

Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, California 94109

APPROVED MINUTES

Advisory Council Regular Meeting  
10:00 a.m., Wednesday, September 13, 2006

**CALL TO ORDER**

Opening Comments: Chairperson Kurucz called the meeting to order at 10:05 a.m.

Roll Call: Present: Kraig Kurucz, Chair, Sam Altshuler, P.E., Louise Bedsworth, Ph.D., Ken Blonski, Robert Bornstein, Ph.D., Jeffrey Bramlett, Harold Brazil (10:10 a.m.), Irvin Dawid, Emily Drennen, Fred Glueck, William Hanna (10:10 a.m.), Stan Hayes, John Holtzclaw, Ph.D., Janice Kim, M.D., Steven Kmucha, M.D., Ed Proctor, Linda Weiner, Brian Zamora.

Absent: Cassandra Adams, Karen Licavoli-Farnkopf, MPA

Council members Brazil and Hanna arrived at 10:10 a.m.

**PUBLIC COMMENT PERIOD:**

James Corazza  
Deputy Clerk of the Boards  
Bay Area Air Quality Management District

Mr. Corazza addressed the Advisory Council and bid farewell to the members since he was leaving the District after 21 years of service. The Council members commended and applauded Mr. Corazza for his service to the Advisory Council.

**CONSENT CALENDAR:**

- 1. Approval of Minutes of July 12, 2006.** Dr. Holtzclaw pointed out that on Page No. 2, Item No. 4, in the third sentence of the minutes, the word “years” should be added after “80”. Mr. Proctor moved approval of the minutes, as corrected; seconded by Mr. Bramlett; carried unanimously.

**COMMITTEE REPORTS**

- 2. Air Quality Planning Committee Meeting of August 9, 2006.** Mr. Hayes stated that the Committee received staff presentations on methane gas recovery at landfills and the revision of the District’s guidance on the inclusion of climate change categories and air quality elements in local general plans and the California Environmental Quality Act review process.

Mr. Hayes distributed the “Carbon Footprint Analysis: BAAQMD Advisory Council Air Quality Planning Committee” to the members for their review. Mr. Hayes referred to a motion that was adopted at the last Planning Committee meeting whereby the Committee recommended that a Carbon Footprint be developed for the full Advisory Council.

Mr. Hayes explained that the Carbon Footprint Analysis contains a calculation of emissions based on members’ travel to and from meetings, the use of electricity for meetings of the Committee at the District facility, and air travel to and from the Air & Waste Management Annual Exhibition & Meeting. The vast majority of emissions derive from the attendance of Council members at the latter. If an offset fee were tacked on to the 12,970 pounds of carbon generated annually by the Committee, a fee of \$5.50 per tons per year of CO<sub>2</sub> would amount to \$35.67. Chairperson Hayes noted that the company for which he works is striving to become carbon neutral in all of its planning activities globally, and has calculated that it can do so at a total cost of approximately \$5,000. There was a lengthy discussion on the topic.

Mr. Hayes moved that, on behalf of the Planning Committee, the Advisory Council develop its Carbon Footprint to beyond carbon neutral to become consistent with the statewide greenhouse gas reduction targets, as adopted in AB 32; seconded by Dr. Holtzclaw; carried unanimously. Mr. Kurucz stated that this matter will be referred back to the Planning Committee to pursue and develop the Carbon Footprint further. Mr. Hayes requested each Council member to review the Analysis and to send their individual data back to him, via email. The Committee will then compile the data and forward it to District staff for further details and calculations to whatever level they may wish to pursue it.

- 3. Technical Committee Meeting of August 9, 2006.** Dr. Bornstein stated that the Committee received a staff update on the District’s Community Air Risk Evaluation (CARE) program. The CARE program objectives are to (1) evaluate community cancer and non-cancer health risk from ambient toxic air contaminants, and (2) focus the health risk mitigation measures on locations with higher risk levels and sensitive populations. The program is designed in three phases. Phase I concerns conducting scoping studies of the toxic emission inventory and further refinement of the inventory, along with initial mitigation measures. Phase II concerns modeling pollutant concentrations and continued development of mitigation measures. Phase III concerns exposure assessments and mitigation measures. Phase I of the CARE program is nearing completion. Among the findings and results observed to date, data has been generated for cancer toxicity-weighted emissions based on each pollutant – in which diesel particulate ranks as the foremost pollutant at 80%. Fifty percent of the chronic non-cancer risk is from acrolein.

