

Indoor Air Quality in Northwest Schools

An electronic newsletter for school Indoor Air Quality (IAQ) exclusively for Northwest schools

A contact person should be assigned in all schools to ensure that all Indoor Air Quality issues are collected and addressed.

Training Opportunities

New Healthy School Environments web page to serve as gateway to online resources. Facility managers, school administrators, architects, design engineers, school nurses, parents, teachers, and staff can use the web page to address environmental health issues in schools. The site features indoor air quality, integrated pest management, energy efficiency, school design, environmental education, waste, water, and much more. It contains links to EPA's voluntary programs for schools. Users can browse by topic, or by geographic location. The site has many links to Region 10-based information, and suggestions are welcome.

Visit www.epa.gov/schools, and if you have comments or links that you think should be added, click on "contact us" on the website.

EPA is sponsoring **3 mold and moisture workshops** in the region, two in Seattle and one in Boise. See sidebar for registration information.



"Mold and Moisture in Buildings"

Workshop Thursday, November 14, 8:30 a.m.-12:30 p.m., the Mountaineers Building, Seattle

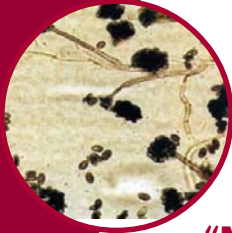
This workshop is for anyone who must deal with mold and moisture in buildings — including building managers and operators, school personnel, inspectors, contractors, consultants, risk managers, architects, and interested public.

Wednesday, November 13, 7:00-9:00 pm, Shoreline Conference Center, Shoreline

"Mold and Moisture in Homes: Prevention and Cleanup"

This free workshop is aimed at homeowners and renters.

The Idaho Indoor Environment Program and EPA Region 10 are sponsoring a **Mold Workshop on Tuesday November 19, from 8:30 a.m. – 4:30 p.m., Double Tree Riverside, Boise.** Topics for discussion include health effects, mold cleanup/removal, testing, and moisture in crawlspaces.



Welcome to our second quarterly newsletter

This issue includes updates on IAQ progress around the region and announcements of scheduled IAQ workshops. Next Spring, look forward to four Green Cleaning seminars geared specifically to schools to be held in Mount Vernon, Burien, Vancouver and Spokane. Cleaning is a key issue in school IAQ and we will provide state of the art guidance from the top experts in the country. More details will be provided in the Winter issue of this newsletter. Speaking of cleaning, you will find a "clip and save" sheet of tips for healthier air quality in the classroom. (Page 4) Please do send us comments or contribute articles. We want to develop this medium into a useful tool to share ideas and take advantage of the collective experience of our readers to help others.

INDOOR AIR QUALITY IN NORTHWEST SCHOOLS

Tools for Schools in Juneau School District (JSD) Schools

JSD received EPA's Tools for Schools Excellence Award.

During August of last year, Cathy Boutin received training in Washington, D.C. at an EPA sponsored Tools for Schools, Indoor Air Quality Symposium. Boutin later approached the District about implementing the program in Juneau. Four of the JSD schools agreed to participate in the Tools for Schools Indoor Air Quality Program Dzantik'I Heeni, Riverbend, Glacier Valley, and Auke Bay. Three school nurses — Cathy Cuenin, Kara Pape, Justine Muench — and Cathy Boutin launched the clean air initiative in December. Teachers, administrators and staff members at the four schools filled out checklists detailing the conditions of the areas in which they work. Training was held for the Tools for Schools building leaders, team members, and District maintenance staff by American Lung Association in cooperation with the Washington State University (WSU) Cooperative Extension Energy Program. David Hales from the WSU Energy Program and District employees walked through the four buildings to look at indicators of good quality air and ways to improve the school's indoor air. Hales wrote a report shortly after. The building leaders took the report and made an indoor air quality plan for each building. In February, the building team leaders met with their indoor air quality teams and placed a call to Kathy Borghi at Allergy and Asthma Network, Mothers of Asthmatics, and Brenda Doroski from EPA in Washington, D.C. to review the plans and talk about the process.

The efforts of Cathy Cuenin, Kara Pape, Justine Muench, and Cathy Boutin were recognized at a ceremony in August at the Third National Tools for Schools Symposium, Washington, D.C. Boutin accepted the prestigious Excellence Award—the highest Tools for Schools honor—on behalf of the District. The award will be rotated through the four buildings and then placed at the District schools which show outstanding effort in maintaining high standards of clean indoor air.

The new school year brought new challenges. New staffs were hired, so those people are being trained in the indoor air quality plans. Two partners also continue their interest in the work — Allergy and Asthma Network Mothers of Asthmatics and the American Lung Association - Anchorage.

