

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

APPROVED MINUTES

Advisory Council Public Health Committee Meeting  
1:30 p.m., Tuesday, February 15, 2005

- 1. Call to Order – Roll Call.** Chairperson Torreano called the meeting to order at 1:33 p.m. Present: Victor Torreano, Chair, Cassandra Adams, Elinor Blake, Jeffrey Bramlett. Absent: Linda Weiner.
- 2. Public Comment Period.** There were no public comments.
- 3. Approval of Minutes of October 25, 2005.** Mr. Bramlett moved approval of the minutes; seconded by Chairperson Torreano; carried unanimously.
- 4. Indoor Air Quality: An EPA Perspective.** Barbara Spark, Indoor Air Program Coordinator, U.S. EPA Region IX, stated she would address EPA's programmatic on indoor air quality (IAQ) its perspective on regulatory jurisdiction, collaboration with agencies on the state and local level, and its development of incentive programs. Also, EPA suggestions as to what role the District might play in IAQ management will be addressed. While EPA neither regulates IAQ nor comments on the IAQ regulatory work of other agencies, it does collaborate with other agencies and non-governmental organizations in emphasizing voluntary changes to behavior related to IAQ.

The State Department of Health Services has estimated that people spend 90% of their time indoors, where the air exchange is less effective than outdoors. The Total Exposure Method Assessment Study which occurred in the mid-1990's estimated that indoor concentrations can be two to five times higher than outdoor concentrations. Faculty at U.C. Berkeley estimate that a molecule released indoors is 1,000 times more likely to enter the lungs than one released outdoors.

Sources of air pollution include outside air (smog, traffic, pollen), construction and cleaning (adhesives, solvents, paints, insulation, ceiling tile), furnishings (carpets, upholstery, pressed-wood), office equipment (copiers, computer screens), combustions (stoves, tobacco, fireplaces), ventilation systems (dirty filters, moldy coils), and occupants (personal care products, pet dander, dry cleaned clothes). Indoor air toxics can also be found in concentrations two to five times higher than outdoor concentrations, and at times at even higher concentrations.

The US EPA Indoor Environments Division (IED) works to improve indoor air quality and its authority comes from Title IV of the Superfund Amendments and Reauthorization Act (SARA) of 1986, the indoor radon abatement Act of 1988, the Safe Drinking Water Act Amendments and various Assistance Agreements issued under Section 103 of the Clean Air Act. Under SARA, the EPA is not allowed to regulate and may only conduct research, development and related reporting, disseminate information and coordinate activities specified in the statute. EPA's program strategy is to take existing knowledge and turn it into practical guidance. This program has grown in the past decade and emphasizes guidance, training and public information and working with public and private sector partners to educate, train and promote exposure/risk reduction practices.

There are many variables in the study of IAQ, including study of the sources of pollutants, pollutant types, solutions, health effects, exposures, populations and other complicating factors. The health risks from IAQ 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, motor function, and increased cancer risks. Symptoms from indoor air pollution range from perception of bothersome odors, temporary mild discomfort, severe illness and permanent injury. Typical phrases describing indoor air pollution include “Building-Related Illness,” “Sick Building Syndrome” and “Multiple Chemical Sensitivity.”

EPA priority programs concern indoor radon, childhood exposure to environmental tobacco smoke, indoor asthma triggers, and indoor air quality in schools. In its IAQ programs, EPA collaborates with other agencies, such as the State Department of Health Services (DHS) and the California Air Resources Board (CARB). EPA has developed “Healthy Buildings, Healthy People: A Vision for the 21<sup>st</sup> Century” with an extensive network of stakeholders for cross-agency input. The EPA also participates on the Interagency Committee on Indoor Air Quality (CIAQ) with several co-chairs from the Consumer Product Safety Commission, Department of Energy, National Institute for Occupational Safety and Health, and the Occupational Safety and Health Administration. Members include representatives from the Departments of Agriculture, Defense, Commerce, Justice, State, Transportation, Interior and Housing & Urban Development.

EPA Region IX implements its core IAQ programs at the regional level through working with leading governmental, health and educational organizations, as well as with individual schools and people. EPA’s “Orientation to IAQ” program started in 1992 provides IAQ training for public officials. In 1995, EPA began providing training on mold in indoor environments at conferences that were attended by many public health and government officials. EPA’s “Tools for Schools” is another core program with many partners and involves considerable hands-on experience and the continuing development of new IAQ management tools. EPA also participates and consults on programs and policy on occupational health, with which the California Asthma Strategy is also involved. It also works with the California Endowment on Asthma/Environments Panel, the California Interagency Working Group, and provides grants to asthma study groups.

California regulation and authority provides for air exposure standards in several areas. Ambient air quality standards derive from CARB, while workplace standards and regulations are issued by the California Occupational Safety & Health Administration (Cal-OSHA). EPA Region IX partners for IAQ programs in schools with a variety of state agencies, the American Lung Association, and school district and administrator associations.

EPA research on IAQ is conducted through “Program needs for Indoor Environments Research” (PNIER) which covers such topics as pollutants, sources and health effects, human performance, IAQ measure and indices, building design and operation, homeland security and product technology and verification. EPA’s Building Assessment, Survey and Evaluation Study (BASE) has evaluated about 100 buildings in its in order to characterize indoor environments.

The Building Air Quality Alliance provided incentives in the form of recognizing buildings with good IAQ practices. However, support for this program for a variety of reasons was withdrawn. The Indoor Air Quality Education and Assessment Guidance (I-BEAM) provides education for commercial facilities on IAQ, and is intended for building managers. It provides them with tools to assess the air quality within the building and ways to make necessary corrections.

