



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BOARD OF DIRECTORS
EXECUTIVE COMMITTEE MEETING

COMMITTEE MEMBERS

GAYLE B. UILKEMA – CHAIR
CHRIS DALY
JERRY HILL
JOHN SILVA
BRAD WAGENKNECHT

MARK ROSS – VICE CHAIRPERSON
ERIN GARNER
PATRICK KWOK
TIM SMITH

WEDNESDAY
SEPTEMBER 13, 2006
9:30 A.M.

FOURTH FLOOR CONFERENCE ROOM
DISTRICT OFFICES

AGENDA

1. **CALL TO ORDER – ROLL CALL**
2. **PUBLIC COMMENT PERIOD** (*Public Comment on Non-Agenda Items Pursuant to Government Code § 54954.3*) Members of the public are afforded the opportunity to speak on any agenda item. All agendas for regular meetings are posted at District headquarters, 939 Ellis Street, San Francisco, CA, at least 72 hours in advance of a regular meeting. At the beginning of the regular meeting agenda, an opportunity is also provided for the public to speak on any subject within the Committee's subject matter jurisdiction. Speakers will be limited to three (3) minutes each.
3. **APPROVAL OF MINUTES OF MAY 30, 2006**
4. **REPORT OF THE ADVISORY COUNCIL: MAY 10, 2006 - AUGUST 9, 2006**
K. Kurucz/4965
Kraig.I.Kurucz@intel.com
5. **QUARTERLY REPORT OF THE HEARING BOARD - APRIL 2006 - JUNE 2006**
T. Trumbull /4965
TerryT1011@aol.com
6. **CONSIDER AUTHORIZING THE EXECUTIVE OFFICER/APCO TO INITIATE PROGRAM WITH THE SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT**
J. Broadbent/5052
jbroadbent@baaqmd.gov

The Committee will consider recommending Board of Directors' authorize the Executive Officer/APCO to initiate a program with the Sacramento Metropolitan Air Quality Management District for joint use of Carl Moyer Program Funds for multi-regional projects as a result of amendments to SB 225.
7. **SPARE THE AIR PROGRAM UPDATE**
J. Broadbent/5052
jbroadbent@baaqmd.gov

Staff will provide an update on the activities of the Spare the Air program.

8. **COMMUNITY AIR RISK EVALUATION PROGRAM UPDATE**

H. Hilken/4642
hhilken@baaqmd.gov

Staff will provide an update of the Community Air Risk Evaluation (CARE) program.

9. **PRESENTATION ON MERCURY EMISSIONS FROM CREMATORIES**

B. Bateman/4653
bbateman@baaqmd.gov

Staff will give an informational presentation on mercury emissions at crematories.

10. **JOINT POLICY COMMITTEE UPDATE**

J. Roggenkamp/4646
jroggenkamp@baaqmd.gov

Ted Droettbomm will provide an update on the activities of the Joint Policy Committee.

11. **COMMITTEE MEMBER COMMENTS/OTHER BUSINESS**

Any member of the Committee, or its staff, on his or her 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 concerning any matter or take action to direct staff to place a matter of business on a future agenda. (Gov't Code § 54954.2).

12. **TIME AND PLACE OF NEXT MEETING AT THE CALL OF THE CHAIR**

13. **ADJOURNMENT**

**CONTACT CLERK OF THE BOARDS - 939 ELLIS STREET
SAN FRANCISCO, 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 at least three working days prior to the date of the meeting so that arrangements can be made accordingly.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Memorandum

To: Chair Uilkema and Members of the Executive Committee
From: Jack P. Broadbent
Executive Officer/APCO
Date: August 17, 2006
Re: Executive Committee Draft Minutes

RECOMMENDED ACTION:

Approve attached draft minutes of the Executive Committee meeting of May 30, 2006.

DISCUSSION

Attached for your review and approval are the draft minutes of the May 30, 2006 Executive Committee meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

**Bay Area Air Quality Management District
939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000**

DRAFT MINUTES

Summary of Board of Directors
Executive Committee Meeting
9:30 a.m., Tuesday, May 30, 2006

1. **Call to Order - Roll Call:** Vice-Chair Mark Ross called the meeting to order at 9:44 a.m.

Present: Gayle B. Uilkema (9:58 a.m.), Chair, Chris Daly, Jerry Hill (10:01 a.m.), Patrick Kwok, Mark Ross, John Silva, Tim Smith.

Absent: Erin Garner, Brad Wagenknecht.

2. **Public Comment Period:** There were no public comments.

3. **Approval of Minutes of February 16, 2006:** Director Daly moved approval of the minutes; seconded by Director Kwok; carried unanimously without objection.

4. **Quarterly Report of the Hearing Board – January 2005-March 2006:** In the absence of Hearing Board Chairperson Tom Dailey, Jack Broadbent, Executive Officer/APCO presented the *Hearing Board Quarterly Report – January 2006 – March 2006*. Mr. Broadbent noted that the Hearing Board held its election of officers and Dr. Dailey was elected Chairperson and Christian Colline was elected Vice-Chair. Dr. Dailey wished to extend his thanks to the Board of Directors for the proclamation that will be presented to retiring Hearing Board member Bob Saxe.

Committee Action: None. This report provided for information only.

5. **Report of the Advisory Council: March 22 – April 12, 2006**

Kraig Kurucz, Advisory Council Chairperson, presented the report and thanked Board Chair Uilkema for attending the last Advisory Council meeting. Mr. Kurucz noted that the Committees and Council have heard presentations on the Community Air Risk Evaluation (CARE) Program, woodsmoke, and asthma. On May 18th, new members of the Council were given an orientation and tour of the Air District. Mr. Kurucz provided a brief update on the following topics: particulate matter, woodsmoke, climate change, good movement, asthma, and the CARE Program.

Chair Uilkema arrived at 9:58 a.m.

There was discussion on the issue of the role of the Council regarding outreach to the community. Mr. Kurucz noted that all of the Council and Committee meetings are open to the public and that the membership of the Council is diverse.

Director Jerry Hill arrived at 10:01 a.m.

Mr. Kurucz suggested that staff from the District's Outreach and Incentives Division attend the next Council meeting.

Committee Action: The Committee provided direction to the Advisory Council regarding outreach to the community. The report was received and filed.

6. The United States Environmental Protection Agency's Proposed Revisions to National Particulate Matter Standards: *Staff provided the Committee with an overview of proposed revisions to the national ambient air quality standards for particulate matter.*

Henry Hilken, Director of Planning, Rules & Research, introduced the item and stated that earlier this year, the Environmental Protection Agency (EPA) proposed revising the national ambient air quality standards and air monitoring requirements for particulate matter (PM).

David Vintze, Air Quality Planning Manager, presented the report and provided background information on particulate matter. Mr. Vintze reviewed EPA's proposed new standards for particulate matter, the new air quality standards implementation schedule, the background of PM monitoring in the Bay Area, proposed changes to PM monitoring requirements, and implications for Air District programs.

A comparison was shown of the proposed 24-hour National Standard and the current 24-hour National Standard. The Air District also submitted written comments to EPA on the proposed changes. There was discussion on consequences if the District did not meet the new standards and what actions would need to be taken. Chair Uilkema requested that a copy of the letter to EPA be sent to each Board member.

Committee Action: None. This report provided for information only.

7. Status Report on Carl Moyer Funding Formula: *Staff provided a status report on the methodology for allocating Carl Moyer Program funds to the Bay Area and other regions.*

Mr. Broadbent provided a status report and stated that the California Air Pollution Control Officers Association (CAPCOA) has been in discussions regarding how the formula could be amended to emphasize that the allocation be population-based. CAPCOA also reviewed ways to implement these changes to the allocation formula. A change in the allocation formula based on population would allow an additional \$2 million to come to the Bay Area.

Committee Action: None. This report provided for information only.

Mr. Broadbent explained that a bill regarding the Carl Moyer Program funds is being carried by Senator Soto (SB 225) and would need a support position from the Air District. The Air District will write a letter, from the Board Chair, expressing a support position on this bill.

Chair Uilkema requested that the Legislative Committee look at this issue.

- 8. Joint Policy Committee Update:** This item was deferred to the next meeting of the Committee.

Mr. Broadbent noted that at the next Joint Policy Committee meeting the issue of incompatible land use and air quality may be discussed.

- 9. Committee Member Comments/Other Business:** Director Silva noted that at the time the Pacific Steel Casting facility was built, there were not a lot of Environmental Impact Reports (EIRs) being done. Director Silva stated that the community should be made aware that this Air District does respond to EIRs.
- 10. Time and Place of Next Meeting:** At the Call of the Chair.
- 11. Adjournment.** The meeting was adjourned at 11:01 a.m.

Mary Romaidis
Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Uilkema and Members of the Board Executive Committee
From: Kraig Kurucz, Chairperson, Advisory Council
Date: August 13, 2006
Re: Report of the Advisory Council: May 10 – August 9, 2006

RECOMMENDED ACTIONS:

Receive and file.

DISCUSSION:

Presented below are summaries of the key issues discussed at meetings of the Advisory Council and its Standing Committees during the above reporting period.

- a) Regular Meeting of May 10, 2006. The Council received a presentation from Cindy Tuck, Assistant Secretary for Policy, California Environmental Protection Agency, regarding goods movement in California. It also received and discussed its Standing Committee reports and the report of the Executive Officer.
- b) Public Health Committee Meeting of May 10, 2006. The Committee received presentations from representatives of Hearth Products & Patio Association and the North Bay Association of Realtors in its discussion of wood smoke abatement and implementation of model wood smoke ordinances.
- c) Air Quality Planning Committee Meeting of June 14, 2006. The Committee received a presentation from Marin County Planning staff on the update of the County General Plan to include reference to climate change.
- d) Technical Committee Meeting of June 14, 2006. The Committee received a presentation from Committee member Sam Altshuler, P.E., on particulate matter based on information presented at a recent conference in the South Coast AQMD.
- e) Regular Meeting of July 12, 2006. The Council received a presentation on key regulatory issues facing the state from California Air Resources Board Chair Robert Sawyer, Ph.D. The Council also received and discussed its Standing Committee reports and the report of the Executive Officer.
- f) Air Quality Planning Committee Meeting of August 9, 2006. The Committee received staff presentations on methane gas recovery at landfills and the revision of District guidance on the inclusion of climate change categories and air quality elements in local general plans and the California Environmental Quality Act review process.

- g) Technical Committee Meeting of August 9, 2006. The Committee received a staff update on the District's Community Air Risk Evaluation (CARE) program.

Respectfully submitted,

Kraig Kurucz
Advisory Council Chairperson

Prepared by: James N. Corazza

Reviewed by: Mary Romaidis

FORWARDED BY: _____

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

APPROVED MINUTES

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

CALL TO ORDER – ROLL CALL

Opening Comments: Vice-Chairperson Glueck called the meeting to order at 10:00 a.m.

Roll Call: Present: Fred Glueck, Vice-Chair, Cassandra Adams, Sam Altshuler, P.E., Ken Blonski, Robert Bornstein, Ph.D., Jeffrey Bramlett, Harold M. Brazil, Irvin Dawid, Emily Drennen, William Hanna, Stan Hayes, John Holtzclaw, Ph.D., Janice Kim, M.D., Steven Kmucha, M.D., Karen Licavoli-Farnkopf, MPH, Ed Proctor, Linda Weiner.

Absent: Louise Bedsworth, Ph.D., Kraig Kurucz, Chairperson, Brian Zamora.

PUBLIC COMMENT PERIOD: There were no public comments.

CONSENT CALENDAR:

1. **Approval of Minutes of March 22, 2006.** Dr. Bornstein moved approval of the minutes; seconded by Ms. Adams; carried unanimously.

COMMITTEE REPORTS:

2. **Public Health Committee Meeting of April 11, 2006.** Mr. Bramlett stated that the Committee received reports from Puget Sound and San Joaquin Valley air district staff on wood smoke abatement. The speakers noted that the process for addressing wood smoke requires patience over the long-term. Ms. Weiner added that the speakers urged that the discussion of wood smoke focus on smoke and not the combustion unit. Later today, the Committee will meet to receive presentations on wood smoke abatement from members of the Hearth Products, Patio & Barbeque Association and the North Bay Association of Realtors.

