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

APPROVED MINUTES

Advisory Council Technical Committee Meeting
9:30 a.m., Monday, February 7, 2005

1. **Call to Order – Roll Call.** Chairperson Hayes called the meeting to order at 9:40 a.m. Present: Stan Hayes, Chairperson, Sam Altshuler, P.E., Diane Bailey, John Holtzclaw, Ph.D., Norman A. Lapera, Jr. Technical Committee Members Absent: Bob Bornstein, Ph.D., Louise Bedsworth, Ph.D.,

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

3. **Approval of Minutes of Joint Air Quality Planning and Technical Committee Meeting of December 16, 2004.** Mr. Lapera moved approval of the minutes; seconded by Dr. Holtzclaw; carried with Mr. Altshuler abstaining.

4. **Discussion of the District's Community Air Risk Evaluation (CARE) Program.** Janet Stromberg, CARE Program Manager, stated that the CARE program goals include evaluation of health risk from toxic air contaminants, public outreach and the planning and implementation of risk reduction strategies. Program objectives include public outreach, development of emission inventory and emission density maps, technical and analytical quality assurance, a detailed pilot cumulative risk assessment from stationary sources in a neighborhood, the identification of risk reduction opportunities and the implementation of a risk reduction plan. Public outreach and input will be sought from the District's Advisory Council, the CARE Advisory Committee, and the public at community meetings and workshops on regulatory proposals. The District's website will be revised with information derived from the CARE program, and regulatory proposals will very likely follow, with the District possibly seeking regulatory authority where necessary.

   The District's work will commence with developing an emission inventory. Subsequent emission density maps will focus on area and point sources, on-road motor vehicles, criteria pollutants and toxic air contaminants. The emission inventory work on area sources is largely complete. Geographical Information System (GIS) maps will house all the emission inventory data, and the software has been purchased and installed on several District workstations for this purpose.

   Staff is analyzing particulate matters (PM) on filters with the aim of distinguishing old from new carbon. Analytical equipment for the laboratory has been purchased for this purpose. At the end of January a draft report was completed. Emission models will observe individual profiles of emission species and correlate them with sources, to ensure reliability of emission density maps.

   The District will use data from emission density maps, modeling analysis and census data on the demographic characteristics of neighborhoods to choose a neighborhood in which to conduct a detailed cumulative risk analysis. District records will also be audited for accuracy. The area selected for analysis will be analyzed for terrain features and population profiles. Risk reduction opportunities will then be identified and a risk reduction plan developed for implementation.

Letters of invitation have been sent to prospective members to form a CARE Advisory Committee. Prospective members are being sought from academic backgrounds, community organizations and advocacy groups, regulated industries, and medical and public health backgrounds. This Advisory Committee will first meet on February 17, 2005 and thereafter on a bi-monthly basis.

In reply to questions, Ms. Stromberg stated that the pilot neighborhood to be studied on a cumulative risk basis will be chosen based on identification of where the toxic impacts are the highest. Overview maps of the entire Bay Area will be combined with data from mobile point and area sources in order to identify the high impact areas. Staff will also assess the population groups who are suffering the greatest impacts. If successful, the program may lead to the study of other neighborhoods. Jack Colbourn, District Policy Advisor, indicated that as the project matures staff will return to the Technical Committee for advice on selecting the neighborhood to be studied. He suggested that a joint meeting be held with the CARE Advisory Committee at a future point.

Chairperson Hayes noted that as estimates are that as much as 70% of air toxics risk derives from diesel engine emissions, the emission inventory for diesel is particularly noteworthy. Monitoring is therefore especially important and the means by which measurements of elemental carbon are used to derive diesel particulate levels are critical to assess. The Technical Committee can provide its advice on this methodology. Ms. Stromberg noted that preliminary results show considerable new carbon in the portion of elemental carbon on the PM filters, which is somewhat surprising. The key findings in the preliminary draft report include:

a. most anthropogenic $PM_{10}$ or $PM_{2.5}$ derives from wood and fossil fuels. New carbon is not derived from fossil fuels.
b. geological dust is a small contributor to $PM_{10}$ and negligible to $PM_{2.5}$
c. tire and break wear contributes little to PM concentrations
d. peak PM concentrations occur in winter
e. ammonium nitrate is a contributor to PM
f. carbonaceous PM accounts for half of $PM_{10}$ and $PM_{2.5}$; ammonium sulfate is a major contributor to annual PM but small to peak PM.

Henry Hilken, Environmental Planning Manager, stated that in parallel with the work on the CARE program, the District is involved in PM planning as a response to legislation passed last year. Regulatory proposals will be brought to the District's Board of Directors this summer.

**5. Discussion of District's Role in Climate Change Issues.**

Joe Steinberger, Principal Environmental Planner, stated that last year the District entered into a contract with Sonoma County. It is comprised of two phases. The first concerns conducting an inventory of greenhouse gas (GHG) emissions inventory. The second focuses on programs that concern criteria pollutants and how these interface with GHG emissions. This project should be completed by the year's end.

The District is involved in an energy grant to the Bayview Hunters Point area for energy efficiency measures to reduce local GHG emissions. The project will employ residents to engage in energy efficiency projects regarding replacement of lights and thermostats.

