

California Interagency Working Group on Indoor Air Quality

Combined Meeting Notes:

March 23, June 15, September 14, 2005
DHS Richmond Laboratory Campus, Richmond
and
CalEPA Headquarters Building, Sacramento

SPECIAL PRESENTATIONS

GENERAL ANNOUNCEMENTS

AGENCY REPORTS ON CURRENT IAQ ACTIVITIES

[American Lung Association of California](#)

[Bay Area Air Quality Management District](#)

[California Air Resources Board / IAQ & Personal Exposure Assessment Program](#)

[California Department of Education / School Facility and Planning Division](#)

[California Department of Health Service / Environmental Health Investigations Branch](#)

[California Department of Health Service / Indoor Air Quality Section](#)

[California Department of Health Service / Occupational Health Branch](#)

[California Department of Health Service / Radon Program](#)

[California Department of Health Service / Tobacco Control Section](#)

[California Department of Industrial Relations \(Cal/OSHA\)](#)

[California Energy Commission](#)

[California Integrated Waste Management Board / Sustainable Building Program](#)

[Lawrence Berkeley National Laboratory / Indoor Environments Program](#)

[Office of Environmental Health Hazard Assessment](#)

[Southern California Environmental Health Sciences/Children's Environmental Health Center](#)

[UC Environmental Health & Safety Program](#)

[U.S. EPA Region IX / Indoor Environment Team](#)

[U.S. Federal Interagency Committee on IAQ](#)

FUTURE MEETINGS

SPECIAL PRESENTATIONS

March 23, 2005

Special Discussion Topic: Residential Air Cleaners & Ozone Generators

See handout and related links on ARB and DHS web sites:

<http://www.arb.ca.gov/research/indoor/aircleaners.htm>

<http://www.cal-iaq.org/cal-iaq%20indoor%20ozone.htm>

September 14, 2005

Investigation of "Sick" Residential and Workplace Buildings using a Computerized/Web-Based Occupant Health Survey Instrument

James Craner, MD, MPH, FACOEM, FACP, JC@EpiAQ.com

President, Verdi Technology Associates, LLC, Verdi, NV; Private Practice, Occupational & Environmental Medicine, Reno / Las Vegas, NV; Assistant Clinical Professor, Division of Occupational & Environmental Medicine, UCSF School of Medicine and Department of Internal Medicine, University of Nevada School of Medicine, Las Vegas

A software-based (stand-alone and web-based) technology for the customized collection of complex occupant health symptom data among a cohort of occupants of any workplace or residential building is described. Unique design features and analysis methods in the software are employed to minimize sources of bias, confounding, and effect modification. The data are analyzed in comparison to a control population using multivariate statistical methods to identify and quantify the building-relatedness, determinants and distribution of occupants' illness. The results of a case study is presented to highlight the power and utility of this new methodology, and its implications for diagnosing, treating, and preventing a significant amount of indoor air quality-related health complaints. Potential research and field applications of this technology in both problem and non-problem buildings are discussed.

[back to top](#)

GENERAL ANNOUNCEMENTS

EPA Healthy School Environments Assessment Tool (Beta Version) Available for Testing.

The U.S. Environmental Protection Agency is developing a new, completely voluntary, and fully customizable tool to help school districts conduct self-assessments of their school facilities for potential environmental health and safety hazards. The heart of the tool is a powerful database file that will let school districts customize the tool to manage all aspects of a facility assessment program. The tool comes pre-loaded with a checklist that integrates all of EPA's voluntary and regulatory programs for schools, and is designed so that states and school districts can incorporate their own policies and programs, producing a customized checklist and reference guidebook. To learn more about the draft Healthy School Environments Assessment Tool and download the Beta Version for testing, visit: <http://www.epa.gov/schools>. Contact: Bill Jones, US EPA Region 9 Children's Health, Schools and Air Quality (Marine Sector) 213-244-1817

[back to top](#)

AGENCY REPORTS ON CURRENT IAQ ACTIVITIES

American Lung Association of California

-- Bonnie Holmes-Gen (bhgen@alac.org)

<http://www.californialung.org/>

Check their web site (above).

[back to top](#)

Bay Area Air Quality Management District

-- Elinor Blake, eblake@igc.org

<http://www.baaqmd.gov/>

-- Saffet Tanrikulu, STanrikulu@baaqmd.gov

Check their web site (above).

[back to top](#)

California Air Resources Board / Indoor Air Quality & Personal Exposure Assessment Program

<http://www.arb.ca.gov/research/indoor/indoor.htm>

-- Peggy Jenkins (mjenkins@arb.ca.gov)

New Staff

The Indoor Program at ARB has welcomed several new, part-time staff members over the summer. Jim Behrmann, who serves as the ARB staff liaison to the Scientific Review Panel, and Dane Westerdahl, health advisor in the Research Division, have both been assigned to the Program. Each still has some other responsibilities, but will spend about 60-70% of their time on indoor air quality projects. Whitney Webber, a member of the Indoor Exposure Assessment Section at ARB, has taken a one-year leave of absence to complete her graduate work at the University of Washington. While she is gone, the section was able to use her position to hire two of its very capable Ph.D. students on half-time, one-year limited term appointments. Michael Robert and Chris Jakober, both students at UC Davis, have already contributed notably to the AB 1173 report and other section projects when working as student assistants for the section. We'll benefit greatly from their additional hours and focus. Mike is currently assisting with management of the new home study, and Chris is spending most of his time on ozone generator projects. We warmly welcome all of our new staff! Contact: Peggy Jenkins, mjenkins@arb.ca.gov.

Report to the Legislature on Indoor Air Pollution in California

The final report to the Legislature was approved by the Governor's Office over the summer and delivered to the Legislature. It is available on the web at <http://www.arb.ca.gov/research/indoor/ab1173/ab1173.htm>. Previously, the Assembly Select Committee on Air and Water Quality met on June 9 to consider the findings and recommendations of ARB's Report to the Legislature on Indoor Air Pollution in California.

Mike Scheible, Deputy Executive Officer, presented a brief summary of our key findings and options for mitigation to Chairperson Fran Pavley and Assemblywoman Sally Lieber, who initiated the hearing. Invited representatives from USEPA and the American Lung Association presented their view of the report's conclusions and suggested measures, and several representatives from industry commented as well. The Committee expressed concern regarding the substantial impacts of indoor pollution identified in the report (for California, over 2000 excess cancers per year due to all quantifiable indoor sources, and a cost of \$45 billion annually), and indicated action needs to be taken to reduce indoor exposures and risk. After the hearing, Assemblywoman Lieber was quoted as stating she intends to introduce legislation in the future to provide authority to address indoor air quality. Contact: Peggy Jenkins, mjenkins@arb.ca.gov.

“Air Purifiers” that Generate Ozone Indoors

Back in January 2005, staff presented information on portable “air purifiers” that purposely generate ozone indoors to the Board. They highlighted a U.S.EPA study that found some brands of these “ozone generators” can produce indoor ozone levels greater than three times the State ambient air quality standard of 90 ppb, one-hour average. The marketing for these devices has increased markedly in the last year, and is often targeted at vulnerable groups such as those with asthma and other respiratory disease. Staff concluded that agencies need clear regulatory authority to deal with this problem, and listed several brands and models of ozone generators currently on the market. The Board asked staff to seek action from the Attorney General's Office, and to return with options for actions to address this public health problem at a future Board meeting. The staff presentation and Board press release are both available at <http://www.arb.ca.gov/research/health/healthup/healthup.htm>.

