

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

APPROVED MINUTES

Advisory Council Regular Meeting
10:00 a.m., Wednesday, May 12, 2004

CALL TO ORDER 10:10 a.m.

Opening Comments Chairperson Blake welcomed new “Architect” category appointee Sanjiv Bhandari to the Advisory Council. Mr. Bhandari noted that he has been involved with the Metropolitan Transportation Commission Advisory Council and in a group in Contra Costa County that has been developing a green building program for the county and also the City of San Ramon.

Roll Call Present: Elinor Blake, Chairperson, Sam Altshuler, P.E., Diane Bailey, Louise Bedsworth, Ph.D., Sanjiv Bhandari, Jeffrey Bramlett, Harold Brazil, Irvin Dawid, Emily Drennen, Fred Glueck, Stan Hayes, John Holtzclaw, Ph.D., Norman A. Lopera, Jr., Victor Torreano, Linda Weiner, Brian Zamora.
Absent: Robert Bornstein, Ph.D., William Hanna, Kraig Kurucz, Kevin Shanahan.

CONSENT CALENDAR

1. Approval of Minutes of March 10, 2004. Chairperson Blake deferred this item until after the guest speaker presentation.

PUBLIC COMMENT PERIOD There were no public comments.

PRESENTATION

2. Indoor Air Technical & Policy Issues: An Update for the BAAQMD Advisory Council.

Jed Waldman, Ph.D., Chief, Indoor Air Quality Section, California Department of Health Services, stated that Americans spent approximately 90% of their time indoors. Most indoor environments have less effective air exchange than the urban atmosphere and certain pollutants occur at higher levels indoors than outdoors. In an indoor environment, cigarette smoke and pollen have a thousand-fold greater chance of reaching a human being than outside due to less dispersion.

Ambient air quality management emphasizes source control methods to reduce exposure to pollution. Indoor air quality management is somewhat more flexible and is achieved by modifying ventilation rates, either through code modification or building management staff. Green building design combines energy conservation and resource efficiency to build healthier buildings with lower indoor pollution sources and more effective ventilation. This enables “building commissioning” in which a building is constructed and operated according to its design.

Indoor air pollution contains gases and vapors similar to ambient air, including volatile organic compounds such as formaldehyde; particulate matter and dust from tobacco, wood combustion and cooking; allergens from dust mites, pollens and pet dander; fibers from asbestos and microbial fungi and viruses; and toxics such as lead, pesticides and polychlorinated biphenyls (PCBs). Other indoor sources include construction and cleaning products such as adhesives; solvents, insulation and ceiling tile, paints; furnishings such as carpets, upholstery, pressed wood; ventilation system components; office equipment, personal care products, and dry cleaned clothes. Tobacco was once the most important indoor pollution source, but that has been reduced by 90% through the law.

Health risks from indoor air pollution include eye and respiratory irritation, allergies, asthma, chronic sinusitis, increased rates of infectious diseases such as influenza and colds, neurological impairment such as headaches, memory and motor function, and increased cancer risks. The terminology governing such effects includes “building related illness,” “sick building syndrome” and “multiple chemical sensitivity.” These are broad terms for health effects caused by a multitude of factors, and many toxins also have the same health effects. An individual may feel better at home than at work, or vice versa. Symptoms from these circumstances range from perception of bothersome odors, temporary mild discomfort, to severe illness and permanent injury.

Regulatory authority for ambient air quality resides in the District and the California Air Resources Board (CARB). The California Occupational Safety & Health Administration (Cal/OSHA) promulgates workplace exposure standards and air toxics reference exposure level standards. California’s regulations on smoking are enforced locally. There is new legislation that will restrict smoking in vehicles in which small children are traveling.

Proposition 65 requires posted warnings indoors, and applies water quality exposure limits to indoor air quality. It is enforced through litigation — examples of which are the product reformulations of nail care products and typewriter correction fluid. Draft indoor air quality guidelines, based on ambient air quality standards and reference exposure levels, are under discussion. Federal clean air legislation will address radon content in drinking water, which is the greatest source of cancer risk in indoor air and is comparable to second hand smoke. A multi-media regulatory approach has been developed for water quality agencies that would allow radon content in homes above a lower end threshold in return for the institution of an indoor air quality program.

Indoor air quality emission limits are primarily addressed by focusing on individual appliances. The Gas Appliance Manufacturing Association (GAMA) sets the flame emission limits for stoves. The Housing & Urban Development commission regulates formaldehyde emissions from pressed wood products. Consumer products are regulated by the Food and Drug Administration (FDA). Section 01350 is a state specification developed by a group of representatives from the Department of General Services (DGS), Department of Health Services (DHS), and State Consumer Protection Society (SCPC), on the purchase of carpentry, office module furniture, etc. It requires a high-recycled content and a high recycling potential. Indoor lighting must be energy efficient. This group provides an excellent model for stakeholders to meet and produce an effective standard.

With regard to building design and construction standards and guidelines for materials, the standards for ventilation are created by a non-government group called the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE). The U.S. Green Building Council has established Leadership in Energy & Environmental Design (LEED). There are also self-inspection guidelines and a Collaborative for High Performance Schools (CHPS) in place.

