



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

ADVISORY COUNCIL AIR QUALITY PLANNING COMMITTEE

COMMITTEE MEMBERS

JOHN HOLTZCLAW, PH.D., CHAIRPERSON
HAROLD BRAZIL
IRVIN DAWID
EMILY DRENNEN

FRED GLUECK
KRAIG KURUCZ
KEVIN SHANAHAN

THURSDAY
FEBRUARY 9, 2005

7TH FLOOR BOARD ROOM
9:30 P.M.

1. **Call to Order – Roll Call**
2. **Public Comment Period**

Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3. The public has the opportunity to speak on any agenda item. All agendas for Committee meetings are posted at the District, 939 Ellis Street, San Francisco, at least 72 hours before a meeting. At the beginning of the meeting, an opportunity is also provided for the public to speak on any subject within the Committee's purview. Speakers are limited to five minutes each.

3. **Approval of Minutes of Joint Air Quality Planning & Technical Committee Meeting of December 16, 2004**
4. **The Current Status of Hydrogen Production and Fuel Cell Technologies and Recent California and U.S. Government Initiatives**

Dr. Tim Lipman, Assistant Research Engineer, Institute of Transportation Studies, University of California, will review the economics, technical status, and potential environmental impacts of hydrogen production and fuel cell technologies for transportation and stationary applications, as well as recent California and U.S. initiatives to promote the development and deployment of these technologies.

5. **Committee Member Comments/Other Business**

Committee members, or staff, on their own initiative, or in response to questions posed by the public, may ask a question for clarification, make a brief announcement or report on his or her own activities, provide a reference to staff regarding factual information, request staff to report back at a subsequent meeting on any matter or take action to direct staff to place a matter of business on a future agenda.

6. Time and Place of Next Meeting

9:30 a.m., Wednesday, April 13, 2005, 939 Ellis Street, San Francisco, CA 94109.

7. Adjournment

CONTACT CLERK OF THE BOARDS - 939 ELLIS STREET SF, CA 94109

(415) 749-4965
FAX: (415) 928-8560
BAAQMD homepage:
www.baaqmd.gov

- To submit written comments on an agenda item in advance of the meeting.
- To request, in advance of the meeting, to be placed on the list to testify on an agenda item.
- To request special accommodations for those persons with disabilities notification to the Clerk's Office should be given in a timely manner, so that arrangements can be made accordingly.

JH:jc

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET, SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

CLERK OF THE BOARDS OFFICE:
MONTHLY CALENDAR OF DISTRICT MEETINGS

FEBRUARY 2005

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i> - CANCELLED	Wednesday	2	9:45 a.m.	Board Room
Board of Directors Executive Committee <i>(Meets 5th Wednesday of Months that have 5 Wednesdays)</i>	Friday	4	9:00 a.m.	4 th Floor Conf. Room
Advisory Council Technical Committee	Monday	7	9:30 a.m.	Board Room
Advisory Council Air Quality Planning Committee	Wednesday	9	9:30 a.m.	Room 716
Board of Directors Mobile Source Committee <i>(Meets 2nd Thursday each Month)</i>	Thursday	10	9:30 a.m.	4 th Floor Conf. Room
Advisory Council Public Health Committee	Tuesday	15	1:30 p.m.	Room 716
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	16	9:45 a.m.	Board Room
Joint Policy Committee	Friday	18	10:00 a.m. – Noon	MetroCenter Auditorium 101 8 th Street Oakland, CA 94607
Board of Directors Legislative Committee <i>(At the Call of the Chair)</i>	Wednesday	23	9:30 a.m.	Room 716
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday each Month)</i>	Wednesday	23	9:45 a.m.	4 th Floor Conf. Room

MARCH 2005

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	2	9:45 a.m.	Board Room
Advisory Council Executive Committee	Wednesday	9	9:00 a.m.	Room 716
Advisory Council Regular Meeting	Wednesday	9	10:00 a.m.	Board Room
Board of Directors Mobile Source Committee <i>(Meets 2nd Thursday each Month)</i>	Thursday	10	9:30 a.m.	4 th Floor Conf. Room