IAQ News from Idaho Schools

The Idaho Indoor Environment Program/Division of Health and the WSU Energy Program provided evaluations in another 29 Idaho schools during the 2001-2002 school year, bringing the total to 74 schools in the past four years. Comments received from school districts continue to be positive as we assist them in being proactive. This year, we plan to conduct at least 24 walk-throughs in three other school districts. For more information, contact Kara Stevens, Manager, Idaho Indoor Environment Program at 1-800-445-8647 or stevensk@idhw.state.id.us.

Idaho Schools' success stories:

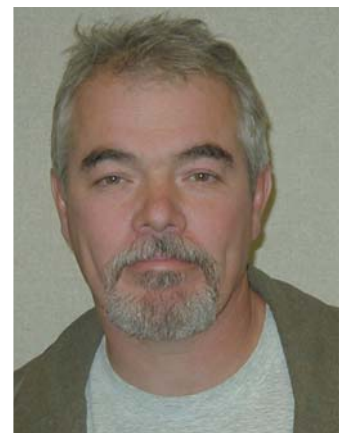
Mike Clark, Idaho Falls School District

Dear Ms Kara Stevens - In February 2002, when you and David Hales (WSU Energy Program) performed walkthroughs in our schools, it was well worth our time and we certainly appreciated your visiting our district. I received valuable hands-on training about indoor air quality. I now have an on-going testing program in our schools to help identify potentially dangerous air quality problems. I would recommend that other districts in the state take advantage of this program.

*Again, thanks for your help.
Sincerely, Michael Clark
Environmental Specialist*

Brian Martin, Coeur d'Alene School District

When we were first approached about letting people come into our buildings for indoor air quality walkthroughs I thought it was a bad idea and could lead to some big problems. Boy was I wrong. The program was the best thing we ever did. It helped us in four ways. First, we can point to our voluntary and very proactive efforts in case any litigation over IAQ comes along, second our occupants trust that we're doing our best and we aren't hiding anything from them because they saw the "experts" from the WSU Energy Program and were able to ask them questions and share any concerns they had, third the school district took



Brian Martin

immediate action to correct the deficiencies we discovered as soon as possible, so our occupants saw that we were responding to the outcomes of the assessments; and our occupants are now better informed on IAQ. This means they aren't going to over-react to media hype. Finally, because of this great experience, I'm now taking the classes to become a Certified Building Operator. I highly recommend the program to all schools . . . it doesn't cause problems, it prevents problems! If they want to talk with me, just have them call. 208-664-8945

Oregon – Tips for Teachers

Tom Wykes of the Oregon State University Extension conducted school IAQ walkthrough assessments for Portland Public Schools. Late last spring, Wykes visited 25 Portland schools (over 1,300 classrooms), and coordinated two TFS workshops last month. The 1 _ hour workshops were attended by school safety committee members and facility managers. Wykes explained three primary causes for ventilation deficiencies: 1) the ventilation system is turned off (operations staff needs more training), 2) classrooms with unit ventilators either had the unit turned off, or it was covered with books, etc.; 3) all the portable classrooms as a group are generally under-ventilated. Portland Public Schools is purchasing IAQ equipment and is committed to addressing the ventilation issues documented in Wykes' walkthroughs. Lindarose Allaway will be working with the safety committees in Oregon schools this year to provide presentations to staff on asthma and allergy issues in schools. Contact Lindarose at 503-255-5553.

Washington Schools Progress

A couple of two-day workshops (Tacoma and Spokane) were conducted for health districts in Washington in early October. The workshops focused on general school indoor air, with an emphasis on conducting walkthroughs in schools. Hands-on equipment use and field trips to schools were the highlight of these events. Instructors included Tim Hardin, School IAQ Manager for the Washington State Department of Health; Eric Dickson, ESD 101; and Rich Prill, WSU Energy Program. **Additional workshops are available on an as-needed basis – contact Rich Prill, WSU Energy Program to request a workshop in your area, 509-477-6701 or email prillr@energy.wsu.edu.**

The *New Second Edition K-12 Health & Safety Guide* is now available. It includes a new section on HVAC Preventative Maintenance and an expanded section on IAQ. The Guide was carefully reviewed, and is an essential resource for school management and operation. Visit <http://www.k12.wa.us/facilities>

An excellent resource just got better.

Washington State's K-12 Health & Safety Guide now includes a new section on HVAC Preventative Maintenance, and the Indoor Air Quality section is expanded. The Guide was updated by a team of experts from across the state. To view or download this state-of-the-art document visit: <http://www.k12.wa.us/facilities/> and click on the K-12 Safety Guide

Idaho Asthma Summit an important step to develop a state asthma program

The Idaho Asthma Prevention and Control Project, Division of Health, Idaho Department of Health and Welfare and the Asthma Coalition of Idaho co-sponsored the first Idaho Asthma Summit, September 23-24 in Boise, Idaho. There were approximately 125 in attendance, representing various professions including school nurses, physicians, public health, respiratory therapists, federal and state agencies, and pharmacists.