Mr. Altshuler inquired if health risk assessment has ever been applied to wood smoke. Mr. Bramlett suggested that the Public Health Committee could follow-up on this question. Mr. Dawid inquired if there is a ban on outdoor burning of leaves in the Bay Area. Mr. Bramlett replied that the District's Regulation 5 on Open Burning prohibits this kind of activity.

3. **Air Quality Planning Committee Meeting of April 12, 2006.** Mr. Hayes stated that the Committee received a presentation from Abby Young from the International Council on Local Environmental Initiatives—now known as Local Governments for Sustainability—on climate protection activities at the local level. Mr. Hayes referred the Council members to the minutes in today's agenda packet which set forth the details of the presentation. The Committee discussed possible areas of climate protection activities for recommendation to the full Council.

One topic that has emerged is the possible creation of a carbon footprint for the Committee. Environ International Corporation has conducted a corporate carbon footprint—the emissions contents of which are comprised primarily of employee travel data—in attempting to offset its carbon emissions. In applying this approach to the Committee, climate protection and the setting of an emission reduction target would be brought to the personal level using the ICLEI process. Mr. Dawid noted that the Loma Prieta Chapter of the Sierra Club has posted a carbon footprint calculator on its website. He added that a number of local governments have dropped out of the California Climate Action Registry. This is an issue that requires further investigation.

4. **Report of the Technical Committee Meeting of April 12, 2006.** Dr. Bornstein stated the Committee received a presentation from Amy Luers of the Union of Concerned Scientists (UCS) on global warming in California. She reviewed the impacts of projected higher temperatures on various environmental, agricultural and economic sectors in the state. The details of the lecture are provided in the minutes in today's agenda packet. The Committee's future directions—based on the topics of climate change, particulate matter (PM) research and the Community Air Risk Evaluation (CARE) program—that were adopted at the Council Retreat in January, will be discussed in the context of where these overlap with the work of the other Committees. Mr. Hayes inquired as to the status of the Community Air Risk Evaluation (CARE) program. Peter Hess, Deputy APCO, stated that the preliminary draft results should be ready for review by the end of July, and the AQPC and Technical Committees should consider jointly receiving a presentation on these results at that time.
5. **Report of the Executive Committee Meeting of May 10, 2006.** Vice-Chair Glueck stated that the Committee met earlier this morning and briefly reviewed today's Committee reports.

PRESENTATION

6. **California Goods Movement Action Plan.** Cindy Tuck, Assistant Secretary for Policy at the California Environmental Protection Agency (Cal-EPA) presented "California Goods Movement Action Plan," stating that Cal-EPA is developing this Plan with the California Business Transportation and Housing Agency (CBTHA). The concept is to develop an integrated Plan that addresses infrastructure, public health, environmental impact mitigation, community impact mitigation, workforce development, and port security. A cabinet level work group was formed and is chaired by Secretaries Alan Lloyd of Cal-EPA and Sunne Wright McPeak of CBTHA.

At the end of 2004, a policy statement for the Plan was issued which declared that "the State's economy and quality of life depend on the efficient, safe delivery of goods to and from our ports and borders. At the same time the environmental impacts from goods movement activities must be reduced to ensure protection of public health." Public health and environmental issues must both be addressed. Goods movement is not limited only to ports: it encompasses the delivery to ports and the subsequent distribution of goods throughout four major corridors in California.

Listening sessions were held around the state early in 2005, and later in September a Phase I "Foundations" report was issued which addressed four key regions and corridors in the State: Los Angeles-Long Beach, Bay Area, Central Valley, and San Diego. The assessment took account both of port and rail activities, and addressed various needs and challenges in infrastructure, environmental impact mitigation, community impact mitigation, workforce development, security and public safety, and innovative finance and alternative funding.

Input from regulators and the community was sought on all of these categories. Emission source information was obtained for cargo handling equipment, ships, harbor craft, locomotives, diesel trucks and airplanes. Trucks are now the largest source of emissions, but these will be surpassed by emissions from ships by the year 2020.

The preliminary findings on air pollution issued in the September 2005 report indicate that even if no growth is expected from trade, the current emissions from goods movement constitute a significant contribution to air pollution. Another finding was that future emissions are expected to increase unless aggressive action is taken to turn current trends around, especially as the number of containers coming into California is expected to triple by 2020. With regard to health effects, the report projects an increase in cancer risk and non-cancer respiratory and cardiovascular effects. The report also forecasts a significant increase in the cost of mitigating adverse air quality effects. A December 2005 estimate of the cost of mitigation ranged between \$2-5 billion, while a revised estimate for the statewide Plan increases this to \$6-10 billion.

The Phase II portion of the Plan identifies the actions needed to address the challenges presented in the Phase I report, and the Action Plan was the outcome of this analysis. The public process includes the Governor, to whom the Cabinet Work Group reports. In turn, the Integrating Work Group—which is comprised of five groups: Public Health and Environmental Impact Mitigation, Infrastructure, Innovative Finance & Alternative Funding, Homeland Security & Public Safety, Community Impact Mitigation and Workforce Development—reports to the Cabinet Work Group. The Emission Reduction Plan that has been developed by the Air Resources Board (ARB) is integrated into the Public Health & Environmental Impact Mitigation group, and is an added key component for environmental mitigation and public health issues. The Integrating Work Group has been regularly conducting meetings and will meet again in June. Meetings have been held in more highly impacted communities near ports and rail yards and public comment has been received. There are approximately 40 participants in this Group.

Phase II produced the “Framework for Action” which was the predecessor document to the Action Plan. Three drafts were issued, in December 2005, February 2006 and March 2006. The report addressed environmental challenges and included summary information on air quality, water quality and hazardous waste. It also included an overview of issues as background, draft principles developed by the Work Group, draft criteria for how actions will be selected, draft metrics for the evaluation of actions after implementation, and a draft list of actions. More specifically, on the draft actions, they cover infrastructure, public health and environmental mitigation, community impact mitigation and workforce development and public safety at ports.

The ARB Emission Reduction Plan is extensive and its first draft was issued in December 2005. It was revised in March and approved by the ARB on April 20, 2006. It addressed diesel PM, nitrates and sulfates that form particles in the atmosphere, and ozone—with a focus on the contribution of nitrogen oxide (NO_x) and reactive organics to ozone formation. The Plan estimates that diesel PM is the pollutant of the greatest concern in terms of statewide emissions from goods movement, with 70% of statewide diesel emissions deriving from goods movement.

In terms of health issues, ARB studies in October of 2005 calculated increased lifetime cancer risk for the population near the ports of Los Angeles and Long Beach. An ARB study in October of 2004 found increased life cancer risk for the year 2000 at the Roseville rail yard.

The goals of the Emission Reduction Plan are:

- By 2010, to reduce emissions from goods movement to the greatest extent possible and at least back to 2001 levels.
- By 2015, to reduce South Coast NO_x 30% and by 50% in 2020 (these are preliminary targets).
- Apply strategies statewide to aid all regions in attaining standards. (This demonstrates that the ARB is a statewide plan).
- Reduce diesel PM cancer risk by 85% by 2020.
- Reduce localized risk in communities adjacent to goods movement facilities. (This goal is also consistent with the District's CARE program).

The Emission Reduction Plan sets forth strategies to achieve its goals, and to take the elements from the goods movement plan and incorporate them into the State Implementation Plan (SIP) elements by early 2008. The next steps are to revise the March 24 draft of the Plan, release it in June, convene an Integrating Work Group meeting in June, and then finalize the Action Plan.

There are linkages to this effort in the SB1266 bond package (Perata) which proposes \$1 billion for emission reductions from activities related to movement of freight along trade corridors. It is intended as incentive funding for areas that are not reached by broader regulatory measures. These funds must be appropriated by the Legislature, which will promulgate allocation criteria.

In reply to questions, Ms. Tuck stated:

- cost/benefit analysis for the measures proposed in the Plan is a future feature of the rule-making. There will be a "price tag" for each infrastructure project. However, the listed projects are still in draft form and have not yet been approved.
- A chapter on greenhouse gases (GHGs) may be included in the report, but the focus was on criteria pollutants. The State has a Climate Action Team, which has discussed the mandatory reporting requirement for GHGs from local entities.
- emergency response issues for the ports are being worked on by a Group in the plan development that is addressing port security and emergency preparedness.
- among the largest element of the \$6-10 billion in air pollution mitigation costs is the clean-up of truck transport to and from the ports.
- the lack of regulation of ship emissions even at the international level is of concern, and a proposal under consideration is placing conditions on ships that come into the ports.
- there is a need to increase the placement of containers on trains, and to improve railroad track beds as well as the placement of containers on trains at the dock. CARB is promoting these. Review of short sea shipping is underway, pending further environmental evaluation.
- the report addresses "other critical issues" in Chapter VII regarding land-use, and this addresses the issue of sprawl and increased densification for in-fill development.

- diesel emissions will decrease by 2020 due to new and more stringent truck emission standards and fleet turnover.
- coordination of ship arrivals with the ebb and flow of tides has been considered for port expansion project work in the City of Pittsburg.
- the estimation of environmental mitigation costs did take into account cost savings on health care in the context of avoiding lost work days. The Plan proves to be cost-effective when its medical benefits are factored into the overall cost/benefit analysis.
- technology is being considered as a mitigation measure by the Ad Hoc Group on Technology with regard to effective movement of goods at the port. Ms. Weiner noted that at a recent climate change meeting in San Francisco, a panel addressed this issue and provided an update on the relevant research currently being conducted in Silicon Valley.

AIR DISTRICT OVERVIEW

7. Report of the Executive Officer/APCO. Jack P. Broadbent, Executive Officer/APCO, introduced Gayle B. Uilkema, Chair, Air District Board of Directors, who stated:

- the Budget & Finance Committee today forwarded the proposed Budget for FY 2006-07 to the full Governing Board for review and approval.
- the Governing Board is sensitive to the issues the Council is discussing, including diesel emissions, refinery flaring, and emissions from port activities.
- the Governing Board appreciates the Council's devotion of time and effort in serving the Air District and in providing advice to the Governing Board. The Council should reach out to the public and be reflective of the public's concerns.
- in county supervisory activities, there is a common theme of health, safety and welfare. The Council needs to keep these criteria in mind in its deliberations and recommendations.

Mr. Broadbent stated that:

- the District is gearing up for the summer Spare the Air program. It will cover three full work days of free commutes with public transit funding. This effort is being conducted in partnership with the Metropolitan Transportation Commission (MTC) and almost every transit operator in the Bay Area. The free transit days will be offered for those days when an ozone excess is predicted the previous day. With regard to the wintertime Spare the Air Tonight season, no advisories were called as PM levels were low due to the high level of precipitation.
- the proposed Budget will continue the core programs of the District, with slight (8%) fee increases contemplated for certain schedules on certain schedules.
- due to air quality concerns at the Port of Oakland, the District has started to engage the Port in collaboration with MTC and local communities to discuss the pooling of resources to mitigate port-related emission activities and develop a Bay Area Goods Movement & Air Quality Plan. This will complement the State plan. The District has funded Carl Moyer projects in the Port, and will endeavor to get more trucking activities involved in retrofits.

Jean Roggenkamp, Deputy APCO, stated that:

- the Program Manager position for the CARE program has been filled by Dr. Phil Martien from the District.
- for the District's Climate Protection Leadership Program, the Board adopted a six-initiative approach. It includes moving forward with a climate protection planning summit in September based on recommendations from a steering committee which has met three times and will meet again. The District has released an RFP to identify and evaluate different GHG emission reduction processes and technologies, as an informational tool. Staff is reviewing the proposals and a contractor will be selected soon. The District will also integrate climate protection into its other programs. Staff will include an energy and climate protection component in the District's comment letters issued in the context of the California Environmental Quality Act (CEQA) process. For grant programs under the Transportation Fund for Clean Air (TFCA) the District will evaluate both CO₂ emissions and criteria pollutants, and on Monday of next week, the Mobile Source Committee will consider adopting a CO₂ criterion for inclusion in ranking and evaluating TFCA projects.