As a result of the Board's concern, a new web page has been developed providing links to general information on air purifiers and air cleaners as well as a list of air purifiers that purposefully generate ozone: <http://www.arb.ca.gov/research/indoor/ozone.htm>. ARB's *Fact Sheet on Residential Air Cleaning Devices*, <http://www.arb.ca.gov/research/indoor/guidelines.htm>, has also been updated. Contact: Susan Lum.

Environmentally Preferable Purchasing (EPP) TASK FORCE

Staff from the Indoor Exposure Assessment Section attended several EPP Task Force meetings throughout the summer. The Task Force, chaired by CIWMB, has identified “quick win” projects to be completed in 2005. The first project is to develop an on-line EPP Best Practices Manual that will be available to guide purchasing officials in their purchases. A draft guide on copier paper and other preliminary materials were reviewed. There are a number of categories related to IAQ planned for the EPP Manual, such as cleaning products, paints, inks, and office equipment. Contacts: Dorothy Shimer, dshimer@arb.ca.gov, and Peggy Jenkins, mjenkins@arb.ca.gov.

U.S. EPA Pilot IAQ Program For Energy-Star Package

We met with Sam Rashkin, director of U.S. EPA's Energy Star Program, who visited CA to discuss a possible pilot program for EPA's new Indoor Air Quality Package. The Package is an additional set of specifications builders can meet, once a home design meets the energy

conservation-related provisions under the Energy Star program, to qualify for an “Energy Star - Indoor Air Package” label. Homes built using U.S. EPA’s indoor air specifications would have reduced indoor emissions, improved exhaust ventilation for combustion appliances, and other features to assure healthful indoor air quality as the homes are tightened for energy conservation. USEPA is interested in a possible pilot effort in California; pilot results would be used to fine-tune the specifications prior to taking the program nationwide. More information on the U.S. EPA’s Energy Star Program and Indoor Air Package is available at <http://www.energystar.gov/homes>. Contact: Peggy Jenkins, mjenkins@arb.ca.gov.

California Green Building Guidelines For Residences

Staff reviewed and commented on draft voluntary guidelines developed by the IWMB for “green” construction of new homes in California. The guidelines were focused on measures related to recyclability and conservation of resources, but also included a variety of measures related to indoor air quality, most notably measures to assure use of materials that emit little or no formaldehyde. The IWMB’s guidelines have subsequently been dropped (reasons unclear), but Alameda County may release a similar set of voluntary green construction guidelines in October. Contact: Peggy Jenkins, mjenkins@arb.ca.gov.

Ventilation and Indoor Air Quality Study in new Homes

A CEC-ARB study of ventilation and indoor air quality (IAQ) for new single family homes in California has just begun. The primary goals of the study are to determine whether new homes are ventilated adequately by the occupants’ use of windows, doors, and mechanical ventilation systems, and to assess the IAQ of new homes. This study is funded by the California Energy Commission (CEC). The contractor, Indoor Environmental Engineering (IEE), will measure indoor and outdoor levels of several VOCs, aldehydes, NO₂, PM_{2.5}, and CO for 24 hours in 100 homes. IEE will characterize the building ventilation features, potential indoor pollutant sources, and building operation and occupant activities. They will also measure the building ventilation parameters such as air exchange rate, indoor CO₂ levels, air flow rates from central air and exhaust systems, and the use of central air systems and windows. A subset of these homes will have mechanical ventilation systems designed to continuously provide outdoor air to the whole house. Some of the homes will also be tested for multiple days, multiple seasons, or multiple indoor locations.

This will be the first California study of ventilation and IAQ in a large number of homes in multiple regions and seasons. The ARB will use the study results to update exposure assessments to toxic air contaminants and criteria air pollutants, and to develop guidance for reducing indoor pollutant levels. The CEC will use the study results to revise state building design standards for energy efficiency, including the provisions for adequate ventilation. The pilot study is planned for the fall of 2005, and the field study will begin in early 2006.

Contact: Tom Phillips, tphillip@arb.ca.gov.

Review Of Research Proposals for Energy commission

We reviewed four exploratory research proposals for indoor air quality research for the Environmental Exploratory Grant Program in the Public Interest Environmental Research (PIER) Program of the California Energy Commission. The proposals addressed topics such

as improved air filtration in commercial buildings, the impacts of alternative ventilation strategies on indoor PM levels, and the relationships between mold and ventilation. The primary objective of this program is to fund projects which will provide the foundation for more-focused, larger-scale research development and demonstration projects that help resolve the environmental effects of energy production and use. The program has five focus areas: (1) indoor air quality; (2) outdoor air quality; (3) land use and habitat; (4) aquatic resources; and (5) global climate change. This program is administered by University of California, and allocates \$750,000 per year, with a maximum project award of \$75,000. Contacts: Tom Phillips, tphillip@arb.ca.gov, and Peggy Jenkins, mjenkins@arb.ca.gov.

Guidance For Land Use And Site Planning

We met with representatives of The Hoyt Company, a consulting firm for real estate developers in the Sacramento area, to expand on recommendations in ARB's Land Use Handbook, especially concerning indoor air quality, air filtration, and building ventilation. ARB staff explained the different approaches to reducing the air quality and noise impacts of roadway emissions on the occupants in nearby parks, homes, and other buildings. These approaches include maximizing the building setback from roadways, orienting windows away from roadways, improving air filtration efficiency and installation, and possibly increasing shrub and tree vegetation near the buildings. Staff also suggested considering seasonal and diurnal wind patterns when locating parks and outdoor sports facilities near major roadways. Contacts: Tom Phillips, tphilip@arb.ca.gov, and Peggy Jenkins, mjenkins@arb.ca.gov.

Updating the Indoor Criteria for CHPS Design Manual

Staff commented on proposed updates of the Best Practices Manual volume for K-12 school design, as part of the Technical Committee for the Collaborative for High Performance Schools (CHPS). CHPS consists of utilities and state agencies, and has been aggressively developing design and maintenance planning tools, training programs, and demonstration projects to promote sustainable, healthy public schools in California. The California Integrated Waste Management Board is helping fund the update of the Best Practices Manual volume on design. Staff commented on the sections of the manual dealing with reducing indoor air pollution from construction activities and the indoor emissions from building materials. The draft Best Practices design volume is planned for release this fall, after another Technical Committee meeting in September. Contact: Tom Phillips, tphillip@arb.ca.gov.

Insulation Manufacturer Provides Products without Formaldehyde

In December, 2004, ARB staff met with representatives of Johns Manville to discuss their formaldehyde-free insulation and the ARB Indoor Air Quality Guideline, *Formaldehyde in the Home*. Johns Manville manufactures fiberglass insulation for buildings with an acrylic binder rather than a formaldehyde containing resin. The Johns Manville company made a decision to manufacture formaldehyde-free fiberglass insulation to provide a "healthy" product to consumers and to circumvent emission regulations at factory sites. Their product has been tested by an independent laboratory and found to essentially emit no formaldehyde. Contact: Peggy Jenkins, mjenkins@arb.ca.gov

EPA Symposium on IAQ Management for Schools

Tom Phillips attended the annual symposium for [Indoor Air Quality \(IAQ\) Tools for Schools](#), sponsored by the USEPA and various health and education organizations. This symposium focuses on preventing IAQ problems in K-12 schools. Attendees included school personnel, and representatives of teachers' unions, administrator organizations, and other health and education organizations. USEPA developed the IAQ Tools for Schools program, and sponsors this meeting to share practical information among all US regions, and to present awards to successful programs. No California schools received Tools for Schools awards this year, but a few California districts were represented. Most presentations from the symposium are available at: <http://www.iaqsymposium.com>. Contact: Tom Phillips, tphillip@arb.ca.gov

[back to top](#)

California Department of Education / School Facility and Planning Division

-- Michael O'Neil (MOneill@cde.ca.gov) <http://goldmine.cde.ca.gov/facilities/>

William's Settlement - Uniform Complaint Procedures

As part of the settlement and resultant legislation for Uniform Complaint Procedures (UPC), school districts must respond in a timely manner to citizen complaints regarding immediate threats to health and safety in the classroom. These complaints may include IAQ issues. In addition, the complainant can appeal to CDE if they deem the district response to be inadequate and CDE then determines if the complaint/response is valid. CDE has received and is reviewing such complaint appeals (e.g., mold). If CDE finds that a complaint is valid and the district response inadequate, CDE must take steps to investigate and make recommendations for remedy to the State Board of Education.