Key indoor air quality agencies include the federal Environmental Protection Agency (EPA), the Center for Disease Control (CDC) (to assess moisture and mold), and the National Institute of Occupational Safety and Health (NIOSH) to provide funding for research. The State Department of Health Services (DHS) has an indoor air quality program. CARB has a research division that includes indoor air quality. Cal/OSHA is the regulatory agency. The Office of Environmental Health Hazard Assessment (OEHHA) provides risk assessment. The DGS oversees the construction of new buildings and materials procurement. The California Energy Commission (CEC) and the State & Consumer Services Agency (SCSA) provide additional oversight on the sustainable building effort.

Home inspection authority is found at the local level, through rental property requirements and individual homeowner compliance with building codes. Local environmental health, as well as housing, inspectors received training years ago but their success was variable. The American Lung Association is very knowledgeable and promotes indoor air quality improvement. The Green Building Council (GBC) promotes standards in building design and ASHRAE maintains the ventilation standards. The tobacco and hospitality industries are still fighting in other states. The Carpet & Rug Institute (CRI) is an exceptional group for minimizing indoor air pollution. Other research organizations on indoor air quality include the Lawrence Berkeley National Laboratory.

- Several years ago, the Toxic Mold Protection Act was passed, but it was written in a way that did not provide the DHS enforcement authority, and so it has mainly raised public awareness.
- EPA has advocated improving indoor air quality in schools, and the CHPS leads the nation in the sustainable green building effort for schools.
- In the 1980's, the DGS put together a building task force, which included the DHS and coordinated the energy efficiency and recycled products fields to promote indoor air quality.
- The Department of Education building in the east wing of the State capitol is a landmark of green building principles.
- The District can collaborate with DHS to address public health concern on air pollution exposures that include indoor air.
- The Spare the Air program provides an opportunity to explicate the meaning of "shelter in place."
- There are noteworthy public outreach opportunities regarding exposure to particulate matter generated on roadways and the idling of diesel buses in schoolyards.
- The DHS is collaborating with CARB to develop a rule for pressed wood products that release formaldehyde, as indoor emissions affect outdoor air and should be included in the baseline emissions inventory.
- Plywood and pressed wood product manufacturers will need to respond to such emission standards.

In reply to Council member questions, Dr. Waldman stated:

- a) There is a 50/50 split between exposure to particulate matter in indoor and outdoor air: 90% of the exposure to benzene occurs indoors even though more than 90% of benzene emissions derive from industrial sources. For formaldehyde, which has the largest carcinogenic risk, indoor exposure levels are three to four times greater than in outdoor air.

- b) There are no enforcement mechanisms for cigarette smoke in homes or apartments. Title V ventilation requirements that apply to the workplace cannot be applied to residential environments. However, property co-ops may provide some means of accountability.
- c) Radon in drinking water emanates only from ground water, and homes that obtain water directly from wells are the most at risk. A survey of California homes has never reached the high levels of radon found in homes in Pennsylvania or New Jersey. However, none of the counties in California will need to address radon in drinking water or in the air.
- d) Substandard housing is a socio-economic surrogate for indoor air pollution health risks.
- e) Nationwide statistical data on the cancer mortality risk comparing radon and tobacco smoke indicate that about 15,000 excess lung cancers are due to radon exposure. The risk is primarily associated with smokers as there are synergistic effects between indoor radon and tobacco. These data have not been adjusted for California, which has a lower than national average for smoking and a lower radon level as well. Data for diesel PM mortality on a national level predict that 60,000 cardiovascular related deaths occur annually.
- f) As to whether the causality of asthma is due more to indoor air in which 90% of Americans spend their time and are exposed to PM about 50% of the time, it depends upon the trigger. Bio-allergens such dust mites and pet dander are quite prevalent indoors.
- g) The DHS focuses its building commissioning efforts on schools and compliance is voluntary. Mr. Bhandari noted that there are no building commissioning regulations for tract homes. In Texas and California, agencies work cooperatively with but do not regulate home builders. Suppliers and builders can be encouraged to use preferred products prior to the adoption of policies, but such materials must be available for a policy to work. Indoor materials do pollute outside air when they are used on or near exterior surfaces.
- h) Recent indoor air chemistry analysis reveals that many home products release chemicals that react with ozone, and can produce a little smog factory within the home, despite lower concentrations of ozone indoors.
- i) The District and the DHS could collaborate in public outreach and education to deliver a message about how the choices people make in their home and work environments influence their both their health and ambient air quality.

Jack Broadbent, Executive Officer/APCO, requested that the Advisory Council review the role of the District in indoor air quality management and consider potential future agency programs in this field.

CONSENT CALENDAR

1. **Approval of Minutes of March 10, 2004.** Ms. Bailey requested that she be listed as “Present” at the meeting. Mr. Dawid requested that in the first sentence on page five, SB 2683 be changed to AB 2683, and on page six, first paragraph, AB 2683 be changed to AB 2628. So moved by Dr. Holtzclaw; seconded by Mr. Dawid; carried.