Mr. Hess stated that the State Legislature has removed exemptions from the agricultural permit process, and staff has now put together a regulatory package to include agricultural operations in its permit system. Workshops on the new rule are being planned for the near future. He added that at the June meeting of the Air & Waste Management Association in New Orleans, he will host an open house in the Presidential Suite at the Hilton.

In reply to Council member questions and comments, executive management replied as follows:

- the deferral of the CARE pilot project is due to the District's current focus on the emission density graphs for the region and the assessment of areas with high potential for exposure to emissions. There are also new issues regarding the Port of Oakland that must be reviewed in the immediate future. The pilot project is therefore going to be held in abeyance.
- proposed new guidelines for the Transportation Fund for Clean Air (TFCA) will be presented to the Mobile Source Committee on May 15, and have received public comment. The largest change is that state law governing TFCA funding now allows both private and public agencies to submit projects for funding from the Regional TFCA fund.
- with regard to controversy in Napa County over the absence of a PM_{2.5} monitor, the District has used its air quality models and larger measuring devices to assess the PM issues there, which is the only county to date that has not adopted the District's model wood smoke ordinance. The District will continue its outreach to that county regarding the ordinance.
- staff will continue to review the literature on the significance of ultrafine particles in exposure to the public, including the information provided at a recent conference at the South Coast AQMD on ultrafine particles. There is a great deal of research currently regarding nanoparticles and the measurement of PM not on the basis of a mass basis but on the number of particles per a specified volume of air. The Advisory Council may want to consider receiving presentations on the state of research in this area and prepare its own recommendations. Mr. Altshuler volunteered to compile some summary slides and make a presentation for the Council after the South Coast AQMD completes the Proceedings disk.

Ms. Weiner added that EPA held three conferences on the PM standards and is considering making the standards more stringent. Many speakers addressed the EPA at these conferences. There is a wealth of expertise on PM in the Bay Area. Mr. Hayes urged the Council to receive a presentation on new developments in the PM field. PM is a key element in the Council's work plan this year. There is enormous potential implications for source attribution and understanding of the emission inventory if the form of the standard shifts from a mass basis to a particle per volume ratio.

- the CARE program will assess which communities are disproportionately impacted. The results could lead to the adoption of other policies which may be directed to specific communities to help reduce their relative exposure risk and increase funding for targeted emission mitigation. The District participated in the creation of ARB's guidelines for land-use, exposure and siting. The Bay Area is an increasingly dense area, in which there is advocacy for in-fill development and affordable housing near transit stations and hubs.

OTHER BUSINESS

8. Report of Advisory Council Chair. Vice-Chairperson Glueck stated there was no report.

9. Council Member Comments/Other Business. There were no further comments.

10. Time and Place of Next Meeting. 10:00 a.m., Wednesday, July 12, 2006, 939 Ellis Street, San Francisco, CA 94109.

11. Adjournment. 11:58 a.m.

James N. Corazza

James N. Corazza
Deputy Clerk of the Boards

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

DRAFT MINUTES

Advisory Council Public Health Committee Meeting
12:30 p.m., Wednesday, May 10, 2006

1. **Call to Order – Roll Call.** Chairperson Bramlett called the meeting to order at 12:30 p.m. Present: Jeffrey Bramlett, Chairperson, Cassandra Adams, Steven Kmucha, M.D., Karen Licavoli-Farnkopf, MPH, Linda Weiner. Absent: Janice Kim, M.D., Brian Zamora.
2. **Public Comment Period.** There were no public comments.
3. **Approval of Minutes of April 11, 2006.** Dr. Kmucha moved approval of the minutes; seconded by Ms. Adams; carried unanimously.
4. **Wood Smoke Abatement Efforts.** John Crouch, Director of Public Affairs of the Hearth, Patio & Barbeque Association (HBPA) presented “Wood Smoke Abatement Program Applications,” stating that he would focus on developments in the field of appliance change-outs, both locally and nationwide. He indicated that hearth products fall into two categories: (a) heating (wood stoves, pellet stoves, gas hearth products, and others—such as electric, oil, and corn stoves) and (b) decorative products (wood – open fireplaces, and also gas and electric appliances). With respect to the latter, an open wood burning fireplace is primarily a decorative feature in most houses. In wood burning surveys, some individuals note that their fireplace is primarily decorative but also a secondary heating source. Others may only use their fireplace on major wintertime holidays. A number of heating appliances come as a free-standing item or as an insert for a fireplace, and are known as “aftermarket” products. Inserts include a gas heating element, and a pellet or woodstove insert. In phone surveys of homes, responses vary considerably such that residents identify a fireplace with an insert as a single unit, or as two separate units.

Operating assumptions for air quality and hearth products from the hearth products industry are that metropolitan areas contain substantially more fireplaces than wood stoves or inserts but that the inserts are also used substantially more than open fireplaces. Some open fireplaces are not used at all. Approximately 85-90% of wood stoves on a nationwide basis are pre-Environmental Protection Agency (EPA) certified. As much as 50% of Bay Area wood combustion units are not certified. In 1990, the HBPA conducted a change-out program in Seattle, and a similar program in Northern California/Southern Oregon. There have been modest industry discounts provided for such change-out programs but little public funding has been forthcoming. The California Energy Commission has offered funding for change-out programs for emission offsets.

The EPA has created a “change-out team” to coordinate change-out programs nationwide. It models its approach on diesel engine retrofit programs. It has held workshops, at times co-located with HBPA trade shows, on wood appliance change-out products and strategies.

EPA has reached out to state and local tribes in this program, and has upgraded its wood burning data on its website. It has issued guidance on State Implementation Plan (SIP) credits. It also has instituted a national woodstove change-out campaign with program elements that focus on raising awareness, developing partnerships, targeting specific areas and providing tools for program work. EPA uses a slide at the National Chimney Sweep Guild to educate viewers on the importance of addressing wood smoke emissions. It indicates that approximately 80% of fine particle (PM_{2.5}) pollution derives from woodstoves. This total exceeds the total PM_{2.5} emissions from petroleum refineries, cement manufacturers and pulp and paper plants.

On-going or completed woodstove change-out campaigns in 2005 were conducted in Libby, Montana; Southwest Pennsylvania; Washoe County, Nevada; Butte County, California; Christiansburg, Virginia; Darrington, Washington; Whatcom/Island County, Washington; Swinomish Tribe, Washington; Questa, New Mexico; Yakima, Washington; and Delta County, Colorado. Similar campaigns are planned in 2006/2007 in Washington County, Ohio; Sacramento and San Joaquin, California; Oakridge, Oregon; Christiansburg, Virginia; Whatcom/Island County, Washington; Swinomish Tribe and Yakima, Washington; Libby Montana, Greenville; South Carolina, Hagerstown; Maryland, Central Washington, Maine; Rutland, Vermont; New Jersey, Minnesota; Catawba County, North Carolina and Oneida Nation, Wisconsin. The HBPA is soliciting interest in a “state wide” change-out this winter in California and would welcome District participation. In 1999, the District got PG&E to include a two-sentence statement on electricity bills in Northern California/Central California that resulted in the change-out of many wood stoves. This was not costly for the District.

In Libby, Montana there is a “Whole Town” change-out of wood burning appliances underway. As there is no natural gas in Libby, there is considerable wood burning during cold weather that contributes to 82% of total PM_{2.5} in the area. Through assistance from the HBPA, the EPA and federal funding, all stoves in Libby will be changed-out over a two-year period. In late 2007, data from “before” and “after” PM monitoring will be analyzed and compared.

Key elements of wood stove change-out programs include the verification of the emission reductions, the provision of financial incentives for change-out, and public education. In Libby, the HBPA is providing free-of-charge over 300 EPA-certified stoves to low-income families. Some public resources are being applied in the form of Supplemental Environmental Projects (SEPs) funds as well as emission offset programs.

Rising energy costs have created major challenges to wood burning appliance change-out programs because there is a greater interest in supplementing home heating with wood due to anticipated increases in home heating costs. Old wood stoves and inserts do not break and consumers do not shop for replacements as with electric appliances. Incentives must therefore be larger to trigger change-outs. However, with the heightened awareness about increasing energy and fuel costs, access to the media on heating and energy costs is much easier.

Mr. Crouch added that change-out campaigns, in order to maximize effectiveness, must be sponsored by both public and private funding. Media attention is also crucial to program effectiveness. Targeted funding of change-out programs to areas with higher incidences of asthma is an area for future consideration. EPA certification applies to wood stoves, but not to fireplaces, pellet stoves, masonry heaters and outdoor wood furnaces. To expand the jurisdiction of certification over other appliances and units, EPA would have to reopen its new source performance standards process.

Kathy Hayes, Government Affairs Director, North Bay Association of Realtors, stated that having participated in local community discussions on the change-out of wood burning appliances in the home at the point of its sale, and having observed how local government policy is moved forward on this field, she believes that point-of-sale is both challenging and problematic. It not only takes a long time to implement but also places a huge responsibility and liability on the real estate industry. It takes 25 to 40 years for an entire housing stock to turnover, and this does not provide a rapid response to air quality, health and safety issues. It also leads to the inequitable treatment of property, with one house regulated and another house unregulated. It also makes the realtor a *defacto* employee of whatever agency or group is imposing the rule, and the work that is done is without compensation for the real estate representatives. Evaluation of wood burning appliances in the home, under any wood smoke ordinance with a point-of-sale provision, becomes a liability on the real estate community and becomes an inherent part of the escrow process. It encumbers a real estate transaction with additional inspections, inspection fees, and other processes which could take multiple weeks to schedule and accomplish, depending upon the jurisdiction.

Point-of-sale has had various applications. The City of Santa Rosa has chosen different paths to address health and safety, or water conservation issues, and has not included point-of-sale in these. The City of Marin adopted a point-of-sale ordinance for water conservation devices in homes, but it later repealed it as it was too slow, too bureaucratic and too great a burden on realtors. The Las Galinos Municipal Service District repealed a similar point-of-sale approach for water conservation units. The City of Sebastopol adopted a point-of-sale program for wood burning appliances in homes that included a community wide “don’t use” policy. This posed a major problem for its real estate community, which found itself saddled with work that belonged to the City: preparing forms for implementing the ordinance and setting deadlines for the submission of paperwork. The City had not developed any guidance for the implementation of the policy, and some procedures that the City had committed to developing have yet to be developed. Liability issues created by the policy lead to lawsuits against realtors. Many escrows were completed without any wood burning appliance change-out occurring. Although realtors were not the moving party in the point-of-sale requirement, they were nevertheless named a party to a lawsuit concerning certain property sales.

The City of Santa Rosa instead implemented a community wide “can’t use” policy. It did not ask for a wood burning appliance insert, but instead created an honor system approach to compliance. Santa Rosa took its lead from a model that advocated water conservation devices, with similar discussion attempting to provide incentives for the purchase and installation of water-conserving toilets on a community-wide basis. Citizens could pick up free toilets from the city and have them installed. Paying the plumber to install the water-saving devices turned out to be less expensive than the overall costs involved in the point-of-sale approach.

Several years ago the City of Truckee passed a point-of-sale ordinance. One-third of all the homes had a woodstove or fireplace insert that was not EPA-certified. The implementation date of the point-of-sale ordinance was extended several times due to the time and expense to train staff and to discuss the implementation problems with the real estate community. Since that time the City of Truckee reconsidered and rescinded the ordinance and elected instead to require the change-out of wood burning appliances in all homes over a five-year period. The City of Truckee will be divided into five quadrants, and priority for change-out will be given to those areas determined to have the largest wood smoke problem. Within five years, the entire community will be retrofitted. This will allow the air quality staff and inspectors one

concentrated area per year on which to focus. Homeowners must certify that they are in compliance. A non-certified stove must be replaced or removed, and regulatory staff will then have to follow-up to ensure this is done.