2005 Legislation

- AB315 (Hancock) has become a two year bill. This bill would require districts that use future statewide school bonds to follow CHPS guidelines concerning energy efficiency and IAQ for new construction projects. The Bill was amended to include a funding mechanism and eliminate the requirement for modernization projects. With these amendments the bill is now supported by various school interest representatives.
- AB1297 (Evans) was approved has been sent to the Governor. This bill would require inspection, maintenance or repair of HVAC systems by only school district employees or contractors who have been certified by certain associations. This bill has been opposed by various school interest representative because the requirements will be extremely expensive to implement and contains no funding provisions. It would be a reasonable guess that the Governor will veto this bill.

Naturally Occurring Asbestos (NOA)

Previous USEPA and ASTDR investigations into NOA in the El Dorado Hills, including several schools sites, had determined that the levels detected were of concern and that precautionary mitigation and further health investigations and comparison with other areas were warranted. Recently the USEPA and ASTDR have reversed there earlier commitment to conduct comparison studies in other areas outside of the ElDorado Hills to determine if the results of activity based sampling are out of the ordinary. They have instead decided to use

computer modeling based upon existing data. The affected districts have indicated their desire to pursue comparison studies and may challenge the prior study methods used which would overstate the presence of harmful types of asbestos. The Department of Toxic Substances Control (DTSC) has developed NOA draft Operation and Maintenance (O&M) guidelines for sites that have been remediated for NOA. Districts must commit to long term (forever) monitoring and reporting to confirm that NOA safety issues will not reoccur on the sites.

USEPA - Healthy Schools Environmental Assessment Tool (HSEAT)

CDE has met with US EPA, reviewed HSEAT and has actively provided information to school district about the pilot tests and the upcoming release of the model.

CHPS

CDE has a non-voting seat on the CHPS board. CHPS is currently updating its Best Practices manuals. CDE has participated in the review and comment of "Volume 1 - Planning." <http://www.chps.net/manual/index.htm>. CHPS has created a low-emitting materials list. http://www.chps.net/manual/lem_overvw.htm In addition, CHPS has developed specifications for high performing relocatable classrooms. <http://www.chps.net/links/pdfs/RelocatableClassroomSpec.pdf>

Schools Workgroup

The Division of State Architect (DSA) has been charged by the Governor to ensure that all state buildings are energy efficient, Executive Order S-20-04. To that end DSA has created the Green Action Team to recommend standards, etc. CDE is member of a sub-committee, the Schools Workgroup. Although Executive Order S-20-04 is more concerned with energy efficiency, the Schools Workgroup is recommending that the CHPS standards are adopted. If the CHPS standards are adopted for energy efficiency it should add more weight to their IAQ recommended standards, as well.

Air Quality in School Site Selection

CDE has reviewed a June 2005 draft document prepared by ICG Consulting for the South Coast Air Quality Management District which provides guidance in selecting school site locations that mitigate effects of airborne pollution. CDE will continue to monitor and provide input as necessary.

[back to top](#)

California Department of Health Service / Environmental Health Investigations Branch

<http://www.dhs.ca.gov/ehib/>

-- Sandra McNeel (SMcNeel@dhs.ca.gov)

Asthma.

BASTA (the **B**order **A**sthma & **A**llergies Study) is a school-based survey of 13 and 14 year olds with asthma, asthma symptoms and allergies in Imperial County. Funded by the Centers for Disease Control and Prevention, and conducted by researchers in the Exposure Assessment Section of Environmental Health Investigations Branch, this study will examine

family, environmental (including indoor factors) and socio-economic influences on asthma. Field work, including administration of 3300 health and exposure questionnaires, as well as lung function testing (spirometry and exhaled nitric oxide) in a subset of about 136 students was recently completed. Asthma prevalence and risk factors in this student population will be compared and contrasted with a similar group of students on the Mexican side of the border. Investigators plan to complete these goals by August/September 2005. For more information about this study, please contact: Lori Copan lcopan@dhs.ca.gov.

Environmental Health Tracking.

The California Environmental Health Tracking Program (CEHTP) is seeking applications for projects that increase or demonstrate organizational and/or community capacity around environmental health data, indicators, and information. CEHTP seeks to fund projects that better position a target audience to utilize data – from existing environmental monitoring/health surveillance systems and a future environmental health tracking system – to inform and perform public health functions and services. Non-governmental organizations, city and county governmental agencies, and tribal governments/agencies are eligible to apply. The maximum grant amount is \$12,000 per project; grant term is from November 2005 through May 2006. Grant application deadline is October 19, 2005. For more information, see the CEHTP Fall 2005 newsletter at <http://www.catracking.com/sub/nl.htm> or contact Eddie Oh at eoh@dhs.ca.gov or 510-620-3698.

California Breathing.

California Breathing is a program working to address asthma in California from a public health perspective. Its purpose is to advance strategies outlined in the Strategic Plan for Asthma in California, a roadmap developed collaboratively by government agencies, asthma experts, community groups, and others to improve asthma prevention, treatment, policy, data, and public education. The program expects to launch a new web-based, multimedia Asthma Education Center in the next calendar quarter. For additional information, please contact Barbara Cowan at bcowan1@dhs.ca.gov.

Publications & Presentations.

- Windham GC, Mitchell P, Anderson M, and Lasley BL. 2005. Cigarette Smoking and Effects on Hormone Function in Premenopausal Women. *Environ Health Perspect*: doi:10.1289/ehp.7899. [Online 3 June 2005]
<http://ehp.niehs.nih.gov/docs/2005/7899/abstract.html>
- Sandy McNeel discussed “Mold in Housing – Current Status of Health Effects Knowledge and Mold Regulation” at the Annual Educational Symposium of the California Environmental Health Association, March 26, 2005

[back to top](#)

California Department of Health Service / Indoor Air Quality Section

-- Jed Waldman (JWaldman@dhs.ca.gov)

<http://www.cal-iaq.org/>

-- Toni Stein (Tstein@dhs.ca.gov)

New Staff Joins DHS-IAQS

Dr. Antoinette Stein joined DHS IAQ Program as an Air Pollution Research Specialist (APRS) in May 2005, filling the vacancy left by Leon Alevantis (who accepted a promotion to Senior Mechanical Engineer with DHS' Program Support Branch). Toni recently held an appointment at UC (Irvine/Davis) investigating engineering solutions and policy implications of toxic management of electronic waste. She completed her Ph.D. in Environmental Engineering -Air Quality Control at the University of Cincinnati, investigating gas-solid reaction pathways of NO_x/SO_x from coal burning power plants. Her research fellowship was co-funded by the Electric Power Institute and the US Department of Education.