Dr. Bornstein further stated that in a discussion phase that followed, he had inquired if it might be advisable to request a presentation from the South Coast AQMD staff on its modeling work and then have a meeting between South Coast and Bay Area staff. Dr. Bornstein has been in contact with Dr. Phil Martien, Senior Advanced Projects Advisor and CARE Program Manager who advised Dr. Bornstein that he has made the proposal to the District to invite the South Coast AQMD to make a presentation at the next Technical Committee. The speaker from South Coast AQMD will provide a summary of what was learned from their program and will be available for further discussions with the District staff.

**4. Public Health Committee Meeting of September 6, 2006.** Mr. Bramlett stated that the Committee was asked to consider the topic of Wood Smoke Emissions as part of its work during 2006. Staff presented an update on the wood burning behavior in the Bay Area. The Committee unanimously arrived at its recommendations for forwarding to and consideration by the full Advisory Council. It recommends that the District should continue its current efforts and immediately develop and implement a program to further reduce wood smoke emissions. This program should be a multi-pronged effort and phased in over the next few years. Characteristics of the program should include:

A) Support the existing Wood Smoke Program through completion of the following elements:

- Continue promotion of the Model Wood Smoke Ordinance.
- Continue to study wood smoke emissions related to Particulate Matter (PM) levels.
- Continue monitoring of localized and community PM levels.
- Continue the use of public outreach techniques that use languages representative of the diverse communities.
- Expand public outreach to increase awareness of wood smoke impacts on PM levels and the harmful effects of elevated PM.
- Expand the use of incentives to accelerate elimination of conventional stoves and reduce wood burning, particularly through forming partnerships with Pacific Gas and Electric and the Hearth, Patio & Barbecue Association for change-outs of older conventional stoves with lower-emitting models.
- Develop and include, as part of a public outreach program, a list of fuels that should not be burned in residences. This list should include garbage, chemically treated wood products and plastics. Consider adding to the list of prohibited fuels wood products having moisture content greater than 20%.
- Consider a wood stove crushing program

B) Adopt a Two-Step Wood Smoke Curtailment Program to follow the District's existing voluntary curtailment of the "Spare the Air Tonight" program and include a mandatory curtailment program as the second step. Elements that should be included:

- Reduce the current threshold for Spare the Air Tonight events so that more events are called per season.
- Consider setting the mandatory curtailment threshold at 25 micrograms per cubic meter for PM<sub>2.5</sub>.
- Create a rule to define and prohibit improper emissions from wood burning to provide enforcement officers a tool to prevent individuals (residential) creating emissions at the expense of public health.
- Enact an opacity element applicable to residential wood burning emission to aid mandatory curtailment enforcement options.

C) Keep the Advisory Council informed as the wood smoke program reaches significant milestones in its development and implementation.

In response to questions from Council members, Mr. Bramlett stated that:

- a) Models for enforcement of improper wood burning in residential areas could be borrowed from other jurisdictions that have fairly well developed models, particularly from the Puget Sound Clean Air Agency.
- b) In order to keep this presentation short and concise, he had not included any of the key issues and other details in his presentation. Control measures that are effective and reduce wood smoke have already been adopted by other state and regional air quality agencies, such as the Puget Sound Clean Air Agency. The District can benefit from their experience with programs such as burning curtailment, regulatory standards on opacity and enforcement, increased public outreach, and incentives and grants implementation.
- c) The rule making process related to the subject will be carried out by the District Staff and not by the Advisory Council.

Peter Hess, Deputy Air Pollution Control Officer, commended and applauded the work of the Public Health Committee on this matter and stated that the District endorses the recommendations of the Public Health Committee. He stated that the District staff was in discussions with the regulatory staff of the San Joaquin Valley Air District and Puget Sound Air Agency with regard to developing regulations for the wood smoke program. Staff will be embarking on a fully integrated wood burning device mitigation program; developing the necessary language for the regulation; writing the required socio-economic reports; preparing the CEQA documents; conducting the necessary workshops and finally presenting the rule and regulation to the District's Board of Directors for its adoption.

Mr. Hess also mentioned that the District is looking into the possibility of developing language similar to Washington State whereby for every wood burning device being sold, there will be a \$1 surcharge towards a wood burning device crushing program or buy-back program.

Chairperson Kurucz thanked the Committee for its excellent work of getting all the stakeholders together and developing a set of recommendations for the Council to consider. Mr. Kurucz was of the opinion that if the Advisory Council did not vote on the Committee's recommendations at this meeting, then there would be a lapse of another two months which would leave the District staff in doubt as to the Advisory Council's intent on this issue. If Council members had particular concerns with any aspects of the recommendations presented at today's meeting by Mr. Bramlett, these could be further discussed. At the next meeting of the Advisory Council, the members would have the full written proposal that would follow the Council's template for presenting recommendations to the Council, along with background information associated with it.