Community education must also be a part of any Bay Area-wide campaign. Although one speaker who addressed the Public Health Committee in April opined that the public is well educated on wood smoke issues, that viewpoint may not be shared by others. Ms. Hayes added that she has learned a great deal over the last several years about wood smoke on both a family and professional level, and the choices she would make now about wood smoke are different from ones she would have previously made. The need to get quality information out to the public about wood smoke, and in a coordinated fashion with all stakeholders to the process, cannot be sufficiently emphasized. With the right data, citizens will make informed choices.

It is premature to move into any regulatory mode without having maximized public education. Ordinances such as the one implemented in Sebastopol are less preferable to a universal change-out program such as the one which the City of Truckee is implementing. The question of accurately measuring the impact of any program or regulation is important to the total wood smoke abatement effort.

Ms. Hayes concluded that there are alternatives to point-of-sale that treat every home equally and provide a much bigger result for the investment in dealing with wood burning appliances. The real estate community is interested in working with the Air District to come up with an approach to wood smoke abatement that does not unduly impact realtor industry.

In reply to questions, Ms. Hayes noted that in any discussion with regulators, two issues must be addressed: the use of the real estate community staff as *defacto* employees to the regulatory process, and the matter of liability in suits over housing and property. From a health and safety point of view, point-of-sale is not an effective or timely approach. A more viable approach would be phased-in, beginning with education and moving to a “can’t use” policy, and thereafter to a universal change-out program that moves through a community and indicates to residents that if they obtain a certified device, they have plenty of time in which to make the change, and that financial incentives are available to them in order to achieve this goal.

Chairperson Bramlett directed that at the next meeting the Committee will discuss an initial draft of possible recommendations which will be refined and then presented to the Council.

5. **Committee Member Comments/Other Business.** There were none.
6. **Time and Place of Next Meeting.** The June 13, 2006 meeting was canceled. Chairperson Bramlett directed that members be surveyed as to their availability on future suggested dates.
7. **Adjournment.** 2:04 p.m.

James N. Corazza
Deputy Clerk of the Boards

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

APPROVED MINUTES

Air Quality Planning Committee
9:30 a.m., Wednesday, June 14, 2006

- 1. Call to Order – Roll Call.** Chairperson Hayes called the meeting to order at 9:40 a.m. Present: Stan R. Hayes, Chairperson, Ken Blonski, Irvin Dawid, Emily Drennen, Fred Glueck, John Holtzclaw, Ph.D., Kraig Kurucz, Ed Proctor. Absent: Harold Brazil.
- 2. Public Comment Period.** There were no public comments.
- 3. Approval of April 12, 2006 Minutes.** Ms. Drennen moved approval of the minutes; seconded by Dr. Holtzclaw; carried unanimously.
- 4. Marin County General Plan Update:** Dawn Weisz, Sustainability Planner, County of Marin, stated that she would review the County’s update of its General Plan and Environmental Impact Review process that are addressing climate change concerns. She added that every municipality in the country should have a general plan that is updated every decade.

The first Marin Countywide Plan (CWP) was adopted in 1973 and was seen as a visionary document. It established environmental corridors—coast, inland rural, and the city-centered—which allows concentrations on jobs, housing and transit within the County, and assists in identifying and defining air quality issues. Another corridor (“Baylands”) will be set aside primarily as wetlands and open space, with some flexibility for sparse development.

Marin County has a population of 250,000 people, with 84% of its land being open space and parks, 11% developed and 5% is potentially developable—although much of the latter is hill-side or marsh. The theme of the CWP is planning sustainable communities, with guiding principles that emphasize alignment of the built environment and socioeconomic activities with the natural systems that support life; adaptation of human activities to the constraints and opportunities of nature; and meeting the needs of the present and the future.

In 2000, the County conducted an analysis of its “ecological footprint”—that is, of how much land is used to provide resources per person—and calculated an average of 24.7 acres per person. The national average is 24 acres per person. Italy’s ecological footprint is 9.5 acres per person. The average ecological footprint on the planet is four acres per person.

The composition of the County’s greenhouse gas emissions (GHGs) inventory, as analyzed in 2003, indicates that transportation contributes 50%, the residential sector 24%, the commercial sector 16%, agriculture 6% and waste 3%. The integration of environment, economy and social-equity will be used throughout the CWP in its policies, programs and goals.

The CWP contains three primary elements: natural systems and agriculture, the built environment, and the socioeconomic context. The natural systems element includes such topics as biological resources, water resources, environmental hazards, atmosphere and climate, open space, trails and agriculture/food. The Bayfront Conservation Zone is proposed in the east side of the county, with greenbelts and community separators included for the extended protection of prominent ridgelines. Agricultural zones will be expanded and there is an increase in organic food production in the county.

For the built environment, the CWP addresses community development, design, energy and green building, mineral resources, housing, transportation, noise and related issues. Key elements include promoting affordable employee housing units, focusing on mixed use commercial areas, placing housing and jobs near transit. The improvement of the Marinwood and Strawberry Shopping Centers toward a mixed-use scenario with improved pedestrian access is intended.

The socioeconomic element includes interactions of people in economy, childcare and the broader social field. Economic programs that are promoted include targeted businesses, especially those considered green and clean, and that give back to the community and implement socially responsible business practices. Diversity is assessed in terms of ethnic diversity, participation by minorities, public health analyses that link land use planning and public health and promotion of healthy lifestyles, and emergency services.

Programs under development include *Cities for Climate Protection Campaign*—which is now in the phase that develops an implementation plan to reduce carbon emissions; a *Million Solar Roofs Program*, and a *Green Business Program*. The County's Residential Energy Ordinance and Green Building Checklist require that any building larger than 3,500 square feet be limited to energy use for that amount of space, and beyond that the building must address the energy burden. Renewable energy on site must also be installed. In the Oakview Project, a rating of "certified" or better must be met under the Marin new Home Green Building Residential Design Guidelines. A solar site analysis can be conducted to assess potential energy generation capacity, and free technical assistance will be provided to anyone in the County seeking to install solar power in their home. The Oakview project will use solar power and integrate other green building elements. The Fireside building will be redeveloped into a mixed-use affordable housing unit integrating solar energy.

Participants in the Green Business & Sustainable Partners Programs must demonstrate how they will reduce energy and waste, and water consumption as well. Sustainable partner standards will direct manufacturing operations toward a closed loop system which takes the waste and returns it to the manufacturing stream. The success of these programs will be measured by indicators, targets and benchmarks. There are 70 proposed indicators that will be tracked at two year intervals. For example, the "energy mix" will be tracked with regard to both renewables and fossil fuels. In 1999, renewables constituted 15% of energy generation in the County, and the target is 20% for 2010 and 40% for 2017. If the County pursues a community choice aggregation and becomes a power purchaser for its constituents, it would acquire greater control over purchasing power from clean sources of energy. The County is presently looking into this course of action.

Another target is to reduce GHG emissions. In 1990, County government emissions were 16,000 tons of GHGs. County-wide 2.6 million tons were emitted. The goal is to reduce this by 15-20% by 2015 for internal government and by 15% for the entire County by 2015. The County has worked with a team of graduate school interns from UC Berkeley on these targets, and the study indicates that the County has met the target, due to compliance with regulations chiefly at the state and national level. The County hopes to be a leader in reducing GHGs, and to establish a paradigm which other counties can adopt.

The analysis by the UC Berkeley interns lead to the development of a list of six measures, based on initial cost, high payback, and transferability from County to city. These include hybridizing fleet vehicles, electric vehicles for parking enforcement, efficient lighting retrofits, energy star equipment purchasing, landfill methane electric generation, and photovoltaic installation in municipal buildings. The generation of electricity from methane at the Redwood Landfill has 75 times the impact of the other measures. The landfill is presently in the process of obtaining a new operating permit, and discussions with the Air District on the permit are underway as there are several technological issues associated with methane capture and particulate matter that require evaluation.

The CWP's Environmental Impact Report (EIR) includes a review of a letter from the Attorney General to Orange County in March, 2006 criticizing the County for not including GHGs in an EIR for a transportation plan. Municipalities in California are beginning to take note of this letter. The EIR for Marin County is due soon. The modeling that will be conducted to evaluate these measures is based on population and vehicle miles traveled. The prospect of adding population density as a criterion is under discussion.

The CWP is estimated to reduce Marin County's ecological footprint to 400,000 global acres of footprint annually, if a 20% County wide decrease in electricity usage can be achieved by 2015. If a shift to renewable sources of energy of 40% can be achieved by 2015, then an additional 470,000 global acres of footprint will be reduced.

In discussion, Ms. Weisz noted that Sonoma County has a landfill that generates electrical power from methane capture, and Marin County would like to follow their lead. There was a great deal of community support in Sonoma County for this project, and that landfill supported the community direction. Mr. Hess noted that 15 years ago the Air District adopted a regulation that all gases generated at landfills must be collected, burned or abated. The US Environmental Protection Agency (EPA) following that action adopted a similar rule for landfills. The issue of converting landfills from the process of burning methane emissions to generating electricity is under discussion at this time. There are about 20 landfills in the Bay Area that could be candidates for generating electricity from methane gas burned in internal combustion engines. The total amount of electricity that could be generated is estimated at 20MW. This could power 20,000 homes, reduce GHGs and displace some power plant emissions. However, flaring methane emissions at landfills is less polluting than combusting such emissions in internal combustion engines. Staff is examining the potential impact of a 20% increase in NOx emissions from internal combustion engines (ICEs) under a methane capture scenario. The relationship between limiting NOx- or VOC- has an influence on this question, as NOx has a more important relationship to ozone generation in the Bay Area.

On another level, some of the constituents of methane gas—ranging from sulfur to extant compounds from silica—can be a problem for internal combustion engine contamination as well. District staff are working with the Ox Mountain Landfill for a demonstration program for methane gas clean-up and combustion in clean burning engines, as well as after-treatment processes. Cost benefit questions raised by the Redwood City Landfill regarding engine wear are also under discussion. Marin County could partner with the landfill staff at Ox Mountain to use their technology that extends the life of diesel engines. The cost-benefit issue concerns the break-even point in this waste management/air quality relationship.

Mr. Hess indicated that staff is preparing a White Paper on this entire matter, which addresses the various trade-offs that are perceived at the present time. This could be reviewed by the Committee at a future date. He added that a number of key agencies throughout the state met yesterday with District staff on this issue and that the discussion is pending in other regulatory contexts as well.

Ms. Weisz noted that more recently the CWP has emphasized GHGs, and its air and climate section has expanded its pollutant coverage beyond the more standard categories related to criteria pollutants and ambient air quality. The CWP looks at impacts on GHG emissions and cross-references other areas in the CWP in terms of public transit, bicycle usage, mixed-use housing, renewable energy sources, and fossil fuel use reduction. Other components examine climate change impact mitigation on the community in a broader sense, such as projected rise in sea level and where to plan for development near wetland areas. In that section of the CWP, storm surges and flood potential are specifically addressed.

In reply to a question on how the District might be helpful to other jurisdictions in this capacity, Ms. Weisz stated that the District could provide assistance in the air quality elements of other County general plans that may be revised in a similar manner. If the District is taking up climate change as an issue, this will spread the word to other entities. The air and climate section of the CWP might itself become a reference resource, and the District might consider the concepts in that section and make it broadly available to other jurisdictions. Marin County is a high consumer of resources but the impacts from the use of those resources do not have a major impact on the County. The County imports many products and exports considerable garbage, except for what goes to the Redwood Landfill. The County has no refineries, enjoys an ocean breeze, and has few air quality issues that stem from transportation. Mr. Hess added that many Marin County residents use Golden Gate Transit, clean vehicles, hybrid buses, and ferry boats. The County has also adopted a wood smoke ordinance. Dave Vintze, Air Quality Planning Manager, indicated that District staff is preparing draft air quality element guidelines for local jurisdictions to use, and will review what Marin County has done in terms of GHGs.

Chairperson Hayes directed the Committee to review the air and climate element in the plan, and he asked Mr. Vintze to share the draft, when it is ready for comment, with the Committee. Chairperson Hayes added that in terms of the Attorney General letter that was sent to Orange County, the Committee should consider where the GHG issue can be included in California Environmental Quality Act (CEQA) guidance as well. Mr. Vintze replied that staff is drafting new CEQA guidelines, although the identification of a significance criterion for these is unclear as well. This is important because recent court decisions require the agency to justify significant thresholds based on substantial evidence.