Previously, Toni spent 7-plus years at General Electric Corporation in Medical Systems and Aircraft Engines Divisions R&D Laboratories, where she worked on developing advanced high temperature materials and processes. She holds a M.S. in Engineering (Manufacturing Processes and Systems) from Milwaukee School of Engineering and a B.S. in Engineering Mechanics from University of Wisconsin-Madison.

Toni actively serves in technical positions in her community. She is a member of the San Mateo County Congestion Management and Air Quality Commission (CMAQ, and also served on their Solid Waste Advisory Commission. She has served as a member on the 9-county BAAQMD Hearing Board. She spent four years on land use applications on the Menlo Park Planning Commission. She created and leads the Zero Waste Task Force (ZWTF) of San Mateo, Santa Clara, and San Benito Counties, a project of Acterra, a non-profit environmental sustainable education organization.

Toni Stein can be reached at 510-620-2861 and tstein@dhs.ca.gov.

Tire Derived Flooring Study

In June 2005, OEHHA executed a contract with the Public Health Institute (PHI) funding a study of VOC emissions of tire-derived rubber flooring. The study is supported under OEHHA's cooperative agreement with CIWMB to develop indoor reference exposure limits (IRELs) for a set of VOCs, with funds from the Tire Fee Fund.

Under the PHI contract, Weldon Hall and Paola Taranta were hired to assist DHS staff in conducting the study. Flooring manufacturers producing tire-derived rubber products were identified (about 80 including 15 in California). Criteria were determined to define the scope of materials that could be selected for use in the study. Testing Protocols and Instruction to Manufacturers for Submission of Product Specimens were drafted to assure quality and to obtain manufacture data. Special shipping kits have been assembled to send to participating manufacturers. A letter of request for participation was sent from CIWMB to manufacturers asking for their support and cooperation. A meeting was held at DHS with the project advisors in August, and specimen testing started in September, continuing into early 2006.

Besides the routine 14-d test interval (i.e., emission rates determined at 14 d after beginning the conditioning), longer-term tests will continue to 28 d, 60 d, and 90 d.

In August, IAQ staff held a conference call with the Institute for Research in Construction at the National Research Council Canada to facilitate linking pertinent information. The NRC Canada group is developing a comprehensive VOC emission database for commonly used building materials.

DHS Standard Practice & Section 01350

DHS-IAQ continues to support implementation and applications of the DHS Standard Practice for the Testing of Volatile Organic Emissions from Various Sources using Small – Scale Environmental Chambers, <http://www.dhs.ca.gov/IAQ/VOCS/Practice.htm>

The Standard Practice presently includes a copy of the Memorandum of Understanding (MOU) that was forged with the Carpet Research Institute for equivalency reference of the States 01350 requirements and testing protocols with those of the CRI Green Label Plus certification program. We are continuing to engage a variety of certification programs that currently reference the DHS Standard Practice or wish to in the future.

Green Action Team Workgroups

The Green Action Team was established to recommend strategies on sustainable building practices for State facilities to support the Governor’s Green Building Executive Order S-20-04 (http://www.governor.ca.gov/state/govsite/gov_homepage.jsp). DHS serves on three workgroups, as part of multi-agency, interdisciplinary teams providing the technical support to the GAT. These workgroups have been chaired by Roy McBrayer and Ron Joseph of DGS. The ***Building Construction and Operation Workgroup*** has largely addressed energy issues. The ***Schools Workgroup*** was tasked with reviewing existing guidelines to select the best suited to provide the “technical resources and guidelines that will enable and encourage schools built with state funds to be resource and energy efficient.” The workgroup selected the Collaborative for High Performance Schools (CHPS) guidelines because they are both specific to California and to schools. After making its selection, the workgroup conducted a survey of school district representatives, architects, and other stakeholders to obtain feedback on the recommendation. They have also been working on web-based information to broadcast the guidelines, and information on incentive programs for green building and identification of metrics to quantify the benefits of implementation of CHPS guidelines for the State. The focus of the ***Environmentally Preferable Purchasing (EPP) Workgroup*** has been to promote and continually increase state purchases that eliminated waste, improve our environment, and provide healthier work conditions, effectively use our natural resources and provide best value products. The Work Group decided to develop a Best Practices Manual for guidance for procurement specialists. DHS staff has actively participated in defining the formats for the chapters and also serve as subject matter experts for the chapters on carpets, copiers, furniture systems, and janitorial products. We have also been a proponent of establishing an accessible tracking system (database).

Carpet Sustainability

In August 2005, DHS hosted a meeting with the Carpet Research Institute (CRI) at the Richmond Campus. Attendees included Frank Hurd from CRI, Bill Orr and Dana Papke of

CIWMB, and Richard Lam of OEHHA. The meeting continued our dialogue on issues surrounding emission testing. Frank discussed the newly establish CRI Green Label for Adhesives: agreements had been reached with adhesive manufacturer for CRI to oversee the certification of VOC emission testing on all adhesive products, not only those used with carpets. DHS agreed to work with CRI to draft an MOU to incorporate into the current DHS Standard practice for use in Section 01350. DHS requested CRI to provide adhesives testing data from their present adhesives database to review. Data is needed to ascertain emissions on applications where the adhesives are used in assembly with carpet systems as there may be interactions with the carpet backings.

Also, we are working with CIWMB and others in establishing a broader certification standard that addresses all aspect of carpet sustainability, including IAQ. This Standard aims to combine the State EPP goals and the national Sustainable Textile Standard's criteria, developed by The Institute for Market Transformation to Sustainability).

Meeting with Greenguard Environmental Institute

CIWMB hosted a meeting with Greenguard's CEO, Carl Smith and Air Quality Sciences, CEO and Chief Scientist, Marilyn Black. Attendees included DGS, DHS, CARB, and OEHHA. Smith & Black gave a presentation on the general goals of Greenguard and its new initiatives. They were interested in moving toward harmonization between the Greenguard certification program and CA Section 01350. They described their recent applications to ANSI to develop 13 standards (3 are mold related) for certification and labeling programs with priority in the area of insulation, office furniture, and product emissions standard for children & schools. The "children & schools" appears to be the closest fit to CA Section 01350 requirements. It was noted that BIFMA has also made an ANSI application for office furniture. Some general discussion occurred on test duration difference (one week vs. 14 day) between the AQS testing and DHS's Standard Practice used for Section 01350. Follow-up discussions will address review of test protocols and compiled data to compare 1-week vs 14-day test durations; the ANSI roadmap for their standard development process; and an open system for outside labs to have equal access to do Greenguard testing and meet quality standards for reliable testing. Greenguard has been asked to include State staff on the ANSI consensus team for the standard development.

NIOSH Novel Personal Bioaerosol Sampler

Field sampling completed and laboratory results received; Field data being summarized and analyzed; Chamber trials begun. Contact: Janet Macher, jmacher@dhs.ca.gov.

CARB Fresno Asthmatic Children's Environment Study (FACES)

A paper is being prepared for the *Journal of Exposure Analysis and Environmental Epidemiology*: Assessment of Pollen Grain and Fungal Spore Exposures for an Epidemiological Study of Asthma in Children (Mervi Hjelmroos-Koski). Contact: Janet Macher, jmacher@dhs.ca.gov.

Underground Tetraethyl Lead

Toni Stein is providing support to EHIB on exposure issues relating to a site in Merced County known as Nicoletti Oil. In 1988, several underground storage tanks (USTs) with

aviation fuel or waste oil were removed. Currently, commercial and residential areas are adjacent to the site. In early May 2005, organic lead, tetraethyl lead (TEL) was detected under the site. TEL was an additive used in petroleum products prior to 1985 and is now banned from use. The water table is 4ft from surface and TEL was detected in indoor air in nearby residences. IAQS & EHIB staff are evaluating the testing plan and protocols.