The District has also incorporated GHG issues into ozone strategy, through several measures. One promotes energy conservation through adoption by local governments of model ordinances. Transportation Control Measures (TCMs) that reduce vehicle trips and encourage use of alternative modes of transportation also reduce GGH emissions. Also, the District has put together a website addressing global climate change and GHG emissions, which addresses the history of climate change and identifies measures the District has implemented. Working with the International Council for Local Environmental Initiatives (ICLEI), the District is discussing development of a GHG emissions inventory for the Bay Area, and the entry of data into the "Clean Air and Climate Protection Software" that ICLEI has developed. This will supplant local government agencies having to conduct their own emission inventories, although they can still identify their own mitigation measures. The California Climate Registry will sponsor a conference on GHGs later this year, in which the District will participate. Santa Clara County has requested that the District partner with it in developing a climate change resolution. The District has also reviewed Marin County's general plan for climate change measures. Mr. Colbourn noted that the District will roll out a GHG emission program this June in anticipation of the District's celebration of its 50th Anniversary. The District will also participate in World Environment Day in the City this June.

Mr. Steinberger stated that the District has developed a draft list of 24 areas in which to reduce GHGs. These include development of a GHG emissions inventory, further development of the District's website to include GHG issues, adoption of a District resolution on GHGs, consideration of GHGs in eligibility criteria for mobile source programs, further investigation of the link between criteria pollutant and GHG emission reductions, and cooperation with regional agency partners to address climate change. The Committee requested to receive the staff list and offer comments on priorities and implementation. Mr. Colbourn suggested the Committee add to it and provide technical advice. Mr. Hilken added that staff is also looking for ways to outreach to cities and counties through smart growth programs, modification of air quality elements in general plans and of local plan guidance on energy efficiency, and adoption of model ordinances for energy conservation. Staff is looking to see what incentive opportunities are also available through grants and funding programs sponsored by the Metropolitan Transportation Commission (MTC). Ms. Bailey suggested that staff consider adding GHGs to the District's permit program, and also focus on such renewable fuels efforts as San Francisco's bio-diesel program which may collect restaurant grease.

On the matter of legal authority, Mr. Steinberger noted that the California Air Resources Board adopted a mobile source emission regulation for GHGs, which was successfully challenged in court based on EPA's determination that $CO_2$ is not an air pollutant. However, there may be some level of authority available to the District under the California Clean Air Act (CCAA). Chairperson Hayes noted that New Jersey has declared $CO_2$ a pollutant and is attempting to regulate under that finding, although controversy has ensued. Mr. Altshuler stated that the opportunity to include GHG emission reduction credit for the mobile source programs is timely and should be pursued. Emissions of lubrication oil in engines, as well as the sequestration of carbon, ought also to be considered.

Messrs. Colbourn and Hilken stated that staff is working on next fiscal year's budget and may request additional staff for working on GGH emissions issues. In the interim, the Committee can review the list of GHG measures and offer advice on priority, implementation and technical aspects.

Mr. Lapera apprised the Committee on the status of the program to remove 1,500 acres of eucalyptus trees in the East Bay Regional Park District, and how this will reduce biogenic emissions of isoprene, which is the major ozone precursor emitted by eucalyptus trees. Eucalyptus trees are not indigenous to the area, and the park environment will be returned to its native Oak Bay Laurel woodlands. Biogenic emissions of isoprene will be reduced along with fire hazard. This provides a unique opportunity for cooperation between the Air District, the park district and environmental groups. The extent to which this fuels management program has the potential to reduce emissions of GHGs requires further assessment. Ms. Bailey observed that isoprene is less an air pollution problem than wildfires. Mr. Hilken noted that staff supports municipal tree planting projects to reduce urban heat islands, and sends letters to cities and counties encouraging them to plant trees after review of the tree emission profiles.

The Committee requested staff to transmit the list of 24 GHG emission reduction measures for Committee review and prioritization. It agreed that it is important to track the extent to which these may dovetail with the District's CARE program and efforts to meet both the ozone and PM standards. If there is a need for funding separate programs to reduce $CO_2$ emissions, that is also important to review. Dr. Holtzclaw urged coordination with the Air Quality Planning Committee where possible, including the possibility of holding a joint meeting. Chairperson Hayes stated that some information gathering would be useful at the outset to assess what the GHG emissions inventory looks like in the Bay Area, and to get a sense of the primary sources of such emissions.

The Committee agreed to request a speaker from the Climate Action Network to address the Committee on the matter of Bay Area GHG emissions. Related issues concern the linkage with criteria pollutants, the reduction of combustion which generates the most $CO_2$, along with energy efficiency issues. Mr. Lapera suggested there is a need to schedule the remaining meeting agendas in accordance with the staff's schedule and the Committee's goal of developing by the end of this year a recommendation for staff consideration. At the next Advisory Council Regular meeting in March, there will be an opportunity to further review the Committee's schedule on this topic.

In addition to the information gathered from the presentation on GHG emissions and the discussion of the District's 24 GHG emission reduction topics, the Committee requested that District staff make a presentation at its next meeting on diesel emissions within the context of the District's CARE program. The Committee agreed that its work on the topic of cleaning up diesel engines should be limited to the context of the CARE plan. The primary areas of focus should be source apportionment and monitoring methods for diesel which distinguish new from old carbon and use the former as a tracer for diesel emissions.

6. **Committee Member Comments/Other Business.** Dr. Holtzclaw stated that he will discuss rapid transit issues at a forthcoming SPUR meeting to be held at 322 Sutter Street.

7. **Time and Place of Next Meeting.** 9:30 a.m., Wednesday, April 13, 2005 -- Joint Meeting with the Air Quality Planning Committee -- 939 Ellis Street, San Francisco, CA 94109.

8. **Adjournment.** 11:45 a.m.

*James N. Corazza*

James N. Corazza
Deputy Clerk of the Boards

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