5. Discussion of Committee Carbon Footprint. Chairperson Hayes presented a draft document entitled “Carbon Footprint Analysis: BAAQMD Advisory Council Air Quality Planning Committee.” It sets forth a framework, based on the World Resources Institute calculator, for evaluating the carbon footprint of the Committee, based on vehicle miles traveled to and from meetings, electricity needs in attending Committee and Council meetings, and air travel to the A&WMA conference. It is unclear how to identify the energy demand for the Board Room for this meeting, and staff can assist the Committee in determining this. In calculating the cost of offsetting carbon emissions, the current rate is \$5.50 dollars per ton of CO2 equivalent. An initial estimate for the Committee members is \$12.20 a year. Different websites provide calculators for this estimate. Mr. Kurucz noted he had performed this calculation on two different websites, and found that one had many default settings, while another was considerably more complex with specific fields to fill in. The Committee reached consensus that it wanted to perform this calculation for the Committee, and would contribute data on round trip mileage to and from Committee and Regular Council meetings. Mr. Hess indicated he would provide information on the energy usage for the Board and adjacent conference room.

6. Committee Member Comments/Other Business. Mr. Glueck stated that he spoke with a consulting firm that has developed an alternate approach to energy generation that uses hydraulic cylinders underneath road plates at bridges and elsewhere to produce electricity. The Committee agreed to consider this technology at a future meeting.

Chairperson Hayes directed that at the next meeting the Committee would receive an update on the staff’s development of guidance for local plans and CEQA, and also on the White Paper on methane capture at landfills.

Dr. Holtzclaw stated he would present a paper at the A&WMA conference with recommendations on how to evaluate pedestrian and bicycle projects for eligibility and credit under the Carl Moyer program. Ms. Drennen expressed her interest in receiving a copy of the paper and to hear this presentation at a meeting of this Committee as well.

7. Time and Place of Next Meeting. 9:30 a.m., Wednesday, August 9, 2006, 939 Ellis Street, San Francisco, CA 94109.

8. Adjournment. 11:42 a.m.

James N. Corazza

James N. Corazza
Deputy Clerk of the Boards

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

APPROVED MINUTES

Advisory Council Technical Committee
1:00 p.m., Wednesday, June 14, 2006

- 1. Call to Order – Roll Call.** Mr. Altshuler called the meeting to order at 1:17 a.m. Present: Sam Altshuler, P.E., Irvin Dawid, John Holtzclaw, Ph.D. Absent: Louise Bedsworth, Ph.D., Robert Bornstein, Ph.D., Chairperson, William Hanna, Stan Hayes.
- 2. Public Comment Period.** There were no public comments.
- 3. Approval of Minutes of April 12, 2006.** The approval of minutes was deferred to the next meeting due to the lack of a quorum.
- 4. Ambient Particulate Matter (PM) and the Evolution of Concern to Ultrafine PM.** Technical Committee member Sam L. Altshuler, P.E., Senior Program Manager, Clean Air Transportation Group, Pacific Gas & Electric, San Francisco, California, stated he would review key information presented at a recent conference on Ultrafine PM held at the South Coast Air Quality Management District.

Mr. Altshuler reviewed the history of PM measurements from the 1950's with the British Smoke measurements to the early category of "Total Suspended Particulates" (TSP) at the level of 50 microns. In the mid-1980's, PM₁₀ was the new fraction of measurement, followed in the 1990's by PM_{2.5}. At the present time, the nanoparticle (nPM) of 1-100 nanometers is getting attention.

The size fraction of measurement has evolved in parallel with the ability to measure smaller fractions of PM. Motivations to assess the impacts of fine PM are due to the greater visibility impairment in blockage of light, the soiling of materials and monuments, and health impacts related to diesel PM, both in terms of chronic effects (cancer, silicosis) and acute effects (asthma and pulmonary symptoms).

Measurement techniques have also evolved over time from 8"x10" filters, impactors with size separation, coefficient of haze, Tapered Element Oscillating Microbalance (TEOM) and beta gauges, particle number counters, Scanning Electron Microscopy(SEM)-(E-Ray Fluorescence)XRF for size and chemistry, and real time sulfate and nitrate monitors.

PM sizes from the primary sources include TSP—wind blown dust, combustion ash and soot; PM₁₀—chiefly sea salt, dust, combustion soot; PM_{2.5}—combustion soot, and atmospherically formed NO₃ and SO₄; and PM_{0.1} and nPM—combustion soot, aerosols (condensed oils and fuels), and atmospherically formed NO₃ and SO₄.

At the South Coast conference, David Kettleson presented a slide showing the interaction between particle count and size of a number of different types of PM from typical engine exhaust, in terms of distribution by mass, number and surface area showing varying health impacts.

Health issues associated with PM have also evolved over time. Many early air pollution studies were conducted as chamber exposure studies. In the 1990's, many epidemiological studies were published. These examined population, morbidity and mortality, and found correlations that linked to PM exposure. However, causality was never established. Other studies argued at that time that extremes of heat and cold could be correlated with similar health effects.

A slide presented at the conference by Dr. John R. Froines addressed the potential pulmonary effects of PM. It showed mitochondria at extreme magnification and revealed how PM is lodged within the interior of the lung cells. Dr. Froines hypothesized that PM causes cardio-respiratory effects because it induces oxidative stress.

Mr. Altshuler added that Dr. Robert Sawyer, Chairperson of the California Air Resources Board (CARB), also gave a noon time presentation at this conference summarizing many aspects being discussed at the conference. He observed that there are health-related findings that ultrafine particles cause greater inflammatory response and greater cellular damage than fine PM. Even though they have less mass than fine PM, ultrafine particles have large surface areas and occur in great numbers. They contain toxic components that can initiate harmful oxidant injury in the lung and have high deposition rates in the lung. They can also access the circulatory system and move from the lungs to other organs.

Dr. Sawyer spoke on the health effects as a function of particle size, with ultrafine PM being the most serious in comparison with coarse and fine PM. With respect to the source distribution of PM, Dr. Sawyer opined that ultrafine PM comes primarily from vehicle exhaust and fuel use. Concentrations of ultrafine PM along freeways with heavy gasoline or heavy diesel traffic are similar. Mr. Altshuler observed that diesel PM is primarily related to the chronic 70-year cancer potential, while the smaller particles are associated with causing more acute symptoms. This has generated some interesting discussion in strategies for mitigating vehicular emissions.

Mr. Altshuler showed a chart that set forth the source contributions to primary ultrafine particle emissions in the South Coast air basin in 1996. Ultrafine particles were found to originate almost exclusively from combustion sources. Another chart assessing the annual average PM₁₀ source contribution in the San Joaquin Valley for large particulates indicated that over one-half derived from fugitive dust, 27% directly from mobile sources, 11% from burning and cooking, 5% from ammonium sulfate, and 4% directly from mobile sources, 11% from wood burning and meat cooking, and 27% from secondary formation from ammonium nitrate.

Taking these data into account, Mr. Altshuler stated he had tabulated the health effects associated with fugitive dust, ammonium nitrate, ammonium sulfate, burning/cooking, and direct mobile sources. The preliminary calculations indicated that the highest risk factor was found in direct mobile sources for both chronic and acute symptoms. At the conference, however, there was no discussion of the possible health effects of ammonium nitrate, and to date no literature on this subject has been published. Wood burning and cooking also showed higher risk factors for acute and chronic pulmonary symptoms.

Mr. Altshuler stated that, at the conference, Charles Stanier presented a chart on how ultrafine PM is formed in the atmosphere throughout the day and found that it greatly resembles the ozone formation plot. A second slide by Stanier showed the formation of ultrafine PM on a cloudy and sunny day in Pittsburgh on November 10 and 11, 2001. The plot also paralleled the plot for ozone formation.

Mr. Altshuler concluded that adverse health effects of PM are determined by the concentration of PM, the potency/unit risk factor of the chemical constituents contained therein, and then the size and number of the particles. He added that controls are separately needed for nPM as well as ultrafine PM in order to complement the reductions in diesel PM. Such controls ought to consider lube oil regulations and its formulation for internal combustion engines.

While no health impacts have been reported to date for PM nitrate, the San Joaquin Valley plans to reduce PM nitrate to attain the PM_{2.5} standard. However, health impacts from nitrogen dioxide (NO₂) are being reported at increasingly lower levels. This should be closely followed along with the evolution of a lower NO₂ standard by CARB.

Mr. Altshuler added that the following anecdotal conclusions are fairly well-known:

- Diesel smoke is linked to chronic health effects (cancer).
- Ultrafine particulates are linked to acute and chronic cardiopulmonary health effects (heart attacks, asthma, etc.).
- Diesel soot seems to adsorb ultrafine PM aerosols.
- Reducing diesel smoke with a diesel PM increases exposure to ultrafine (a tradeoff between cancer and cardiopulmonary health effects) as well as increased NO₂.
- Other lube oil using IC engines can emit ultrafine PM similar to diesel.
- nPM falls off rapidly within 300 meters of a freeway but grows into larger particles as they move away from the freeway.
- Exposure to PM when your respiratory system is compromised exasperates the situation: extreme heat or old does the same.
- The question of second hand cigarette smoke may be related ultrafine PM.
- Meat should be salted after, and not before, it is grilled to reduce dioxin exposure.

Mr. Altshuler stated that ultrafine PM will become an increasingly important issue in the regulation of PM. Mr. Hess added that this will be addressed at the forthcoming Air & Waste Management Association conference.

- 5. Committee Member Comments/Other Business.** Mr. Dawid stated that in recent news articles, a trend toward an increase in diesel fuel vehicles in the fleet has been identified, and this raises serious air quality questions. Mr. Altshuler replied that this also raises issues of greenhouse gas emissions (GHGs), exhaust standards and other regulatory categories. The Council must assess whether or not it has a role to play in assessing the issue of increasing diesel fuel vehicles in the overall vehicle fleet. This could initially be discussed at the Committee level in the future.

6. Time and Place of Next Meeting. 1:00 p.m., Wednesday, August 9, 2006, 939 Ellis Street, San Francisco, California 94109.

7. Adjournment. 2:25 p.m.

James N. Corazza

James N. Corazza
Deputy Clerk of the Boards

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

DRAFT MINUTES

Advisory Council Regular Meeting
10:00 a.m., Wednesday, July 12, 2006

CALL TO ORDER

Opening Comments: Chairperson Kurucz called the meeting to order at 10:15 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, Irvin Dawid, Fred Glueck, William Hanna, Stan Hayes, Steven Kmucha, M.D., Karen Licavoli-Farnkopf, MPA, Ed Proctor, Linda Weiner, Brian Zamora.

Absent: Cassandra Adams, Emily Drennen, William Hanna, John Holtzclaw, Ph.D., Janice Kim, M.D.

PUBLIC COMMENT PERIOD:

Peter Holoyda
Senior Advisor, Market Research Lab
Hydrogen First - International Business Incubator of Silicon Valley

urging the District acquire a larger fleet of hydrogen fuel-cell vehicles and to participate in the fuel cell vehicle pilot program that is currently underway in the South Coast AQMD.

CONSENT CALENDAR:

1. Approval of Minutes of May 10, 2006. Mr. Glueck moved approval of the minutes; seconded by Mr. Dawid; carried unanimously.

COMMITTEE REPORTS

2. Public Health Committee Meeting of May 10, 2006. Mr. Bramlett stated that the Committee received presentations from John Crouch of the Hearth, Patio and Barbeque Association, and Kathy Hayes of the North Bay Association of Realtors.

3. Air Quality Planning Committee Meeting of June 14, 2006. Mr. Hayes stated that the Committee discussed incorporation of climate change concerns into local general plans, and received a presentation from Dawn Weisz of Marin County on that topic. The Committee also discussed developing a preliminary “carbon footprint” for the Committee.