IAQ Assistance Line (Asthma Trigger Outreach)

We continue to field a wide variety of queries from the public surrounding indoor air quality issues in the communities throughout the state. They contact us through referrals from local agencies or by finding our website. On average, 10 calls per week, plus an equal number of emails, come in on a wide variety of topics. Indoor mold remains the predominant topic of concern.

CHPS Technical Committee

DHS and ARB have provided the CHPS Technical Committee recommendations to update the CHPS' Best Management Practice Manual Volume III, specifically on the IEQ pre-requisites and credits. These include minimum ventilation, effective ventilation, construction measures, low emitting materials, and moisture mitigation and source control.

US EPA BASE Study

Feng Tsai (now with OEHHA) gave a platform presentation at Indoor Air 2005, Beijing, China: Airborne fungal concentrations in 100 Large U.S. Office Buildings from the BASE study

U.S. EPA's Healthy Schools Environmental Assessment Tool (HSEAT) for Schools

Toni Stein attended a workshop presentation on U.S. EPA's Healthy Schools Environmental Assessment Tool (HSEAT) for Schools on September 21, 2005. The tool includes an IAQ Assessment. Next steps involve tailoring the tool to California specific.

Cash Workshop

On Aug. 2nd, Toni Stein attended the Coalition for Adequate School Housing (CASH) workshop entitled, "Designing Schools to Meet CHPS and LEED Standards" This workshop provided critical information on a range of topics:

- o Collaborative for High Performance Schools (CHPS)
- o Leadership in Energy and Environmental Design (LEED) standards,
- o DSA review process
- o Upcoming energy code changes
- o Programs and funding available to implement LEED and CHPS
- o Oakland Unified School district case study on designing energy efficient, high-performing, sustainable school buildings
- o Programs and services available through local utility companies to assist school districts in designing and operating energy efficient schools.

Also the GAT Schools workgroup decision to recommend the CHPS guidelines was announced.

[back to top](#)

California Department of Health Service / Occupational Health Branch

-- Liz Katz (Ekatz@dhs.ca.gov)

<http://www.dhs.ca.gov/ohb/>

Service Workers, Customers' and Patients' Indoor Air Quality.

In certain environments, indoor air issues may affect both service workers and others who are present, including customers, patients, students, and other workers. HESIS provided supplementary input on this issue for the AB 1178-mandated CARB report, "Indoor Air Pollution in California." A scientific review panel requested CARB to add non-industrial workplace IAQ issues to the report. HESIS submitted information on the IAQ aspects of selected service industries, including schools and preschools, hair and nail salons, dry-cleaning shops, asphalt roofing fume (HVAC intake), janitorial cleaning products, facilities that have increased risk for tuberculosis transmission, flood cleanup work, and pesticides on aircraft.

Cosmetology School Indoor Air Quality Investigation.

HESIS conducted a public health field investigation in response to calls from four students at a single school of cosmetology. The students complained of frequent headaches, dizziness, and unsanitary work conditions. A public health investigation was performed by the HESIS industrial hygienist and an occupational medicine physician. The site visit included a cross-sectional health survey of students and staff, as well as an industrial hygiene walk-through and ventilation evaluation. Preliminary results indicate inadequate ventilation in the facility, and an association of headache and dizziness with the room where cosmetic products are used.

[back to top](#)

California Department of Health Service / Radon Program

-- George Faggella (GFaggell@dhs.ca.gov)

<http://www.dhs.ca.gov/radon/>

Check their web site (above).

[back to top](#)

Tobacco Control Section

-- Joanne Wellman-Benson (jwellman@dhs.ca.gov)

<http://www.dhs.ca.gov/TCS>

Tobacco Control Anniversary.

To observe the 15-year anniversary of the Prop 99 implementation and the 10-year anniversary of smoke-free workplaces, TCS held a press conference on January 25, 2005, at the Winston Churchill Middle School in Sacramento. In addition to students from the school, the speakers included the Director, Department of Health Services (DHS); the State Public Health Officer, DHS; the Secretary of the California Health and Human Services Agency (CHHSA); and the author of California's Smoke-free Workplaces Law.

Smoke-free Indian Casinos

A strategy to promote smoke-free Indian casinos in California is being developed under the auspices of the California Dialog on Cancer. The smoke-free Casinos Subcommittee (of the Prevention Committee) is comprised of people with expertise in working with Indian casinos or with tribal issues. The goals are to create awareness that patrons want smoke-free casinos through demonstration of support by patrons and to demonstrate that potential patrons are staying away from casinos because of the smoking environment; to create awareness that working in smoking environments are injurious to the health of casino employees; and to communicate how tribes would benefit from establishing smoke-free casinos, such as decreased staff turnover, decreased insurance costs, more patrons and patrons who stay longer, etc. The American Indian Tobacco Education Partnership developed a guidebook to help communities approach this issue.

Secondhand Smoke Training

TCS awarded a statewide grant to ETR to provide secondhand smoke training and technical assistance to TCS-funded grantees and other entities, as well as to conduct advocacy campaigns to promote smoke-free environments. Their advocacy campaigns will consist of promoting smoke-free units of market-rate and subsidized housing developments and smoke-free gaming area policies.

Attitudes about Smoke-free Environments

A Field Poll conducted in Fall 2004 assessing Californians' attitudes about smoke-free environments showed the following:

- 90% including the majority of smokers, said they approve of smoke-free worksites
- 52% of former smokers who quit in the past 10 years said that having smoke-free public places made it easier for them to attempt to quit smoking
- Nine out of ten Californians indicated they were more likely to visit Indian casinos or would not change patronage if smoking were prohibited in casinos
- Sixty-seven percent agreed that apartment complexes should require that at least half of their rental units be smoke-free

Multi-housing Issues

In April a conference of housing industry professionals and the public health community was conducted by a TCS-funded project to educate them about the viability and economic and health benefits of smoke-free multi-unit housing, with the ultimate goal of creating smoking-permitted and non-smoking sections in affordable and market rate apartments and senior housing. Additional efforts are underway to develop a campaign surrounding smoke-free multi-unit housing.

Secondhand Smoke Conference

A Secondhand Smoke statewide conference will be held in San Diego in Spring 2006. An in-person planning meeting of the Secondhand Smoke Workgroup will be held in October to determine the agenda. TCS intends to have a speaker report on the ARB report about ETS as a Toxic Air Contaminant.

[back to top](#)

California Department of Industrial Relations (Cal/OSHA)

--Bob Nakamura (bnakamura@hq.dir.ca.gov)

<http://www.dir.ca.gov/dosh/>

IAQ Advisory Committee.

The first meeting was held on November 20, 2002, in Oakland. The recent California Energy Commission revisions to the building code were presented and discussed. Possible revisions to General Industry Safety Orders 5142 and 5143 were also discussed. A second meeting was held on March 6, 2003. Attendees discussed the modified proposal for the use of DCV that CEC plans to submit for rulemaking within the next few weeks. Attendees also discussed suggested changes to Title 8, Section 5142. The modifications are intended to address problems in identifying the entity that can make changes to a HVAC system in a workplace.

Laboratory Fume Hoods: 8CCR 5154.1.

The Division convened five advisory committee meetings to evaluate two different petitions requesting the Standards Board to reduce ventilation rate requirements and establish a performance standard in place of the existing regulation that relies on face velocity measurements. The final draft proposal was discussed by the Occupational Safety and Standards Board at the hearing held on September 16, 2005 in Sacramento. At the hearing, comments were received on the proposed changes and the Division and Board are evaluating the proposal in response to those comments. The Division coordinator is Steve Smith who can be reached at 916-574-2996..