Mr. Hayes expressed his concerns over the mandatory enforcement issue. If it implies a demand on staff, he was not sure as to what resources might be available for staff to devote time to this issue, even though it is a very important element. He was of the opinion that there are different ways to address the issue of enforcement – one is to try to phase in newer lower emitting technologies to building code modifications and voluntary compliance and crushing programs, and educating the public. He reminded the Advisory Council that this issue has a very high visibility to the public. When the matter came before the Advisory Council ten years ago, there was a very intense discussion, not only

with the public but also with the Board of Directors. He recommended that the Advisory Council proceed very cautiously when making recommendations for enforcement actions against private individuals and residences.

Mr. Bramlett clarified that the mandatory enforcement program pertains to a curtailment program whereby the public would be requested not to burn on certain nights. The elements that pertain to enforcement are merely for providing the District with tools to use for enforcement, should it choose to do so.

Mr. Blonski stated that he would like to read the entire text of the proposal to understand the strategies that would be best utilized by other jurisdictions. He would like the text of the recommendations to include both chemically-treated materials and composite-based materials that should not be burned.

Ms. Weiner mentioned that the American Lung Association had worked with the District staff and discussed the issue of enforcement. There are a number of models from which to choose, and the selection and implementation of a model that works best will be left up to the staff. Also, when the Public Health Committee heard all the speakers from San Joaquin Valley and Puget Sound, the Committee discussed the historical background and other issues that were controversial. The Committee decided to recommend an Ordinance that would be strong and workable.

Mr. Dawid stated that he would like to review a written report. However, he was concerned that the Advisory Council was spending an inordinate amount of time discussing a Committee report in such detail at this meeting. He recommended that the Advisory Council accept the Committee report, as presented, at this time, and await the written report.

Mr. Hanna stated that he would like the recommendations to be provided to the Advisory Council in a written report so that the Council members could discuss them with their respective constituencies for feedback.

Chairperson Kurucz suggested that the Committee prepare a written report and present it to the Advisory Council for its review and consideration.

## **PRESENTATION**

### **5. Observations of Long-Term Global Warming and of Regional Summertime Daytime Cooling in Coastal California air-basins.**

*Advisory Council "Colleges & Universities" category member Robert Bornstein, Ph.D., presented data regarding trends in global warming in light of observations made concerning regional patterns of annual-averaged daily minimum and maximum temperatures.*

Dr. Bornstein introduced his presentation that had been prepared in conjunction with his students, B. Lebassi and Drs. J.E. Gonzalez, D. Fabris, E. Maurer, from Santa Clara University and Norm Miller of Berkeley National Laboratory.

Dr. Bornstein stated that the global models show past and future warming and that the minimum temperatures at night will increase faster than the maximum temperatures. On the global scale, these models are run on very coarse resolutions (one to two and a half degree latitude and longitude) and they show projected reduced warming towards the coast. The global scale observations match the model results and they show accelerated warming since the 1970s; however, according to Dr. Bornstein's research, none of the results have addressed the right questions to indicate signs of cooling, even though cooling is present. Observed analyses have also shown that there is sea surface warming but warming at a lower rate than over land. This is important in terms of sea breeze forcing.

Dr. Bornstein and his group's hypothesis is that the inland warming that is happening at a rapid rate is increasing the horizontal temperature gradients between the inland areas and the coast because the ocean is warming at a slower rate. This increases the sea breeze in intensity, frequency, inland penetration and duration. Therefore, it is possible that coastal regions could be experiencing cooling temperatures during summer daytime periods. They obtained data from the National Climate Data Center (NCDC), the official storehouse of observations, for maximum and minimum temperatures from 300 California sites for the years 1948-2005. Data was also obtained from other sources, e.g. satellite and ship observations and mean monthly gridded sea surface temperature trends, and at Santa Clara University they worked with downscaled regional climate change modeling results for California for the 21<sup>st</sup> Century.

The analyses showed that the most accelerated warming has been since the 1970s. Only data from 1970 to 2005 were thus used in the calculation of annual and summertime warming/cooling trends, at  $^{\circ}\text{C}/\text{decade}$  for sea surface temperatures,  $T_{\text{max}}$  and  $T_{\text{min}}$  in California. Summertime land-sea temperature-gradient (as a surrogate for pressure-gradients) trends was estimated by use of summertime mean monthly sea surface temperatures and 2-meter inland  $T_{\text{max}}$  values.

Dr. Bornstein explained that the sea surface temperature off the California Coast shows warming rates of  $0.84\text{-}1.26^{\circ}\text{C}$  for the period 1970-2005 (from the NCDC data). The downscaled regional climate change modeling results for California on the 10 km resolution for the 21<sup>st</sup> Century show annual warming rates of  $1.6\text{-}2.5^{\circ}\text{C}$ . The coastal water area will thus be warming at a lesser rate than the inland areas.

