concerns, if necessary.

Member Bolles, Prof. Harley and Mr. Stevenson discussed the concept of crowd sourcing air monitoring by delivering inexpensive devices to students in Bay Area schools. Mr. Stevenson will provide a staff update on the efforts in this regard by the United States Environmental Protection Agency. Members Kurucz and Lutzker recalled similar projects involving street sweepers and asthma inhalers, respectively. Member Altshuler noted the similarity in these trends and suggested every square mile is not in need of monitoring.

Prof. Harley added his support for encouraging the retirement, rather than exporting of, older equipment replaced through Air District programs.

Member O'Connor said BrC emission controls were mentioned by Prof. Ramanathan but not identified and asked if the Council should have someone present on the topic of wood smoke controls.

Chairperson Bornstein asked for recommendations on modeling, which Prof. Harley provided.

Member Lucks, Mr. Martien and Chairperson Bornstein discussed the possibility of the Air District working to mitigate emissions from airport ground equipment in light of its limited authority in regards to locomotives.

Member O'Connor suggested the Air District has various tools at its disposal that are not regulatory in nature, provided examples of transportation changes and efficiencies implemented in other regions and by various companies, and asked for recommendations outside of the regulatory realm. Member Lutzker recalled the presentation by Rajiv Bhatia, M.D., M.P.H., Director of Occupational and Environmental Health, San Francisco Department of Public Health, who talked about congestion management in this light.

Chairperson Bornstein stated his disagreement with the Air District's numbers relative to the number of fatalities attributed to various pollutants and suggested their estimate for toxics is very low, asked how this might be occurring and suggested it as an area of study. Prof. Harley was unable to answer.

CONSENT CALENDAR

3. Approval of the Minutes of the Advisory Council meeting of April 10, 2013

Council Comments: None.

Public Comments: None.

Council Action: Member Holtzclaw made a motion to approve the minutes of April 10, 2013, as amended in today's meeting, and Member Lutzker seconded.

Member Lutzker said to amend page 4, last paragraph in section 5, to replace “Maltz” with “Balmes” and requested a more specific internet address be provided for accessing the audio recording of the meeting.

Member Range said to amend page 3, first paragraph in section 2, to move the opening paragraph into the “Council Comments” subsection.

Chairperson Bornstein said to move the internet address for accessing the audio recording of the meeting to the top of the minutes.

Chairperson Bornstein and Member Bolles discussed the advantages of the new approach to Council minutes.

The motion carried unanimously.

OTHER BUSINESS

4. Council Member Comments/Other Business [OUT OF ORDER]:

Members Altshuler, Bolles and Bard and Mr. Stevenson discussed whether beach fires should be explored as an emissions source in need of regulation and the difficulties that may present.

Member Lutzker said a comprehensive report, Asthma in California: A Surveillance Report, was recently released by the California Department of Public Health and is available at californiabreathing.org.

Member Marshall commended staff on their recent outreach to Napa County regarding dust control at construction sites and discussed the same with Henry Hilken, Director of Planning, Rules & Research.

Member O’Connor said University of California, Davis is holding a workshop on Friday, May 10, 2013, regarding improving the diesel freight sector and that he will provide more information to the Council.

Member O’Connor mentioned the Hackenschmidt Symposium is next week, asked if Air District staff plan to attend and offered to report back.

5. Chairperson’s Report:

Chairperson Bornstein said the Chairperson’s name will be on all future speaker invitations, announced the Council members that will be attending the Air and Waste Management Conference as Air District representatives, mentioned the need to select a topic for the third cycle of Council meetings this year, said the July meeting may allow time for a staff presentation, noted the Air District is recruiting for the vacant Council seat in the regional parks category and asked Member Lyddan to assist with the same, said he will be presenting the Council quarterly report at the meeting of the Board of Directors Executive Committee on May 20, 2013, and reminded Council members to notify Mr. Stevenson if they would like a letter of gratitude from the Air District to be sent to their employer.

The Council discussed the time allotment for presentations and the panel discussion and the ideal population of report drafting work groups.

Mr. Stevenson asked that the draft report be delivered to staff by no later two weeks after the meeting and the Council discussed the same.

6. Report of the Executive Officer/Air Pollution Control Officer: None.

7. Time and Place of Next Meeting: Wednesday, June 12, 2013, Bay Area Air Quality Management District Office, 939 Ellis Street, San Francisco, CA 94109 at 9:00 a.m.

8. Adjournment: The meeting adjourned at 12:21 p.m.

151 Sean Gallagher

Sean Gallagher
Clerk of the Boards