Respiratory Protection for Tuberculosis

Federal OSHA announced at the end of 2003 that it would be revoking its temporary standard pertaining to respirators used to protect employees from TB exposures, and apply the general industry respiratory protection standard to that segment of respirator users. This accompanied an announcement that OSHA would not promulgate a comprehensive TB standard as planned. The primary effect of this change was to require annual fit testing for respirators used during occupational exposure to TB.

In response to requests from the regulated public made during this rulemaking, the Standards Board requested the Division to conduct advisory meetings for developing a standard to regulate exposures to airborne infectious diseases. Consequently the Division has conducted several general meetings starting on July 20, 2004 with the most recent held in Los Angeles on September 28, 2005. The next meeting is scheduled for December 8, 2005 in Oakland at 1515 Clay Street in Room 11 from 930-400. The Division contacts are Deborah Gold who can be reached at 510-286-7006, and Robert Nakamura who can be reached at 510-286-7005.

Airborne Contaminants: 8CCR 5155.

The advisory committee ended its review process in March 2004. A group of substances with PELs (permissible exposure limits) set at the TLV (threshold limit value) were first heard at the December 2003 Standards Board Hearing and adopted and the changes took effect in November 2004. A second set of substances, including glutaraldehyde, which had PELs

recommended at or below the TLV were reviewed at the Standards Board hearing on September 15, 2005 and final adoption is pending further review.

The Division conducted an advisory meeting of a group of substances, including silica on May 18, 2005. Further action will be scheduled for this group. The next meeting is scheduled on December 12, 2005 at 1515 Clay Street in Oakland. For more information about this group of chemicals, contact Bob Barish at 510-286-7002. A separate group of chemicals are being evaluated as sensitizers. These have been discussed at separate meetings. The most recent was September 16, 2005 and the next meeting has not yet been scheduled.

For information contact Steve Smith at 916-574-2996. Current information and documents for these meetings can be found on the Division of Occupational Safety and Health website at: http://www.dir.ca.gov/dosh/DoshReg/advisory_committee.html

[back to top](#)

California Energy Commission

-- Obed Odoeme lam (Oodoemel@energy.state.ca.us)

Several of the Commission's ongoing projects of specific relevance to indoor environmental quality are presented on the website of our Public Interest Energy Research (PIER) Program at : <http://www.energy.ca.gov/pier/buildings/projects> . Related 1996-2005 publications are also listed for each issue area.

There is an ongoing investigation of health complaints about indoor air quality on one of the floors of the Energy Commission Building. Results of preliminary testing by Microtest Laboratories suggest a case of specific sensitivity to the causative agents at issue. More involved investigations are planned by the Department of General Services.

[back to top](#)

California Integrated Waste Management Board / Sustainable Building Program

<http://www.ciwmb.ca.gov/GreenBuilding>

-- Dana Papke (DPapke@CIWMB.ca.gov)

-- Kathy Frevert (KFrevert@CIWMB.ca.gov)

The **California Strategic Sourcing Initiative** is a major effort underway at DGS to consolidate purchasing, obtain better leverage, and save money. The Environmentally Preferable Purchasing Task Force has been invited to participate and has representatives involved who are commenting on specifications and encouraging the inclusion of EPP language into state contracts. We view this as a long term process to make continual improvements and it includes IAQ along with other environmental considerations.

<http://www.pd.dgs.ca.gov/StratSourcing/default.htm>

[back to top](#)

Lawrence Berkeley National Laboratory / Indoor Environments Program

-- Mike Apte (MGAPte@lbl.gov)

<http://eetd.lbl.gov/IE.html>

Check their web site (above).

[back to top](#)

Office of Environmental Health Hazard Assessment / Indoor Air Risk Assessment Group

<http://www.oehha.org/>

-- Richard Lam (RLam@oehha.ca.gov)

-- Janice Kim (jkim@oehha.ca.gov)

OEHHA Study on Fine Airborne Particles.

In one of the first studies of its kind, scientists at OEHHA and the University of California (UC) have found that fine particles emitted by motor vehicles and other sources may increase deaths from heart and lung ailments in California. The study found associations between levels of fine particles in nine California counties and deaths from heart and lung ailments in the general population of those counties, particularly among diabetics, people with respiratory and cardiovascular diseases, the elderly, and women. This study provides support for initiatives by both the state and federal governments in recent years to specifically regulate fine particles.

Press release : http://www.oehha.ca.gov/public_info/pdf/PM25press.pdf

The OEHHA study is available on-line at

<http://ehp.niehs.nih.gov/members/2005/8335/8335.pdf>.

Reevaluation of 1,2-dichloroethane.

OEHHA has surveyed the scientific literature for recently published researched studies to determine if there are new toxicity studies on 1,2-dichloroethane that would warrant revising the Public Health Goal (PHG) of this chemical. New data were found that can provide some further insight on the toxic effects of 1,2-dichloroethane, but nothing was found that sheds any further degree of certainty upon the carcinogenicity status of 1,2-dichloroethane.

Although there is no basis for proposing a change to the PHG, a few recent studies provide additional information on the toxicity of 1,2-dichloroethane. This 1,2 Dichloroethane PHG update including references is available on-line at

<http://www.oehha.ca.gov/water/phg/pdf/12dcamemo.pdf>.

Gasoline–Related Emissions Document.

Gasoline powered vehicles emit a variety of volatile organic pollutants, including alkanes, alkenes, aromatic hydrocarbons and oxygenates. The pollutants that are emitted at the tailpipe and that evaporate from the fuel system are not necessarily the same as those to which the population is exposed, due to the atmospheric transformation processes that these pollutants undergo. The primary objective of this research effort was to identify atmospheric products associated with gasoline combustion and evaporative emissions that may pose a toxicological concern or may be present at relatively high levels in the atmosphere. A secondary objective was to assess the atmospheric lifetimes of gasoline-related pollutants, as

constituents with longer lifetimes would be of greater exposure concern. The draft document “Atmospheric Chemistry of Gasoline-Related Emissions: Formation of Pollutants of Potential Concern” is available on-line at [http://www.oehha.ca.gov/air/pdf/Atmospheric Chemistry Overview.pdf](http://www.oehha.ca.gov/air/pdf/Atmospheric_Chemistry_Overview.pdf).

Carcinogenicity of 1,2,4-Trichlorobenzene.

The Carcinogen Identification Committee of the OEHHA’s Science Advisory Board at their August 12, 2005 meeting did not find that 1,2,4-Trichlorobenzene had been “clearly shown through scientifically valid testing according to generally accepted principles to cause cancer.” Accordingly, this chemical was not placed on the Proposition 65 list of chemicals known to the state to cause cancer. The final hazard identification document, *Evidence on the Carcinogenicity of 1,2,4-Trichlorobenzene*, is available on-line http://www.oehha.ca.gov/prop65/hazard_ident/pdf_zip/HID124Trichlorobenzene_final.pdf

Environmental Protection Indicators for California (EPIC) 2004 Update. The EPIC Project, led by OEHHA, is responsible for developing and maintaining a set of “environmental indicators” for California. In 2002, the EPIC released its first report, *Environmental Protection Indicators for California*. is available on-line at <http://www.oehha.ca.gov/multimedia/epic/#epic>. This 300-page report has 84 indicators dealing with air quality, water quality, water supply and use, waste management, pesticides, transboundary issues, human health, and ecosystem health.