COMMITTEE REPORTS

3. **Report of the Joint Meeting of the Air Quality Planning and Technical Committee Meeting of April 6, 2004.** Mr. Brazil stated the Committees reviewed and discussed the stationary and mobile source control measures proposed for the District’s ozone strategy. The Air Quality Planning

Committee will make formal comments on the measures at its next meeting.

- 4. Report of the Public Health Committee Meeting of March 10 and April 19, 2004.** Ms. Weiner stated that the Committee met on March 10 to discuss presentations given at a previous Committee meeting on the precautionary principle and cumulative risk assessment.

On April 19, staff provided a presentation on the proposed Toxics New Source Review (TNSR) rulemaking and staff's response to the comments of the Environmental Law & Justice Clinic on it. Staff also gave a presentation on the District's Community Risk Reduction Plan (CARE). The Committee will meet this afternoon to discuss these two presentations.

Mr. Glueck inquired if the risk factor analysis will include health impacts from personal lifestyles such as smoking, and if indoor pollution may have a greater impact from a public health perspective than pollution from outdoors. Ms. Weiner replied that while this may be possible, it is not the Committee's charge. From a public health viewpoint, the issue concerns health-based criteria and permitting new sites in a community that may have many other sources of pollution. Adults may spend 90% of their time indoors, but children spend a lot of time outdoors.

Chairperson Blake added that staff had asked the Council in January to review the TNSR rulemaking with an eye to cumulative risk and the precautionary principle. The rulemaking process led the District to develop the Community Risk Reduction Plan to address cumulative risk, and staff asked for Public Health Committee review. The Committee will comment on the Plan in place of the earlier assignment and will not bring formal recommendations to the full Council on cumulative risk and the precautionary principle. Staff will give the Council an abbreviated presentation on the Plan for discussion at the Council's July meeting.

- 5. Report of the Executive Committee Meeting of May 12, 2004.** Chairperson Blake stated the Executive Committee met this morning and added to the list of review topics the issue of homeland environmental security, if time permits this year. The Deputy Clerk also provided a follow-up proposal on tracking Council recommendations and referrals to staff, and the Committee endorsed this procedure. Ms. Blake added that the Chairs of the Committees should be the vehicles through which Council members contact staff and request information, whether via e-mail or telephone.

OTHER BUSINESS

- 6. Report of the Executive Officer/APCO.** Mr. Broadbent stated:

- a) A \$52 million District budget is being proposed for FY 04/05. This includes \$500,000 for CARE; the Ozone Strategy; improvements to the computer database system; and some additional agency efficiencies. The Governor may propose a reduction of \$350 million in property tax revenues for special districts. The budget can be presented to the full Council following its adoption by the Governing Board.
- b) EPA recently designated the District as non-attainment for the 8-hour ozone standard.
- c) Council representation is sought on the Cost Recovery and CARE steering committees.
- d) Deputy APCO Peter Hess has been elected the President of the Air & Waste Management Association for 2006 and will be its President-Elect in 2005.

- e) The question raised at the previous Council meeting by Drs. Holtzclaw and Bornstein about a proposed revision to the toxics community right-to-know law will be answered via an e-mail to the Deputy Clerk for forwarding to the Council. The public comment period ends on May 20.
- f) The Supreme Court ruled last month that the South Coast AQMD lacks the authority to adopt fleet rules for private fleet operators that would have regulated emissions through purchase requirements. The Court ruled that these rules were de facto emission standards, and only the federal government may promulgate such. However, it still has not been decided whether such rules can be adopted for public fleets. The South Coast AQMD will seek a waiver from the EPA through CARB to keep in place the fleet rules that are directed toward public fleets. Staff will keep the Advisory Council apprised of further developments in this matter.

Ms. Bailey noted that the Court remanded the SCAQMD rules to a lower Court to be decided with regard to private fleets, and such rules as the yard hostler rule are still in place. The San Joaquin Valley APCD is will also move forward with a fleet rule for school buses.

- g) EPA announced this week its engine standards rule for off-road diesel engines, as well as future effective dates for rules regarding new on-road engines.

7. Report of Advisory Council Chair. Chairperson Blake stated that last week she and Vice-Chair Zamora met with the Mr. Broadbent in a periodic check-in to discuss Advisory Council direction.

8. Council Member Comments/Other Business. Mr. Dawid expressed an interest in seeing data comparing emissions from a new state-of-the-art bus fleet with emissions from a fleet that is experiencing a fairly rapid turnover. Ms. Bailey noted that the NRDC just released a report on achieving further emission reductions from the Port of Oakland. Chairperson Blake indicated she has received from the State Department of Health Services a document on environmental health surveillance.

9. Time and Place of Next Meeting. 10:00 a.m., Wednesday, July 14, 2004, 939 Ellis Street, San Francisco, CA 94109.

10. Adjournment. The meeting was adjourned at 12:04 p.m.

James N. Corazza
Deputy Clerk of the Boards