The new results, which are preliminary, show long-term temperature trends for all of California with minimum temperatures rising most rapidly at  $0.27^{\circ}\text{C}/\text{decade}$ , sea surface temperatures at about  $0.24^{\circ}\text{C}/\text{decade}$ , and maximum temperatures at about one quarter of that. The sea breeze forcing (gradient) is increasing by about  $0.10^{\circ}\text{C}/100\text{km}/\text{decade}$ .

In summary, the minimum and maximum temperatures in California have been warming faster than the maximum temperatures for the entire State. However, summertime, daytime maximum temperatures are cooling in low elevation coastal air basins. In Central California, the following areas are cooling: Marine Lowlands, Monterey, Santa Clara Valley, Livermore Valley and the Western half of Sacramento Valley.

The good implications of these observations of regional summertime daytime cooling in coastal California air basins are:

- Napa wine areas may not go extinct.
- Agricultural areas may not shrink.
- Energy needs for cooling may not increase as rapidly as the population.
- There will be lower heat stress rates.
- Past and projected San Francisco Bay Area Ozone decreases may be in part due to daytime maximum temperature cooling trends and not only to emission reductions.

## **AIR DISTRICT OVERVIEW**

- 6. Report of the Executive Officer/APCO.** On behalf of Mr. Broadbent, Mr. Peter Hess, Deputy Air Control Officer, stated that the District called a Spare the Air day on September 12, 2006. Mr. Hess summarized the exceedances for the national and state ozone standards that occurred in the Bay Area region for the summer. This year the exceedances have impacted the District's attainment status, and if there are as many ozone exceedances next year, the District will be challenged to retain its attainment of the Federal Ozone Standard.

In response to questions regarding the Spare the Air program for 2007, Jean Roggenkamp, Deputy Air Control Officer, mentioned that the District is reviewing the needs for next year and will be conferring with the Metropolitan Transportation Commission (MTC) and the transit operators. The District would also be very interested in working with the Advisory Council to obtain its input for the 2007 program. Ms. Drennen inquired if the Planning Committee would be interested in working on the 2007 Spare the Air Day program with the District. Mr. Hayes, Chairperson of the Planning Committee, agreed to this idea.

Ms. Roggenkamp stated that MTC had taken the responsibility for working with the transit operators for estimating the changes in transit riderships. They used multiple methods for calculating the estimates in increased riderships. The District hires a firm each year to conduct the telephone surveys on the nights of Spare the Air days. The District has developed a protocol of questions, endorsed by the Air Resources Board (ARB), that tries to address behavioral pattern changes as a result of the Spare the Air days. This year the results indicated that 10% of the public changed their behavior in terms of trip-making, and about three percent changed their behavior for other kinds of activities such as not using certain consumer products and not mowing lawns.

## **OTHER BUSINESS**

- 7. Report of the Advisory Council Chair.** Chairperson Kurucz reported that he had attended the Board of Directors' Executive Committee meeting earlier today. The Executive Committee had commended the Advisory Council for its detailed minutes of meetings, and also mentioned that it was interested in obtaining input from the Advisory Council on Particulate Matter.
- 8. Council Member Comments/Other Business.**
- Mr. Dawid stated that AB 1870 (Lieber) is a bill that is co-sponsored by the Air District, California Council on Environment & Economic Balance and the Sierra

Club. The bill eliminates a loophole for a smoking vehicle that can actually pass the smog check test. The bill has been enrolled and it is unknown if the Governor will sign it because of some objections from the Consumer Affairs. The alert regarding the bill is posted on the Sierra Club's website.

- Mr. Altshuler recommended that the Advisory Council invite Mr. Bart Ostro to present his study that was presented at the 99<sup>th</sup> Air & Waste Management Association Conference in New Orleans to either one of the Committees or to the full Council.
- Dr. Bornstein inquired about the openings on the Advisory Council and the schedule for appointing new members. Mr. Hess stated that there will be about nine or ten openings on the Council, one of which will be for Mr. Hayes who will be completing his term on the Advisory Council. The interview process will start close to the end of the year when the Personnel Committee will interview the candidates and make recommendations to the Board of Directors for appointments.

**9. Time and Place of Next Meeting.** 10:00 a.m., Wednesday, November 8, 2006, 939 Ellis Street, San Francisco, CA 94109.

**10. Adjournment.** The meeting was adjourned at 12:38 p.m.

*/s/ Neel Advani*

Neel Advani

Deputy Clerk of the Boards