In December 2004, updated data are available for 43 of the 50 “Type 1” indicators. Type 1 indicators are those supported by ongoing, systematic data collection, and for which sufficient data are available for presenting a status or trend. This 89 page report is only available on-line: <http://www.oehha.ca.gov/multimedia/epic/pdf/EPICupdate2004a.pdf>.

Art Hazard List and Guidelines Update. The list of art and craft materials which cannot be purchased for use in Grade K-6, and the guidelines for the safe use of art and craft materials have recently been updated. Updated Art Hazards List and Guidelines are available on-line at: <http://www.oehha.ca.gov/education/art/getart.html>

Final Hazard Identification Document for Phenol. The housing and construction industries are considered to be the largest user of phenol in the U.S. Exposure to phenol indoors can occur from contaminated drinking water or from use of consumer products containing phenol. Phenol is also found in exhaust gases of cars, in cigarette smoke, and in emissions from incinerators and wood fires. The document for Phenol is on-line at http://www.oehha.ca.gov/prop65/hazard_ident/012005phenol.html

Safe Use Determination for a Hand-to-Mouth Transfer Factor for Lead. OEHHA has received a request from the Sports Fishing Coalition that OEHHA grant a safe use determination for a hand-to-mouth transfer factor for lead. The request for a lead transfer factor is confined to lead transferred to the mouth from the hand, which has handled fishing tackle products containing lead. Notice of a Public Hearing for Comment on a Request for a Safe Use Determination for a Hand-to-mouth Transfer Factor for Lead is available at http://www.oehha.ca.gov/prop65/CRNR_notices/safe_use/sud_pb.html

Proposition 65.Listing. Butyl benzyl phthalate (BBP), Di-n-butyl phthalate (DBP), Di-n-hexyl phthalate (DnHP), Di-isodecyl phthalate (DIDP) listing under Proposition 65. See http://www.oehha.ca.gov/prop65/CRNR_notices/admin_listing/intent_to_list/#docs.

Chemical	CAS Number	Toxicological Endpoints	Some Indoor Uses	Reference
Butyl benzyl phthalate (BBP)	85-68-7	developmental toxicity	Plasticizer in plastics used in vinyl tiles, artificial leather, automotive trim, etc.	NTP-CERHR (2003b)
Di- n -butyl phthalate (DBP)	84-74-2	developmental toxicity, female reproductive toxicity, male reproductive toxicity	Coalescing aid in latex adhesives, plasticizer in cellulose plastics and solvent for dyes.	NTP-CERHR (2003c)
Di- n -hexyl phthalate (DnHP)	84-75-3	female reproductive toxicity, male reproductive toxicity	Used in the making of plastisols that are subsequently used in the manufacture of various automobile parts, and dip-molded products (tool handles, dishwasher baskets). DnHP may be added to the polyvinyl chloride (PVC) utilized in the manufacture of flooring, canvas tarps, and notebook covers. Also, used in toys, vinyl gloves, weather stripping, flea collars, and shoes.	NTP-CERHR (2003d)
Di-isodecyl phthalate (DIDP)	68515-49-1 ¹ 26761-40-0	developmental toxicity	Plasticizer in a wide range of PVC plastic products. These include coverings on wires and cables, artificial leather, and carpet backing.	NTP-CERHR (2003e)

¹DIDP is a complex substance, assigned two different CAS Numbers. See NTP-CEHR (2003e) for details.

[back to top](#)

Southern California Environmental Health Sciences and Children's Environmental Health Center (University of Southern California & UCLA)

-- Andrea Hricko (scehsc@usc.edu)

Check their web sites (below):

<http://hydra.usc.edu/scehsc/default.asp>

and

http://www.usc.edu/schools/medicine/departments/preventive_medicine/divisions/occupational/occ_environmental/scehsc/

[back to top](#)

UC Environmental Health & Safety Program

<http://ehs.ucdavis.edu/ucih/>

-- Debbie Decker (dmdecker@ucdavis.edu)

Check their web site (above).

[back to top](#)

U.S. EPA Region IX / Indoor Environment Team

<http://www.epa.gov/iaq/>

-- Barbara Spark (spark.barbara@epamail.epa.gov)

-- Shelly Rosenblum (rosenblum.shelly@epa.gov)

-- Louise Hill (hill.louise@epa.gov)

Request for Application.

ORIA has posted the Request for Applications - Initial Announcement "Indoor Environments: Reducing Public Exposure to Indoor Pollutants." EPA seeks applications from eligible entities for projects to support demonstration, training, outreach and/or education agreements that reduce exposure to indoor air pollutants and yield measurable environmental results. The total estimated funding for this competitive opportunity is approximately \$3-4 million, and subject to availability of funds and the quality of applications received, EPA anticipates awarding 20-25 cooperative agreements. Whether or not a grant is sought, the RFA provides a detailed look at ORIA's goals, and how it is responding to new federal requirements with regard to measurable environmental outcomes.

This RFA usually is posted at three-year intervals. RFA posting:

http://www.epa.gov/air/grants_funding.html#indoor [Contact: Shelly

Blake (202) 343-9819]

Release of University of Michigan Study of Asthma Interventions

With support from ORIA's Indoor Environments Division, the University of Michigan School of Public Health (UMSPH) has conducted an extensive assessment of more than 350 asthma interventions across the nation, including many community-based initiatives. This landmark national study, the Asthma Health Outcomes Project (AHOP) determined the intervention program attributes and characteristics, including the nature of environmental risk reduction approaches, which contribute to improved asthma health outcomes. EPA anticipates the study findings will be used to guide federal, state and local programs to

improve the effectiveness of asthma programs across the nation. A detailed report on the findings is expected to be released in mid-November 2005; a fact sheet and other background information can be found at: <http://www.asthma.umich.edu/ahop.html>

Healthy School Environments Assessment Tool (SEAT)

Healthy SEAT is a powerful new free resource to help schools safeguard children's health and safety. The purpose of Healthy SEAT is to develop a comprehensive program that will make it easier (and, to the extent possible, less expensive) for school districts and schools to identify and address environmental health hazards and to much more easily and directly access and take advantage of the existing programs and tools developed for schools by EPA programs. The tool will allow schools to efficiently collect and analyze information on a wide range of environmental health and safety parameters for individual schools and identify which improvements can be done in the short-term and, for the future, prioritize those which need additional capital expenditures. The tool is scheduled for National release in mid-November and will be available for free download at <http://www.epa.gov/schools> Contact: Bill Jones

School Survey Results.

2002 IAQ Management Practices in Schools Survey Results - Prevalence and Implementation of IAQ Programs in US Schools has been accepted for publication, and published online in Environmental Health Perspective. The manuscript gives an overview and discusses the implications of the first national assessment of indoor air quality management practices and policies. Survey results indicate that 22% of schools in the US have IAQ practices that meet EPA guidelines. The manuscript can be accessed at <http://ehp.niehs.nih.gov/docs/2005/7881/abstract.html>

EPA Launches Indoor Air Quality Label for New Homes

The Indoor Environments Division has teamed with ENERGY STAR ® (Climate Protection Partnerships Division) to develop specifications for recognizing new homes equipped with a comprehensive set of Indoor Air Quality (IAQ) measures. Homes that comply with these specifications can be labeled as having the "Indoor Air Package," a complementary label to the ENERGY STAR for Homes label. Only ENERGY STAR qualified homes will be eligible for this additional EPA label. These specifications are being released as a pilot program in a limited number of markets identified by EPA to allow for a comprehensive evaluation of the pilot program and to make refinements to the specifications. Denver, Co is the first market to get off the ground, with four builder partners: Aspen Homes, McStain Neighborhoods, New Town Builders, and Wonderland Homes. For more information about the IAQ label pilot program or ENERGY STAR for Homes, go to: <http://www.energystar.gov/homes> then click "Indoor Air Specifications" in the What's New section

Program Needs for Indoor Environments Research (PNIER)

PNIER is a strategic document intended to capture the indoor environments research needs of all EPA offices with program responsibilities related to indoor environmental quality, and was developed with strong collaboration across several EPA offices. The needs are extensive and range from basic research on sources and emissions (including biological, chemical and

particulate matter), through exposure characterization, health effects and mitigation techniques. It is anticipated that PNIER will articulate EPA's indoor environments research needs, for both internal and external uses; identify where knowledge gaps exist; help establish a more well-defined indoor environments research presence at EPA; facilitate collaboration between EPA's program offices and research laboratories; and possibly serve as EPA's foundation towards a larger federal cross-agency research strategy on indoor environments research. <http://www.epa.gov/iaq/pubs/pnier.pdf>

What's New on the IED Web site.