- 4. Technical Committee Meeting of June 14, 2006.** Dr. Bornstein stated that Committee member Altshuler gave a presentation on information presented at a recent conference held in the South Coast AQMD on ultrafine particulate matter (PM). Mr. Altshuler suggested that the Committee receive a presentation from Dr. Bart Ostro on individual chemistry and mortality. Dr. Bornstein added that he is available to give a presentation at the next Committee meeting on the decreasing temperature trends over the last 80 in coastal areas. Dr. Bornstein stated that large-scale models are insufficient to discern local or regional effects. Dr. Bedsworth replied that climate change as a global phenomenon is a subject on which the scientific community has reached widespread consensus, and that the observation of varying local effects should not have any impacts that would modify policy that endeavors to mitigate global warming. Mr. Dawid noted that a recent article cited one meteorologist as asserting there is no consensus on global warming. Dr. Bornstein replied that this author is ultimately in a small minority compared with the majority of scientists who opine otherwise.
- 5. Executive Committee Meeting of July 12, 2006.** Chairperson Kurucz stated that the Committee met earlier this morning and discussed the Advisory Council's May 30, 2006 report to the Board Executive Committee. The Board members expressed their approval of the Council Committee and Regular minutes submitted to them for review, and it was clear that they had all read the minutes carefully and had come prepared with questions. At this morning's meeting, the Council Executive Committee also discussed the District's outreach program and what types of public outreach activities Council members might engage in.

PRESENTATION

- 6. From Science to Regulation—Air Quality Successes and Challenges in California.** Robert F. Sawyer, P.E., Ph.D., Chairperson, California Air Resources Board (CARB), stated that he would review the history of air quality regulation in California and assess the major air quality successes and challenges facing the state. Dr. Sawyer stated that with regard to diesel emissions, the central issue concerns the heavy-duty truck rule that by 2007 would require installation of particulate traps on all new heavy-duty diesels sold in California. This will soon impact the off-road engine sector. In 2010, another regulatory step mandating a 90% reduction in emissions of nitrogen oxide (NO_x) will take place. To date, the PM reduction has occurred by a factor of 10 in in-use vehicles. NO_x reductions have not been as successful. California has an aggressive PM trap retrofit program that aims to retrofit every heavy-duty vehicle. This technology is attractive and even takes care of the nanoparticle problem.

Given manufacturing trends, the state will see an increase in the number of light-duty diesel vehicles: these are high-performance, high-powered vehicles that meet stringent emission standards and have superior fuel economy to gasoline-powered vehicles. However, there are a few on-board diagnostic issues pending with these vehicles. The emission reduction issues awaiting resolution for these vehicles concern ultrafine PM and nitrogen dioxide (NO₂).

Regarding the history of air quality in California, during the 1950s, Professor Haagen-Smit identified the phenomenon of photochemical smog. At that time, there were 4.5 million vehicles on the road in California. In this millennium, notwithstanding the significant increase in vehicles traveling on the roadways, extreme levels of air pollution have been reduced such that there are no longer any Stage I smog alerts in the South Coast AQMD.

There are a number of emission reduction activities at the state level, such as the regulation of the movement of goods throughout the state. The state's shipping ports are particularly at issue in the context of these initiatives. The Governor is also committed to decreasing the state's dependence on petroleum and on increasing the use of renewable fuels. The major issue on the immediate horizon is climate change. AB 1493 (Pavley) is now being subjected to litigation. The Supreme Court will hear whether the Environmental Protection Agency has the authority and responsibility to control CO₂, and whether or not CO₂ is an air pollutant. CARB intends to move ahead with its regulatory program, notwithstanding such litigation.

The major challenges in California concern ozone and PM_{2.5}. The San Joaquin Valley has achieved compliance with the PM₁₀ standard, but it is at the PM_{2.5} level that the health effects are found. The observable trends for PM_{2.5} in the San Joaquin Valley have reached a plateau, and require further examination of the science in order to understand why this is the case. Attainment of the eight-hour ozone standard also remains a major challenge in the state. This is largely a motor vehicle issue that concerns emissions from the in-use fleet.

Emission reductions have been achieved for lead, nitrogen dioxide, sulfur dioxide and carbon monoxide. In the South Coast AQMD, ozone levels are decreasing. In the San Joaquin Valley, growth and geography have stalled improvements in air quality. The debate continues over whether reducing emissions of hydrocarbons or NO_x is the most effective ozone reduction strategy. The weekend ozone effect is real and well documented, and inter- and intra-basin pollutant transport remains a problem as well. The background levels of ozone coming off the Pacific Ocean are increasing, thereby adding to the ozone problem.

Another challenge in California concerns growth. The number of vehicles has increased fourfold. Vehicle miles traveled (VMT) and population are also increasing. Yet, at the same time, air quality is improving, and progress is being made in the face of growth. Regulation and education will constitute a two-pronged approach to dealing with these dynamics.

The new light-duty vehicle fleet is a success story. The auto industry deserves credit for developing the technology to achieve more stringent emission standards, although much prodding has had to take place in order for this to occur. California has focused on in-use exhaust and evaporative emissions, and is increasingly using on-board diagnostics.

Another major issue is land-use planning and the proximity of residential areas to freeways. In the nearest 100 meters to a freeway, there are high concentrations of ultrafine PM. Those who drive vehicles on freeways are also exposed to large amounts of ultrafine PM. A great deal of planning guidance strongly urges that schools not be located near freeways.

The Zero Emission Vehicle (ZEV) program has been very successful, not so much because of battery and fuel cell vehicles *per se*, but because these have enabled the manufacture of hybrid vehicles. Another review of the ZEV program will be conducted at the state level early next year. Hydrogen fuel cells are longer-term solutions. The dominance of the petroleum refining system will not be displaced in a short period of time.

Another challenge facing California is to reduce petroleum use by 15% by 2020. Given the growth that is expected, use of alternative fuel use will need to increase by 20% by 2020, and an increased focus on renewable and bio-fuels, ethanol and hydrogen. The debate over E10 and E85 ethanol continues, and the economics of ethanol will continue to be influential.

Reduction of risk from diesel PM is a major goal in California, which in 2000 set the goal to reduce such risk by 75% by 2010 and 85% by 2020. New engine standards, engine retrofit programs, such clean diesel fuels as ultra low sulfur diesel, and in-use compliance standards for heavy-duty diesel engines, will contribute significantly toward achieving this goal.

In reply to questions, Dr. Sawyer stated:

- The regulatory landscape has changed since CARB originally petitioned the EPA to grant the use of E10 ethanol. It is a complicated issue due to the subsidy to farmers.
- Implementation of AB 32 in the Governor's view begins with establishing a climate change board comprised of staff from key agencies to provide top-down coordination.
- Experts will report to CARB on the status of battery electric cars and the extent to which improvements in battery technology have been made.
- The increase in gasoline prices would be very positive if the revenues were going to the taxpayers rather than to the oil refiners.
- Nuclear power could be a sound source of energy but the inability to store the waste it generates renders its implementation problematic.
- Regarding the nexus between climate change and traditional air quality programs, it is desirable to seek to reduce urban high temperatures which are adverse both to air quality and daily life, and to strive to attain to efficiency wherever and whenever possible.
- Optical on-board diagnostics will be crucial to integrating on-board diagnostics with the state's Smog Check program.
- Eucalyptus forest waste and chips could be used to combust and generate electricity.
- In a CO₂ emission trading program, whoever can show reduction in carbon emissions should be allowed to enter the market, but the emission inventory must be correct.

AIR DISTRICT OVERVIEW

- 7. Report of the Executive Officer/APCO.** Mr. Broadbent stated that this summer the District recorded four excesses of the national ozone standard, seven excesses of the state standard and one excess of the state one-hour standard. Temperatures were very high on three of the four days on which excesses occurred. The impact of these excesses on attainment in the region is an entirely different statistical matter. On those days the District called a Spare the Air day, transit ridership increased by 10%. Funding for free transit on three additional Spare the Air days during this year's ozone season has just been allocated by MTC.

Mr. Dawid suggested focusing primarily on reducing vehicle miles traveled (VMT) on Spare the Air days and referencing toll bridge plaza data. Mr. Broadbent replied that the District has hired a firm to conduct the necessary marketing and survey work. From an air quality standpoint, VMT is utilized in analyses of longer-term issues. The Spare the Air program serves also as an educational tool to modify individual behavior and provide for a focused, episodic control that gives incentives to use public transit. Dr. Bornstein noted that recent research in the cities of Portland and Houston reveals that thermal heat stress is an additional reason to avoid travel on very hot days.

Chairperson Kurucz inquired as to a recent report that the District is facilitating marine diesel emission reductions by helping to negotiate an agreement between the City of San Francisco and a local cruise ship port. Mr. Broadbent replied that the District is assisting in that capacity and will also provide grant incentive funding to bring electric power to that ship port, thereby avoiding the need for the docked ship to be powered by its own diesel engines.

Mr. Broadbent added that the District is financially healthy this fiscal year and increased its fee schedule an average of 8.5% over last year to allow for the continuance of key programs, including the CARE, wood smoke outreach, and climate change programs.

OTHER BUSINESS

8. Report of the Advisory Council Chair. There was no report.

9. Council Member Comments/Other Business. Chairperson Kurucz called for reports from attendees at the 99th Air & Waste Management Association Conference in New Orleans:

- Mr. Hayes stated that, from a scientific standpoint, the conference was outstanding, particularly concerning information presented on PM and climate change.
- Mr. Altshuler observed that the sessions were well organized. In discussions on the weekend ozone effect, diverse views expressing preferences for strategies that would emphasize either NO_x or hydrocarbon reductions were expressed.
- Mr. Brazil stated that the transportation courses emphasized PM reductions and mobile source emission inventory work.
- Dr. Bornstein stated that in classes on the weekend ozone effect, the diverse presentations expressed consensus on the effect as a phenomenon in the western United States. The weekend ozone effect is not observed east of the Mississippi River.
- Mr. Blonski stated that the conference is an excellent mix of industry, regulators and academics, and gave a clear indication of the District's air quality leadership.
- Chairperson Kurucz expressed his appreciation to the attendees for their active participation in the conference and noted that several of them also presented papers. He added that his course attendance focused on the weekend ozone effect and PM.
- Mr. Hess added that the conference was attended by 1,900 people from over 50 countries.

10. Time and Place of Next Meeting. 10:00 a.m., Wednesday, September 13, 2006, 939 Ellis Street, San Francisco, CA 94109.

11. Adjournment. The meeting was adjourned at 12:31 a.m.

James N. Corazza
Deputy Clerk of the Boards

:jc

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

DRAFT MINUTES

Air Quality Planning Committee
9:30 a.m., Wednesday, August 9, 2006

1. **Call to Order – Roll Call.** Chairperson Hayes called the meeting to order at 9:35 a.m. Present: Stan R. Hayes, Chairperson, Ken Blonski, Harold Brazil, Emily Drennen, Fred Glueck, John Holtzclaw, Ph.D., Kraig Kurucz, Ed Proctor.
2. **Public Comment Period.** There were no public comments.
3. **Approval of June 14, 2006 Minutes.** Fred Glueck moved approval of the minutes; seconded by Emily Drennen; carried unanimously.
4. **Update on Development of Air Quality Guidelines for Local Jurisdictions.** David Vintze, Air Quality Planning Manager, stated that the District is developing general plan guidance and updating the existing California Environmental Quality Act (CEQA) guidelines. The air quality guidance will include background information on health effects, sources of air pollutants, reducing air quality impacts from land use, along with a sample air quality element and a method for evaluating a jurisdiction's general plan. The CEQA guidelines update will identify new analytical methods and significance thresholds and new strategies to mitigate emissions from indirect sources.

The background information section will include an executive summary; identify the air quality standards that are in force and the implementation plans that have been adopted in response to the federal and state Clean Air Acts. It will describe the state of Bay Area air quality, the interrelationships between the federal, state, district and local jurisdictions, and how air quality fits into the other seven mandatory elements of a local general plan.

The health effects section will address those issues associated with exposure to ozone, particulate matter (PM), toxic air contaminants, other criteria pollutants, naturally occurring asbestos, and odors and nuisances.