The EPA also assists building managers on mold remediation in schools and commercial buildings and has published guidance on this matter. The guidance document was published on the Internet before issued in hard copy: within two weeks there were 50,000 hits, and in two months 153,000.

The Asthma Strategic Overview includes a national awareness campaign and continues to promote World Asthma Day. The Overview also includes an in-home education program that manages existing grants and a health-care/managed-care program that works with key organizations to integrate environmental controls into clinical practice and standards of care. A School/Daycare program emphasizes education and supports established programs, and its results are tracked.

The EPA collaborated with the Institute of Medicine (IOM) in its report “Clearing the Air: Asthma and Indoor Exposures.” EPA’s “Tools for Schools Kit” identifies ways to improve IAQ at little or no cost through flexibly applied, voluntary means that are based on common sense and require little training. The program urges that everyone in the school community understand that indoor air is important to health, and have a basic understanding of the causes of indoor air pollution.

EPA’s Tools for Schools IAQ team members include teachers, administrative staff, health officers, facilities operators, school boards and students and parents. Program implementation begins with establishing an IAQ team and assigning an IAQ coordinator, conduct a walk through of the school, develop an IAQ checklist, and create an IAQ management identifying major priorities and repairs. The Tools for Schools program is needed now more than ever, despite the budget constraints at the state. Schools are poorly staffed for maintenance, custodial, repairs and teachers and staffs.

Additional resources include an IAQ Information Clearinghouse hotline at 1-800-438-4318 as well as the EPA’s own website at [www.epa.gov/iaq](http://www.epa.gov/iaq).

With regard to the role of District in IAQ, collaborative and complementary opportunities exist in:

- collaborating with /helping fund activities of regional asthma organizations working on asthma and IAQ—such as the Regional Asthma Management and Prevention Initiative.
- providing grants to organizations providing effective in-home asthma trigger education.
- supporting school districts implementing IAQ management plans or IAQ Tools for Schools, and partnering with US EPA on these and other local projects.
- further collaborative and complementary opportunities are to be found in the fields of research, education and outreach on the indoor impacts from candles, incense, scented cleaning products, wood smoke; indoor interactions between ozone and volatile organic compounds from scented cleaning products, education and outreach on indoor ozone generators and air cleaners.

The Council’s recent recommendation to the Board of Directors Executive Committee that an IAQ workshop be held in the Bay Area is a step in the right direction. This would provide follow-up to CARB’s May 2001 Symposium “Indoor Air Quality: Risk Reduction in the 21<sup>st</sup> Century.” The Council’s other recent recommendation that the District hire a graduate student to investigate the ambient/indoor air quality nexus would greatly benefit from receiving student selection input from Dr. Waldman of the State Department of Health Services, Peggy Jenkins of CARB, and U.C. Berkeley faculty members William Nazaroff , Ira Tager and Katherine Hammond.

In reply to Council member questions, Ms. Spark replied as follows:

- District contribution to indoor air pollution research in selected areas, such as scented indoor and personal care products and their potential interrelationship with asthma, would be useful. The question concerns exposures at low levels and what impacts these may have on health. A key component in this work includes education. However, manufacturers are not required to publish what is on their products, and it is unclear to what extent such information would be meaningful to people who read the labels. There are also some trade-secret elements involved with scented products that prevent their ingredients from being revealed on a product label.
- EPA is currently working on a source ranking database for indoor sources.
- The agenda of an IAQ workshop should be crafted in such a way as to steer the discussion into identifying the status quo and what role the District can play. It should not be allowed to become a forum merely for special interest groups. Suggestions as to the District's IAQ role would likely emerge from a well-directed discussion.

Mr. Colbourn noted that the District has asked the Council to preliminarily investigate IAQ, even though this field is not within the District's regulatory purview. Asthma experts are members of an advisory committee to a program that will assess neighborhoods with the greatest exposure to toxic air contaminants. The District does not presently intend to make IAQ a regulatory program.

Chairperson Torreano called for public comment, and Dr. Jed Waldman, State Department of Health Services, stated a workshop can help focus on the large yet simple ideas and insights as to what is unambiguously the case in terms of IAQ at this time. Many resources are applied to ambient air and yet people spend 90% of their time indoors. Citizens should be educated to improve and maintain residential good air quality. Purported indoor "air purifiers" release ozone into the home. Some residents are not careful on the storage of various chemicals. There is a link for the District here, in terms of exposure to harmful indoor air contaminants. It should be noted that the District is the most influential Bay Area agency when it comes to air quality issues.

Ms. Blake expressed interest in hearing from CARB on the matter of the indoor air purifiers that emit ozone, especially since CARB strongly advocates reduction in ambient ozone concentrations. She inquired if there are similar substances that have the similar indoor/outdoor dynamic that might be dealt with. She suggested that the Council consider whether the District could play a greater educational role in dynamics such as this in referencing substances in the home or office, building materials and ventilations. Mr. Colbourn replied that at the District's public meetings, offering a brochure on IAQ might be useful. Ms. Blake stated IAQ must not be overemphasized to the point that personal responsibility exceeds the need for the District to fulfill its regulatory charges.

- 5. Committee Member Comments/Other Business.** Chairperson Torreano noted that the State Building Trades Council will hold a conference on smoke in the workplace on March 1 in Martinez. Mr. Colbourn distributed a District brochure on wood smoke, air quality and asthma.
- 6. Time and Place of Next Meeting.** 1:30 p.m., Monday, April 18, 2005, 939 Ellis Street, San Francisco, CA 94109.
- 7. Adjournment.** 3:00 p.m.

*James N. Corazza*

James N. Corazza  
Deputy Clerk of the Boards