March 2005 Calendar continued on next page

MARCH 2005

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Public Outreach Committee <i>(Meets 2nd Monday every other Month)</i>	Monday	14	9:45 a.m.	4 th Floor Conf. Room
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	16	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday each Month)</i>	Wednesday	23	9:45 a.m.	4 th Floor Conf. Room
Joint Policy Committee	Friday	25	10:00 a.m. – Noon	MetroCenter Auditorium 101 8 th Street Oakland, CA 94607
Board of Directors Stationary Source Committee <i>(Meets 4th Monday every other Month)</i>	Monday	28	9:30 a.m.	Board Room
Board of Directors Executive Committee <i>(Meets 5th Wednesday of Months that have 5 Wednesdays)</i>	Wednesday	30	9:30 a.m.	4 th Floor Conf. Room

APRIL 2005

<u>TYPE OF MEETING</u>	<u>DAY</u>	<u>DATE</u>	<u>TIME</u>	<u>ROOM</u>
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	6	9:45 a.m.	Board Room
Advisory Council Air Quality Planning Committee	Wednesday	13	9:30 a.m.	Room 716
Board of Directors Mobile Source Committee <i>(Meets 2nd Thursday each Month)</i>	Thursday	14	9:30 a.m.	4 th Floor Conf. Room
Joint Policy Committee	Friday	15	10:00 a.m. – Noon	MetroCenter Auditorium 101 8 th Street Oakland, CA 94607
Advisory Council Public Health Committee	Monday	18	1:30 p.m.	Room 716
Board of Directors Regular Meeting <i>(Meets 1st & 3rd Wednesday of each Month)</i>	Wednesday	20	9:45 a.m.	Board Room
Board of Directors Budget & Finance Committee <i>(Meets 4th Wednesday each Month)</i>	Wednesday	27	9:45 a.m.	4 th Floor Conf. Room

MR:hl
2/1/05 (9:25 a.m.)
P/Library/Calendar/Moncal

AGENDA NO. 3

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

DRAFT MINUTES

Advisory Council Regular Meeting
Joint Meeting of the Technical and Air Quality Planning Committees
9:30 a.m., Thursday, December 16, 2004

- 1. Call to Order – Roll Call.** Chairperson Brazil called the meeting to order at 9:40 a.m. Air Quality Planning Committee Members present: Harold Brazil, Joint Committee Chairperson; Irvin Dawid, Emily Drennen, Fred Glueck, John Holtzclaw, Ph.D., Kraig Kurucz, Kevin Shanahan. Technical Committee Members present: Joint Committee Chairperson, Louise Bedsworth, Ph.D., William Hanna, John Holtzclaw, Ph.D., Norman A. Lopera, Jr. Technical Committee Members absent: Sam Altshuler, P.E., Stan Hayes, Robert Bornstein, Ph.D.
- 2. Public Comment Period.** There were no public comments.
- 3. Approval of Minutes of October 12, 2004.** Dr. Bedsworth requested that “CO” be changed to “CO2” on line three of paragraph two on page two; “NOx emission in-use” to “in-use NOx emissions” in line one of paragraph two on page three; and “as is” to “as are” on line three of paragraph three on page two. Mr. Hanna requested that he be listed as “Present” instead of “Absent” on page one under “Call to Order/Roll Call.” Mr. Lopera requested changing “in of” to “of” on line two of paragraph four on page two. Mr. Dawid requested changing “easily” to “most easily” and “forms” to “sources” in line one of paragraph one on page two. Mr. Dawid moved approval of the minutes as amended; seconded by Dr. Holtzclaw, carried unanimously.
- 3. Discussion of Vehicles and Fuels**

Dr. Bedsworth stated the Joint Committee indicated it would review the presentations given at the last meeting, entitled “The Role of Advanced Technology Vehicles in Improving Air Quality and Reducing Greenhouse Gases” by *John Boesel, President and Chief Executive Officer for WestStart-CALSTART*, and “Alternative Fuels Now... and in the future” by *Mike Jackson, Director, TIAX LLC*.