The guidance document will address stationary, on- and off-road mobile, area, indirect, construction and indoor sources of air pollution. It will review land-use policies and cross-reference the 19 transportation control measures in the District's 2005 Ozone Strategy. It will identify mobile source control measures, green building designs, sample ordinances for vehicle idling, green procurements and contracting. A public outreach section will highlight the District's Outreach & Incentives division, and address indoor air quality issues.

The sample air quality element will include background information, current monitoring data and links to obtain newer data, the attainment status of the region, land-use compatibility issues, sample goals and policies, implementation measures and performance standards.

In evaluating the air quality element, the guidance will include a checklist for a jurisdiction to ensure that consistency is achieved with other elements and policies in the general plan, and to evaluate the inclusion of transportation control measures in the general plan for CEQA review. The District is also developing a system by which to rate an air quality element.

Since the last update of the District's CEQA guidelines in 1999, diesel particulates have been designated as a toxic air contaminant, and this will be included as a category for evaluating project development. New analytical methodologies to assess impacts of sources of air pollution from a given project will also be included. Since 1999, new mitigation strategies have been used and tested in the field, such as green building design and the promotion of mixed-use development to reduce vehicle trips and emissions from various scenarios of landscaping maintenance. Significance thresholds for project emission reduction evaluation have not yet been adopted. The state's CEQA guidelines require that any new significance thresholds that will be adopted by an agency must demonstrate "substantial evidence" that a measure will, in fact, achieve a projected emission reduction.

In assessing air quality impacts, construction equipment emissions are under review along with the development of a methodology for significance thresholds for this emissions source. Methodologies will be further developed for assessing emissions from mobile sources, roadway congestion, area sources such as paint, fireplaces, and lawn equipment, as well as industrial processes.

The guidance document will also include Best Available Mitigation Measures (BAMM). These address a broad range of categories for dust stabilization, low energy use options, alternative travel mode options, alternative fuel/power construction equipment, low emissions product/material options, idling restrictions, re-power equipment and operational modifications.

In response to questions, Mr. Vintze noted that the guidance document will include greenhouse gas emissions and climate change categories. A significance threshold will have to be developed for greenhouse gases based on substantial evidence. This poses a considerable challenge especially in attempting to develop one that would withstand a legal challenge.

In terms of the indirect source issues, a lawsuit has been filed against the San Joaquin Valley air district, which requires that development projects must endeavor to reduce vehicular traffic associated with them or pay a residual fee for what cannot be mitigated. Funds from this fee bank funds incentive programs and emission reduction programs in that District. Regarding the menu of options for BAMM and the development of a cost/benefit assessment for each, emission reduction quantification can be achieved more easily for some projects than for others. Vehicular idling restriction and the re-powering of equipment offers an opportunity for quantifying emission reductions by referencing emission profiles for engines at particular loads and speeds, as well as manufacturer engine test data.

Local jurisdictions will likely track differently how their air quality elements are made consistent with other elements in their general plan. Chairperson Hayes suggested that an air quality element could be incorporated into a general plan when it is updated.

- 5. Update on Methane Capture at Landfills.** Carol Allen, Senior Air Quality Engineer, stated that there are more than 140 landfills in the Bay Area: 19 are active and permitted by the District; 16 are inactive; and 109 are old and small, closed landfills. The total waste capacity amounts to 360 million tons: 309 million tons are at active sites and constitute 65% of total capacity. Inactive/closed sites contain 52 million tons of waste. Proposed expansions of existing landfill facilities will be able to contain 65 million additional tons.

Landfills emit PM, particularly from vehicular traffic associated with them, and from wind erosion. Landfills generate methane gas and carbon dioxide, and organic compound emissions that can contribute to ozone formation, along with some toxic air contaminants. Waste is broken down first in an aerobic environment, and after about two years in an anaerobic environment. As waste decomposes, gas pressures build up below the surface and seep upward toward the surface. The waste type, moisture and temperature in the landfill affect the speed of decomposition. Over the lifetime of a landfill, methane generation occurs at the greatest rate in the first third of the decomposition process. Methane from Bay Area landfills is generated in the amount of 525 tons per day, and precursor organic compounds at 3.1 tons per day. After the application of emission reduction strategies, methane is reduced to 137 tons per day and precursor organic compounds to 0.8 tons per day.

Regulatory requirements from the District and the federal government require landfills to reduce precursor organic compound emissions to mitigate ozone formation. State and solid waste regulations require landfill gas controls to mitigate odor nuisance and fire hazard. When a landfill has accumulated 1 million tons, the District regulations take effect. Due to District regulations, the collection of 24,000 cubic feet of gas is achieved from landfills on a daily basis, which is the equivalent of 720 BTU/hour or 74 MW of electricity on a daily basis.

Landfills collect gases to prevent off-site migration of landfill gases which can create underground fires. There are three elements of landfill gas control in use: landfill covers and caps—such as soil and other materials on top of the waste; landfill gas collection systems—with pipes that have perforated sections buried in the waste; and landfill gas control devices—which are typically flares, or internal combustion engines or turbines.

The District requires that at larger landfills the covers and caps be inspected monthly in order to mitigate seepage of landfill gases. Surface sweeps are required on a quarterly basis to assess methane seepage. District regulations require continuous operation of the gas collection systems. Combustion devices include 70% of gases to be combusted by enclosure flares and 30% by energy recovery devices, such as internal combustion engines, turbines, micro-turbines and boilers. There are some non-combustion methods for dealing with landfill gases, but none of these are in operation currently in the Bay Area: (1) carbon adsorption, (2) purification and separation into products—for which there are two proposed systems in the Bay Area; and (3) fuel cells, which is presently at the theoretical stage.

District regulations require annual source testing of landfill gas control devices. These are subject to Best Available Control Technology (BACT) or Reasonably Available Control Technology (RACT).

In reply to questions, Ms. Allen noted that the economics of converting methane into fuel, as opposed to flaring it, are unattractive. Selling back electricity generated from methane gases

in engines at a landfill does not offer major economic benefits and is subject to the variation in the electricity market. Offsets for emissions of nitric oxide are also costly. Moreover, the wear and tear on the engines fueled by gases from the landfill creates a disincentive for approaching the use of landfill gases with an energy recovery emphasis.

Composting operations greatly speed up the rate of waste decomposition. Emissions of methane are higher from composting operations than from a landfill facility. Methane can be collected and vented through biological filters, and this is the preferred method of control for composting operations. The District has not yet looked at an energy recovery approach to emissions from composting operations. Peter Hess, Deputy Air Pollution Control Officer, observed that recycling requirements are increasing for the Bay Area and minimizing the total quantity of waste going to a landfill, and this has a positive impact by reducing emissions of greenhouse gases from landfills.

6. **Discussion of Planning Committee Carbon Footprint.** Chairperson Hayes distributed “Carbon Footprint Analysis: BAAQMD Advisory Council Air Quality Planning Committee,” which contains a calculation—based on the World Resources Institute methodology—of emissions based on member travel to and from meetings by Committee members, 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 CO₂ 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. These funds could be donated to organizations that are also reducing carbon emissions.

Mr. Proctor moved that the Committee recommend that a carbon footprint be developed for the Advisory Council; seconded by Dr. Holtzclaw; carried unanimously. Mr. Kurucz stated that further refinements to footprint calculations and the policy on the allocation of funds to emission mitigation in the District may be made as the discussion process moves forward.

7. **Committee Member Comments/Other Business.** Mr. Glueck inquired as to the negative publicity on the “Spare the Air” program that was recently heard during a heat spell last month in the Bay Area. Dr. Holtzclaw stated that during those “Spare the Air” days there was also press coverage of how people in San Francisco were walking and shopping, showing that neither vehicles nor increased parking are essential to a thriving economic activity in this sector. Ms. Drennen concurred with Mr. Glueck, and added that broader application of free transit in the Bay Area would be worth considering.
8. **Time and Place of Next Meeting.** At the call of the Chair.
9. **Adjournment.** 11:41 a.m.

James N. Corazza
Deputy Clerk of the Boards

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

DRAFT MINUTES

Advisory Council Technical Committee
1:00 p.m., Wednesday, August 9, 2006

1. **Call to Order – Roll Call.** Chairperson Bornstein called the meeting to order at 1:10 p.m. Present: Robert Bornstein, Ph.D., Chairperson, Irvin Dawid, William Hanna, Stan Hayes, John Holtzclaw, Ph.D. Absent: Sam Altshuler, P.E., Louise Bedsworth, Ph.D.
2. **Public Comment Period.** There were no public comments.
3. **Approval of Minutes of April 12 and June 14, 2006.** Dr. Holtzclaw moved approval of the April 12, 2006 minutes; seconded by Mr. Hanna; carried, with Mr. Dawid abstaining. Dr. Holtzclaw moved approval of the June 14, 2006 minutes; seconded by Chairperson Bornstein; carried unanimously.
4. **Update on the District’s Community Air Risk Evaluation (CARE) Program.** Dr. Phil Martien, Senior Advanced Projects Advisor and CARE Program Manager, stated that 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.

Mitigation measures include targeting incentive funds for reducing mobile source emissions; regulating emissions from stationary and indirect sources; advising and collaborating on issues related to development, housing and transportation; sponsoring and supporting applicable legislation; developing model ordinances and enhancing information campaigns. To involve the community and obtain input from other agencies, a Task Force for the CARE program has been created and includes 15 members representing government, business, health and the community.

Phase I of the CARE program is nearing completion. A preliminary toxic air contaminant emission inventory has been developed. Support studies have been conducted, such as a residential wood burning survey that will help to make corrections in the wood smoke inventory. Source apportionment studies for particulate matter (PM) have been conducted, and include refinements that distinguish new from old carbon in the chemical mass balance analyses, which will contribute to the further refinement of source apportionment. Desert Research Institute is assisting with the speciation of the organic portion of the PM. Demographic and health data will be used to target regions for the incentive programs that will reduce emissions within a given locale.

The development of the emission inventory for area and non-road, on-road mobile and point sources required further chemical speciation in order to obtain more accurate speciation profiles and cancer unit risk factors. Data from this effort are then spatially allocated throughout the map of the model domain. 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 81%; and by source category in another rendering of the same data, in which on-road sources and construction equipment are the two major source categories.

With respect to diesel PM, the spatial distributions of this pollutant have been plotted, with highest concentrations found in West Oakland and San Francisco, and also in west Alameda County. The same data has been rendered with unit risk-factors applied.

For chronic, non-cancer toxicity-weighted emissions, acrolein at 48% and formaldehyde at 20% are the major pollutants when data are weighted by pollutant. For source category, on-road mobile sources at 33% and aircraft at 24% constitute the major sources. When the data for formaldehyde is applied to the map of the study domain, concentrations are highest near major roadways and military airports in the Bay Area.

In terms of acute toxicity-weighted emissions, acrolein is the major pollutant at 94%, and aircraft at 40% and on-road mobile sources at 38% are the major source categories of formaldehyde and acrolein. When acrolein emissions are plotted on the study domain, airports show the highest concentration levels.

Demographic and health data have been plotted on the map of the study domain. Data have been plotted for populations under age 18 and then adjusted with asthma hospitalization rates. The plotted data are consistent with the maps of emissions, with western Alameda as an area of particular attention. However, direct inferences of this data are not to be recommended, except insofar as the plots help identify areas with sensitive populations.

Phase I findings are that (1) 80% of cancer health risk is attributable to diesel PM; (2) 50% of chronic non-cancer risk is from acrolein; (3) more than 90% of acute non-cancer risk is also from acrolein; (4) on-road and off-road diesel emissions, including construction, shipping, and rail are large sources of cancer risk; and (5) gasoline powered vehicles and aircraft are the largest contributors to non-cancer risk. The highest concentrations of diesel PM and acrolein are found in eastern San Francisco and western Alameda and Contra Costa counties. These areas also have large numbers of sensitive receptors.

Policy recommendations from these findings are that (1) a gridded toxic air contaminant inventory will be used as a surrogate for exposure; (2) regional demographic data will be used to identify grid cells with sensitive populations; (3) mitigation measures will be targeted for areas with high concentrations of toxic air contaminant emissions and sensitive populations; and (4) follow-up will be conducted with more sophisticated techniques to evaluate population exposure.