The goals of the Summit were to develop recommendations for a comprehensive statewide plan to address asthma in Idaho, build and strengthen partnerships for an effective, inter-disciplinary approach to asthma management, and promote the health and wellness of those with asthma. Nationally recognized speakers discussed such topics as strategies to reduce environmental factors that impact asthma; asthma and health care; asthma education, management, and prevention programs in schools and childcare settings; and community involvement and public policy. During the school presentation, Rich Prill, WSU Energy Program, discussed findings from 156 IAQ walkthroughs conducted in both Idaho and Washington schools. Following each presentation, attendees met in groups to prioritize issues that were identified last spring in the seven health district asthma forums. Priority areas will be used to develop a statewide asthma plan. An update on the status of the plan will be summarized in the next school newsletter. For more information, contact Jean Woodward, Asthma Prevention and Control Project, at 334-5544.

INDOOR AIR QUALITY IN NORTHWEST SCHOOLS

Clip and circulate: Tips toward healthier air quality in the classroom

Introductory note: Depending on the available resources and flexibility of your school district, some of these items may be difficult or impossible to achieve. However, these guidelines will provide a target toward which your classroom can head over time.

- Educate yourself on Indoor Air Quality and Asthma & Allergy triggers.
- Try to maintain cleanable horizontal surfaces.
- If your room has carpet:
 - Don't allow food or beverages,
 - Check to make sure the custodial staff use high efficiency vacuums to capture particles,
 - Help the custodians by having students put chairs on desks at the end of the day,
 - Check with custodial staff to ensure that carpet is cleaned appropriately (hot water/steam "extraction" is the best).
 - No strong chemicals or soaps
 - Carpet dried thoroughly within 24 hours after cleaning
- Carpet cleaned at least quarterly
- Wet-wipe dusty surfaces weekly- - pick up on Friday, so janitor can dust
- (don't use a feather duster).
- Avoid clutter... put loose items and piles into plastic boxes that can be wet-wiped.
- Avoid hanging items that collect dust: streamers, projects, papers, piñatas, etc.
- Pets should be visitors, not permanent residents.
- Remove fleecy items that can harbor allergy triggers...old overstuffed furniture, area and throw rugs, pillows, blankets or stuffed animals that can't be properly and regularly cleaned.
- Avoid use of "stinky" dry-erase board markers and cleaners.
- Avoid use of spray adhesives, contact cement, and volatile paints. Use non-toxic water based materials whenever possible.
- Avoid bringing chemicals, paints, or sprays from home without clearing them with the maintenance staff.
- Avoid use of room deodorizing sprays or plug-ins.
- Absolutely do not use ozone machines in occupied areas.
- Inventory your supplies and materials in terms of indoor air quality:

Consider:

- Are they low-odor?
- Can they create dust or other particles?
- Do they harbor allergens?
- Report water leaks, water stains, damp materials, or "musty" or "moldy" smells immediately.
- Don't allow stained ceiling tiles to remain – they can harbor mold, and it's hard to tell if or when they get wet again.
- Communicate with the facility staff regarding the mechanical systems for your classroom. Keep your room comfortable – learn how to operate your heating/cooling system for comfort and energy efficiency.
- Help ensure that your students are getting adequate fresh air ventilation.
 - Do not block air supply or exit grills,
 - Do not turn off ventilators – work with maintenance staff to fix noisy units, control temperatures, control drafts,
 - In with the fresh, out with the stale: if your classroom doesn't have mechanical ventilation then at least open windows and/or doors frequently to provide a quick "flush-out" of the stale air,
 - Request a ventilation system that supplies the state code minimum of 15 cubic feet per minute per person outside air at all times the school is occupied.
- Monitor your windows, they should not show condensation — except on the very coldest of days – condensation suggests either a moisture problem or not enough ventilation (or both!).
- Notify maintenance of odors or particle matter from other zones in the building: shops, science, laminator, locker room, graphics, custodial, storage areas, combustion equipment, kitchen, buses at the curb, etc. - - Air should move from "clean areas to dirty areas".
- Install walk-off mats that provide "four good footsteps" at all outside entry doors.
- Hallways should be hard-surface, not carpet.
- Make sure there is an Indoor Air Quality person assigned that ALL IAQ (moisture, odor, mold, etc.) issues are directed to.
- Make sure ALL teachers and staff knows who the IAQ person is.

More information about Indoor Air Quality is available on the Internet:

U.S. Environmental Protection Agency

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

Washington State Department of Health

<http://www.doh.wa.gov/>

Office of Superintendent of Public Instruction

<http://www.k12.wa.us/>

Northwest Air Pollution Authority

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

**Washington State Cooperative Extension
Energy Program**

<http://www.energy.wsu.edu>

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