She distributed her memorandum entitled “Issues for Committee consideration with respect to vehicles and alternative fuels,” dated December 15, 2004, which summarized the key points raised by the presenters at the October meeting, as follows:

1. The feasibility of the district collecting and distributing funds for alternative fuel research and development projects, as is done in the South Coast;
2. The feasibility and implications of including greenhouse gas emissions (GHG) as an additional criteria in the evaluation of Carl Moyer projects;
3. Explore and recommend GHG emission reduction measures from mobile sources, beyond the light-duty vehicle sector;
4. Should we evaluate alternative fuels for use only by mobile sources or by mobile and stationary sources?

5. Potential incentives and programs to encourage the use of clean technology options that are available today, e.g. PZEVs, AT-PZEVs, CNG, etc.;
6. Relationship of district activities on alternative fuels and the evolution of and information gathered in the CARE program;
7. Role of district outreach and education programs in encouraging the use of alternative fuels;
8. The role of an integrated, multi-pollutant approach to evaluating incentive project funding (both for alternative fuels as well as new technologies).

She observed that one of the speakers recommended the Council advise the District to collect and distribute funds from vehicle registration fees for sponsoring alternative fuel research and development projects, and also to recommend the inclusion of greenhouse gases as a evaluation criterion for Carl Moyer projects. Another suggestion concerned developing ways to reduce greenhouse gases from stationary and other non-mobile sources.

In discussion of how vehicle surcharge fees might support alternative fuel research projects, Michael Murphy, Advanced Projects Advisor, observed that the District funds from the \$4.00 fee currently imposed by the District can be used to support projects that advance innovative technology, within the context of the adopted cost-effectiveness criteria, on a case-by-case basis. On December 21, the District's Board will vote on whether to increase this surcharge fee by \$2.00. Recently adopted state legislation gave local air districts authority to pursue additional vehicle projects, and funding may be allocated to diesel re-powering, alternative fuels, and devices that concern engine idling. There is some coordination between the Bay Area and South Coast air districts on vehicle projects, which helps to avoid duplication in research and development projects. There is also some overlap among vendors for certain projects, and the Bay Area often pursues projects in this region that may not be ideally pursued in the South Coast. The Bay Area is presently limited to funding public agencies for specific projects, and while planning and research is excluded, the District's Board can authorize demonstration projects. However, the District would need additional legislative authorization to sponsor the kind of technology advancement projects that the South Coast AQMD supports from a separate fund of vehicle registration fees.

When the District has funded projects that contain aspects of research and development, these emphasize engine technology, in concert with the Executive Order issued by the California Air Resources Board (CARB) that allows a demonstration project for an uncertified engine that holds promise to meet engine emission requirements. Typically, the manufacturers will come to a fleet user and a granting agency and petition for endorsement of a project that will include field-testing.

Mr. Lapera opined that the Joint Committee should first ascertain if enough being done in the field of research and development. Mr. Shanahan noted that considerable alternative fuels research is being conducted by CARB, the South Coast AQMD and elsewhere, driven by the Clean Air Act attainment goals. The expertise developed to date is well suited to address future opportunities in research and development. Market and commercial considerations, as well as the advent of increasingly stringent vehicle emission standards, provide opportunities for researching, developing and deploying new, and in some cases, alternative, technologies. Mr. Lapera noted that the successful commercialization of hybrid vehicles to the point at which there is a waiting list among consumers for them is indicative of the need to improve the connection between research and development, on the one hand, and market availability, on the other.

Mr. Shanahan replied that, given the vast difference between the Moyer program a few years ago and today, the question is whether or not the available funds are being spent most effectively in light of technological, public health and transit mode categories, and given the additional fact that the Moyer program now addresses particulate matter (PM) emissions. The issue may be more of “fine tuning” the funding allocations by the District. Ms. Drennen observed that it is difficult to do so without knowing the budget.