New Indoor Environments Division publications are posted at <http://www.epa.gov/iaq/whatsnew.html>. Selected additions:

Remodeling Your Home: Have You Considered Indoor Air Quality? - Home Improvement with Energy Star guidance <http://www.epa.gov/iaq/homes/hip-front.html>

Implementing An Asthma Home Visit Program: 10 Steps To Help Health Plans Get Started -

As part of a comprehensive asthma management program, home visits can provide people with asthma an extra level of support and can contribute to the success and sustainability of a health plan's asthma disease management program. EPA's new guide, *Implementing An Asthma Home Visit Program: 10 Steps To Help Health Plans Get Started*, offers step-by-step instructions on how to start an asthma home visit program with a particular emphasis on environmental risk factor management. <http://www.epa.gov/asthma/publications.html>

6th Annual IAQ Tools for Schools National Symposium.

The next Symposium will take place January 12-14, 2006 in Washington, DC. Sessions address topics associated with implementing an IAQ program in a school setting, including communicating IAQ issues among stakeholders in the local community, designing, building, and maintaining healthy schools, school commissioning, mold and moisture, IAQ litigation, sustaining IAQ practices, materials selection and maintenance, asthma management, and more. Shelly Rosenblum will be a speaker. Web page <http://www.iaqsymposium.com/> (Contact: Shelly Rosenblum)

Federal Interagency Committee on Indoor Air Quality (CIAQ)

Minutes of past meetings and the agenda for upcoming meeting are posted at <http://www.epa.gov/iaq/ciaq/meetingschedule.html>

Region 9 Grants

The Region 9 Indoor Environments Team is awarding twelve grants (cooperative agreements) for work on "IAQ Tools for Schools," in-home education on environmental triggers for asthma, and "Open Airways for Asthma". Eight of these grants are going directly to California entities, and the ninth will benefit a California school district. Grants to support implementation of "IAQ Tools for Schools" are slated for the Los Angeles and San Francisco Unified School Districts, and the American Lung Association of San Diego. The Sacramento City School District will benefit from a grant for technical support to the University of Tulsa Indoor Air Program. Awards to in-school asthma education ("Open Airways for Schools") are going to American Lung Association affiliates in Santa Clara/San Benito and San Diego, as well as SFUSD. A single in-home asthma environmental education award is going to the Contra Costa Health Department. (Contact: Louise Hill)

New Listserve:

A Student/Teacher IAQ Activities Listserv was launched on February 9th. Shelly Rosenblum worked with the National Education Association (NEA) to create a yahoo group distribution list -- i.e. a listserv, for teachers who are interested in indoor air quality and would like to involve their students in the implementation of the Tools for Schools Program. The listserv would allow teachers and others to exchange information about lesson plans, activities, technical information, etc. Shelly has promoted the "Student-led TfS Model" and has developed special materials for that purpose. Contact: Shelly Rosenblum)

IAQ Tools for Schools (TfS)

- The San Francisco School Board had adopted a resolution to institutionalize IAQ Tools for Schools. This recent resolution (a previous resolution adopted an IAQ policy) came about thanks to efforts by the San Francisco Asthma Task Force. (Contact: Louise Hill)
- A 12-school TfS pilot project has been launched at Long Beach Unified School District (LBUSD), the third largest school district in California. This activity is based on a teachers' union/district administration collaborative model facilitated by NEA, brought to the district by the Teachers Association of Long Beach (TALB) and Barbara Spark, and now under the hands-on leadership of Deputy Superintendent Karen DeVries. Dr. Elisa Nicholas (Long Beach Alliance for Children with Asthma) is an active partner, and played an important role in encouraging program adoption. In September, Shelly Rosenblum provided a training workshop to fifty LBUSD TfS site team members, made of up principals, nurses, teachers (TALB), and site custodians. Pilot school sites were chosen based on high asthma rates. A high school science teacher will be utilizing TfS as a teaching tool. Bill Jones is EPA's local liaison. (Contact: Barbara Spark)
- Barbara Spark ran an EPA Tools for Schools (TFS) exhibit booth at the National Education Association (NEA) annual 9,000-member national Representative Assembly meeting in Los Angeles, July 1-3, 2005. In addition to providing outreach materials to hundreds of visitors, Barbara engaged in substantive discussions with well over 130 teacher leaders from forty-seven states. These included many teachers from California, encouraging them to contact our Indoor Environments Team for tailored guidance on teacher-led TFS implementation in their districts. (Contact: Barbara Spark)

Presentations

- Shelly Rosenblum participated on a panel at the annual conference of the Coalition for Adequate School Housing (CASH). The session, "Do School Facilities Affect Academic Outcome," attended by over 50 Architects, Engineers, Superintendants, Facilities Directors, Department of Education, etc., focused on indoor air quality, acoustics, lighting, and classroom and storage space.
- Shelly Rosenblum traveled to Sacramento and Fresno to conduct Tools for Schools training with the assistance of our grantee, the University of Tulsa. Sacramento City Public Schools (Sac-City) are just beginning to implement the program.
- Shelly Rosenblum gave a presentation to Visalia Unified School District classified staff (500 attendees including: maintenance, custodial, nursing, etc.) on building trust and credibility. Shelly's training raised awareness among the staff about sensitive messages,

the need to accurately pass on the district's messages to the community, and the need to work cooperatively and intelligently with the media.

- Barbara Spark was one of four invited speakers at the Assembly Select Committee on Air and Water Quality hearing regarding the California Air Resources Board (CARB) "Report To The Legislature on Indoor Air Pollution in California," on June 9, 2005. Barbara's comments focused on IAQ in schools, and the need for IAQ management plans consistent with EPA's "IAQ Tools for Schools" program. The Sacramento Bee article on the hearing devoted almost one-fourth of its space to the EPA comments.
- Barbara Spark gave a presentation on indoor air issues, EPA's IAQ program at the national and regional level, and possible IAQ roles for the air district, at the Public Health Committee of BAAQMD's Advisory Council on February 15, 2005.
- Barbara Spark gave a presentation on the science behind EPA's asthma policy, at a half-day "train-the-trainer" workshop in Los Angeles provided by EPA national partner, the American Respiratory Care Foundation.

[back to top](#)

U.S. Federal Interagency Committee on IAQ

-- Philip P. Jalbert (Jalbert.Philip@epamail.epa.gov)

<http://www.epa.gov/iaq/ciaq/>

Check their web site (above).

[back to top](#)

FUTURE MEETINGS

Upcoming meetings of the CIWG-IAQ are scheduled as follows:

- December 14, 2005
- March 8, 2006
- June 14, 2006
- September 13, 2006

[back to top](#)