Plots over the study domain of toxic air contaminants for total PM_{2.5} weighted by groups under age 18 and over age 64 have been made for identifying projects in areas to which Carl Moyer program grants could be applied to mitigate high concentrations of diesel PM.

With regard to next steps, Phase II will include modeling concentrations and continuing development of mitigation measures. Preliminary modeling on a local and regional scale will also be conducted, along with health risk assessment for the Port of Oakland and large rail yards. Additional mitigation measures for these will be developed.

Phase III will contain the development of exposure assessments, refinement of modeling and measurements, and development of health risk assessments along with continuing work on emission mitigation measures.

In reply to questions, Dr. Martien noted that similar toxic air contaminant analysis has occurred in the South Coast AQMD, and that the plots of data have some degree of parallel with those developed in the Bay Area. Chairperson Bornstein inquired if it might be advisable to request a presentation from the South Coast AQMD staff on its modeling work and then to have a meeting between South Coast and Bay Area staff, as well as Dr. Eric Fujita from the Desert Research Institute (DRI). Dr. Martien replied that this could prove to be productive. The Committee members agreed with this suggestion and requested that the modeling staff of the South Coast be invited to give the Technical Committee a presentation on its toxic air contaminant modeling work to date. Dr. Bornstein suggested that the Public Health Committee be invited join the Technical Committee in receiving this presentation.

5. **Committee Member Comments/Other Business.** Chairperson Bornstein stated that the California Energy Commission is hosting its Third Annual Research Conference on Climate Change in Sacramento on September 13-15, 2006.
6. **Time and Place of Next Meeting.** 1:00 p.m., Wednesday, October 11, 2006, 939 Ellis Street, San Francisco, CA 94109.
7. **Adjournment.** 2:39 p.m.

James N. Corazza
Deputy Clerk of the Boards

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

TO: Chair Uilkema and Members
of the Executive Committee

FROM: Chairperson Thomas M. Dailey, M.D., and Members of the Hearing Board

DATE: July 18, 2006

RE: Hearing Board Quarterly Report – APRIL 2006 – JUNE 2006

RECOMMENDED ACTION:

This report is provided for information only.

DISCUSSION:

<u>COUNTY/CITY</u>	<u>PARTY/PROCEEDING</u>	<u>REGULATION(S)</u>	<u>STATUS</u>	<u>PERIOD OF VARIANCE</u>	<u>ESTIMATED EXCESS EMISSIONS</u>
San Mateo	UNITED AIRLINES (Variance – Docket No. 3508) – Variance from regulation to reduce emissions of hexavalent chromium and nickel from thermal spraying (APCO not opposed.) – Full Variance Hearing.	California Code of Regulations, Title 17, Section 93102.5	Granted	1/1/06-9/28/06 with respect to Booth Nos. 2, 3, 8, 9, 10 & 11	3.728 # (Hexavalent Chromium) 27.041 # (Nickel)
San Mateo/South San Francisco	GENENTECH, INC. (Variance – Docket No. 3514) – Variance from regulation requiring compliance with permit conditions and from regulation to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines.	2-1-307; ATC, Application No. 10374, Condition # 22389, Section 4; California Code of Regulations, Title 17, Section 93115 (e)(2)(A)3.a.I.i., & 93115(e)(2)(A)4.a. II.i.	Withdrawn	===	(PM), (POC) and (NOx)

NOTE: During the second quarter of 2006, the Hearing Board dealt with one Docket on one hearing day. A total of \$192.01 was collected as excess emission fees during this quarter.

EXCESS EMISSION DETAILS

<u>COMPANY NAME</u>	<u>DOCKET NO.</u>	<u>TOTAL EMISSIONS</u>	<u>TYPES OF EMISSIONS</u>	<u>PER UNIT COST</u>	<u>TOTAL AMT COLLECTED</u>
United Airlines	3508	3.728 lbs 27.041 lbs	Hexavalent Chromium Nickel	\$ 6.24/lb \$ 6.24/lb	\$ 23.27 \$ 168.74
				TOTAL COLLECTED:	<u>\$192.01</u>

Respectfully submitted,

Thomas M. Dailey, M.D.
Chair, Hearing Board

Prepared by: Neel Advani
Reviewed by: Mary Romaidis

FORWARDED: _____
NA:na (7/18/06HBEXQURT)

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Uilkema and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 6, 2006

Re: Consider Authorizing the Executive Officer/APCO to Initiate Program with
the Sacramento Metropolitan Air Quality Management District for Multi-
Regional Projects

RECOMMENDED ACTION:

Recommend Board of Directors' authorize the Executive Officer/APCO to initiate a program with the Sacramento Metropolitan Air Quality Management District with the allocation of \$500,000.000 each year from Carl Moyer Program funds towards multi-regional projects as a result of the attached amendments to SB 225 currently on the Governors desk.

BACKGROUND

The Air District has been working with the California Air Pollution Control Officer's Association (CAPCOA) since 2004 to correct a long standing issue of under allocating funds to the Bay Area from the Carl Moyer Program. This existing law established the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), which provides grants to offset the incremental cost of eligible projects that reduce oxides of nitrogen from heavy-duty mobile sources in the state.

SB 225 would revise or limit the percentages of program funding that may be allocated to air pollution control districts and air quality management districts for specified purposes, with different limits for districts with a population of less than 1,000,000 and for districts with a population of 1,000,000 or more. SB 225 would increase the percentages of the allocation to districts that are based on population and severity of the air quality problems.

On Thursday, August 31, 2006, SB 225 passed the Legislature and is now on the Governor's desk. The Governor has until September 30, 2006 to sign.

DISCUSSION

The Sacramento Metropolitan Air Quality Management District and smaller districts will be impacted by SB 225 amendments. It is in the interest of the Sacramento Metropolitan Air Quality Management District and the Bay Area Air Quality Management District to develop a program for allocating a standard amount of Carl Moyer Program funding each year towards joint projects that benefit both areas. This program will identify

transportation activities that use these modes of transport within the larger region and that offer cost effective opportunities for joint projects.

Staff is requesting that the Executive Committee recommend Board of Directors' authorize the Executive Officer/APCO to initiate a program with an allocation of \$500,000.000 each year from Carl Moyer Program funds towards multi-regional projects with the Sacramento Metropolitan Air Quality Management District. Likewise, the Sacramento Metropolitan Air Quality Management District would invest \$500,000.00 of Carl Moyer Program funds to projects that would benefit both regions. This proposal would continue the pattern of cooperation between our districts and help offset the loss of funds to the Sacramento region.

The Sacramento Metropolitan Air Quality Management District's Board of Directors at its meeting of August 24, 2006, unanimously approved the proposed program and the allocation of Carl Moyer Program funding of \$500,000.00 each year towards multi-regional projects.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Uilkema and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: August 29, 2006

Re: Spare the Air Program Update

RECOMMENDED ACTION

For information only.

BACKGROUND

Staff will provide an update on the activities of the Spare the Air program.

DISCUSSION

The *Spare the Air/Free Fare* campaign began on June 1. Nine *Spare the Air* advisories have been issued to date. Originally, the Air District and the Metropolitan Transportation Commission (MTC) approved funding for three free transit days whenever a Spare the Air day fell on a non-holiday weekday; however, a heat wave early in the season necessitated issuing advisories on June 22, 23 and 26. In July, MTC Commissioners and the Air District Board approved funds for an additional three days. Another heat wave resulted in three advisories on July 17, 20 and 21; thus concluding the *Free Fare* portions of the Spare the Air campaign. The *Spare the Air* season continues until October 13.

Staff will present details on ridership data, survey results, behavioral changes and air quality.

BUDGET CONSIDERATION/FINANCIAL IMPACT

Funds for the advertising, media and employer campaigns have been allocated in the 2005-06 and 2006-07 budgets. Supplementary funds for the additional three days were approved at the July 19, 2006 regular board meeting.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Luna Salaver
Reviewed by: Jack M. Colbourn

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Uilkema and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/ APCO

Date: August 30, 2006

Re: Status Report on the Community Air Risk Evaluation (CARE) Program

RECOMMENDED ACTION

For information only.

BACKGROUND

The Community Air Risk Evaluation (CARE) program was established by the District in 2004. The objectives of the CARE program are, first, to identify locations with high emissions of toxic air contaminants (TAC) and high exposures of sensitive populations to TAC and, second, to use this information to help the District establish policies to guide mitigation strategies that obtain the greatest health benefit from TAC emission reductions. A Task Force of academics, community groups, and health and industry representatives provides regular review and input to the CARE program.

The CARE program is a multi-phase program, the first phase of which is nearly complete. In each phase, technical studies will be conducted to progressively improve District estimates for where TAC exposures are occurring, particularly exposures of sensitive populations. In each phase, the technical information derived will be used to inform and guide emission reduction strategies. One of the strategies of the CARE program is to develop and implement targeted TAC emission reductions as the program progresses.

Staff previously reported to the Executive Committee on the CARE program in February 2005. Since then a new program manager was hired and the program has made significant progress. The program has a refined direction and timeline, and benefits from good working relations with members of the CARE Task Force.

DISCUSSION

Phase I of the CARE program is nearing completion. District staff and consultants have completed a preliminary annual inventory of TAC emissions in the Bay Area. This emissions inventory has been geographically mapped to reveal the locations, within the Bay Area, where the highest emissions are occurring. Completed, or nearing completion, are a number of support studies that either contributed to the development of the TAC emissions inventory or can be used to evaluate it. These studies show that about 80% of the cancer-risk-weighted emissions in the Bay Area are from

diesel particulate matter (PM). About 50% of the risk-weighted emissions for chronic, non-cancer, health risks are from acrolein, a chemical that is emitted from the combustion of fossil fuels and other sources. Acrolein is also the dominant source of emissions weighted by acute health risk.

In Phase I, District staff also compiled demographic and health statistic data that can be used to identify people who are particularly sensitive to the effects of TAC. District staff intends to use the TAC emissions data and the demographic and health statistic data to identify areas where TAC reduction measures are particularly needed. Staff intends to use the data to develop and implement risk reduction programs, including grant and incentive programs, community outreach efforts, collaboration with other governmental agencies, model ordinances, new regulations for stationary sources and indirect sources, and advocacy for additional legislation. Staff will update the Committee on the status of the CARE program with respect to findings and policy recommendations from Phase I activities.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer /APCO

Prepared by: Phil Martien
Reviewed by: Henry Hilken

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Uilkema and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: September 5, 2006

Re: Presentation on Mercury Emissions from Crematories

RECOMMENDED ACTION:

Receive and file.

BACKGROUND:

As the popularity of cremation grows in California, concerns have been raised about mercury emissions from crematories. Mercury is a toxic compound that has been linked to a variety of serious health problems including impaired neurological development in children. Potential concerns that have been raised regarding crematories include localized exposures to nearby residents resulting from inhalation of emitted mercury, and the deposition of mercury into San Francisco Bay. The Regional Water Quality Control Board has determined that mercury concentrations in San Francisco Bay fish are high enough to threaten human health, and the Cal/EPA Office of Environmental Health Hazard Assessment has issued a fish consumption advisory for Bay-caught fish.

DISCUSSION:

Staff will provide the Committee with the following information:

- Background information on mercury
- Summary of the health effects resulting from exposure to mercury, and the levels of exposure that are considered “safe”
- Summary of mercury emissions from crematories
- Review of District regulation of mercury from crematories to protect public health
- Summary of issues regarding mercury in San Francisco Bay

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO

Prepared by: Brian Bateman
Reviewed by: Peter Hess

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Memorandum

To: Chair Uilkema and Members
of the Executive Committee

From: Jack P. Broadbent
Executive Officer/APCO

Date: August 29, 2006

Re: Joint Policy Committee Update

RECOMMENDED ACTION:

Receive and file.

DISCUSSION

At the September 13, 2006, meeting of the Executive Committee, Ted Droettboom will provide an update on the activities of the Joint Policy Committee.

BUDGET CONSIDERATION/FINANCIAL IMPACT

None.

Respectfully submitted,

Jack P. Broadbent
Executive Officer/APCO