In discussion of distributing the topics identified in Dr. Bedworth’s memorandum between the two Committees, the Joint Committee reached consensus that the AQPC should focus primarily on the funding aspects and the Technical Committee on research and development, and inventory issues:

No. 1 – Funding issues are appropriate to the AQPC and the research aspects on alternative fuels from the perspective of the Bay Area is appropriate to the Technical Committee.

Nos. 2 & 8 – These are interrelated. The inclusion of greenhouses gases as an evaluation criterion for the Carl Moyer program is topical in light of discussion at the recent Board of Directors Retreat regarding this district taking on the issue of global warming. One issue concerns how the inclusion of this criterion might affect current Moyer projects and the impact on cost-effectiveness analysis, and another concerns the extent to which alternative fuels involve various trade-offs in emissions. The Technical Committee could examine the pros and cons and then present the results to the AQPC for policy analysis. This item needs to be early on the Committees’ agendas next year.

No. 3 – Since the district does not have control over mobile sources, this is largely philosophical.

No. 4 – Air districts, such as the San Joaquin Valley APCD, that have had some experience with alternative fuels should be consulted. The extent to which alternative fuels can be utilized by stationary sources is also very relevant and fits very precisely with the District’s statutory mission. European experience should be brought into the picture as well, particularly as regards bio-diesel, its negative impacts on NO_x emissions and the role of fuel additives in mitigating them. The Technical Committee should take the lead in evaluating biodiesel.

The Joint Committee agreed that the utility of alternative fuels should be assessed both for mobile and stationary sources. The first task is to review the emission inventory for stationary sources, current fuel sources and the viability of bringing alternative fuels to that market. Renewable sources of energy must also be included in the assessment. Biodiesel ranks highly as a renewable energy source but has negative impacts as regards NO_x emissions. Mr. Murphy clarified that for stationary sources, alternative fuels are evaluated through “Best Available Control Technology” (BACT) and primarily in terms of meeting engine emission requirements.

The Joint Committee agreed it must also complete its review of the list of all the alternative fuels it earlier identified for review and provide the pros and cons. The Center of Energy Efficiency and Renewable Technology (CEERT) in Sacramento is a good source of information.

Mr. Shanahan noted that the degree to which biodiesel can be merged with engine aftertreatment is deserving of technical analysis and a review of where such efforts are being conducted elsewhere. Whether it is preferable to have ultra low sulfur diesel now or await the development of Fischer Tropes diesel, is important to consider, as are the pros and cons of each approach. Mr. Glueck opined that the efficacy of the fuel must be considered along with the totality of effort it takes to produce it. The extent to which a fuel lessens dependence on foreign oil is also important.

Mr. Shanahan suggested the AQPC look into the matter of emission reduction credits for stationary sources, and to assess whether it makes sense to allow a corporation that owns a stationary source to retrofit vehicles and receive credits that allow the source to continue to pollute at a certain level. Mr. Brazil noted that in the transportation community there are also reciprocal considerations of how to get credits from the non-transportation sector. Mr. Hanna suggested that credit ought to be given to a manufacturer that gets half of its workforce to take public transit to and from work.

Nos. 5 & 7 – The Joint Committee agreed that these were linked and should be taken up by the AQPC. The addition of the District’s Community Relations Manager is important in this respect.

No. 6 – This topic contains technical issues that lead to public health considerations. This may be a longer-term issue in the Joint Committees’ review of alternative fuels.

5. **Committee Member Comments/Other Business.** Mr. Dawid requested that the meetings of the Regional Agency Coordinating Committee be listed on the Monthly Calendar of District Meetings that is issued by the Air District’s Office of the Clerk of the Boards.
6. **Time and Place of Next Meeting.** To be determined at the Advisory Council Regular Meeting and Retreat scheduled for January 12, 2005.
7. **Adjournment.** 11:45 a.m.

James N. Corazza
Deputy Clerk of the Boards

:jc