



# **The Virtual School Walkthrough Webinar: Identifying and Solving Common IAQ Problems**

Friday, December 9, 2011

1:00 – 2:30 PM EST



# Objectives

- Gain insight on how to prevent and solve potential IAQ issues in your school buildings.
- Learn about the power of effective communication when responding to reports and concerns.
- Discover tools and resources to help conduct a thorough and effective walkthrough investigation.
- Identify how walkthroughs help advance an effective framework for IAQ in schools.



# Introductions

## Facilitator:

- Jennifer Lemon Indoor Environments Division, U.S. Environmental Protection Agency

## Speakers:

- David Blake, Environmental Specialist/Indoor Air/Asbestos, Northwest Clean Air Agency
- Richard Prill, Building Science and Indoor Air Quality Specialist, Washington State University

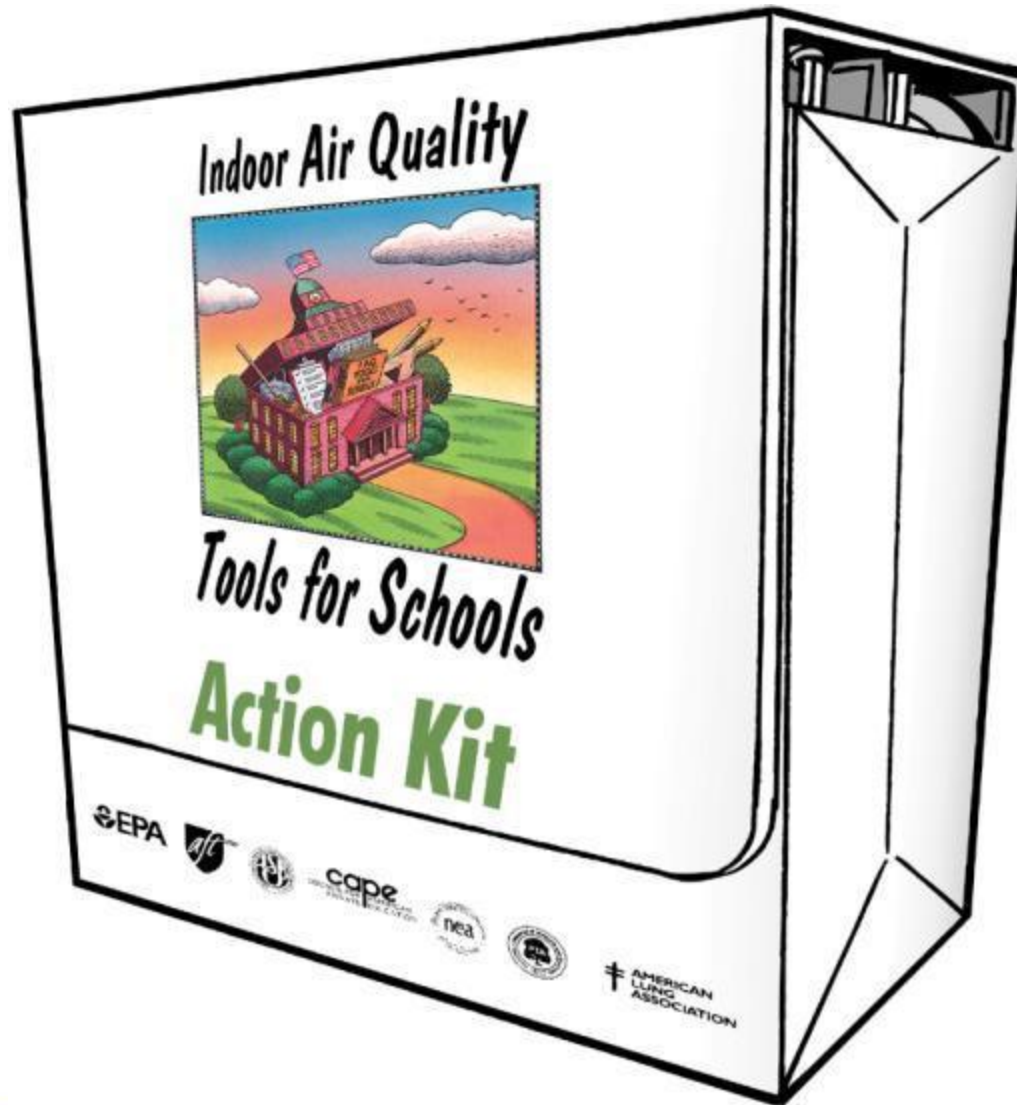


# Today's Webinar Presentation and Materials

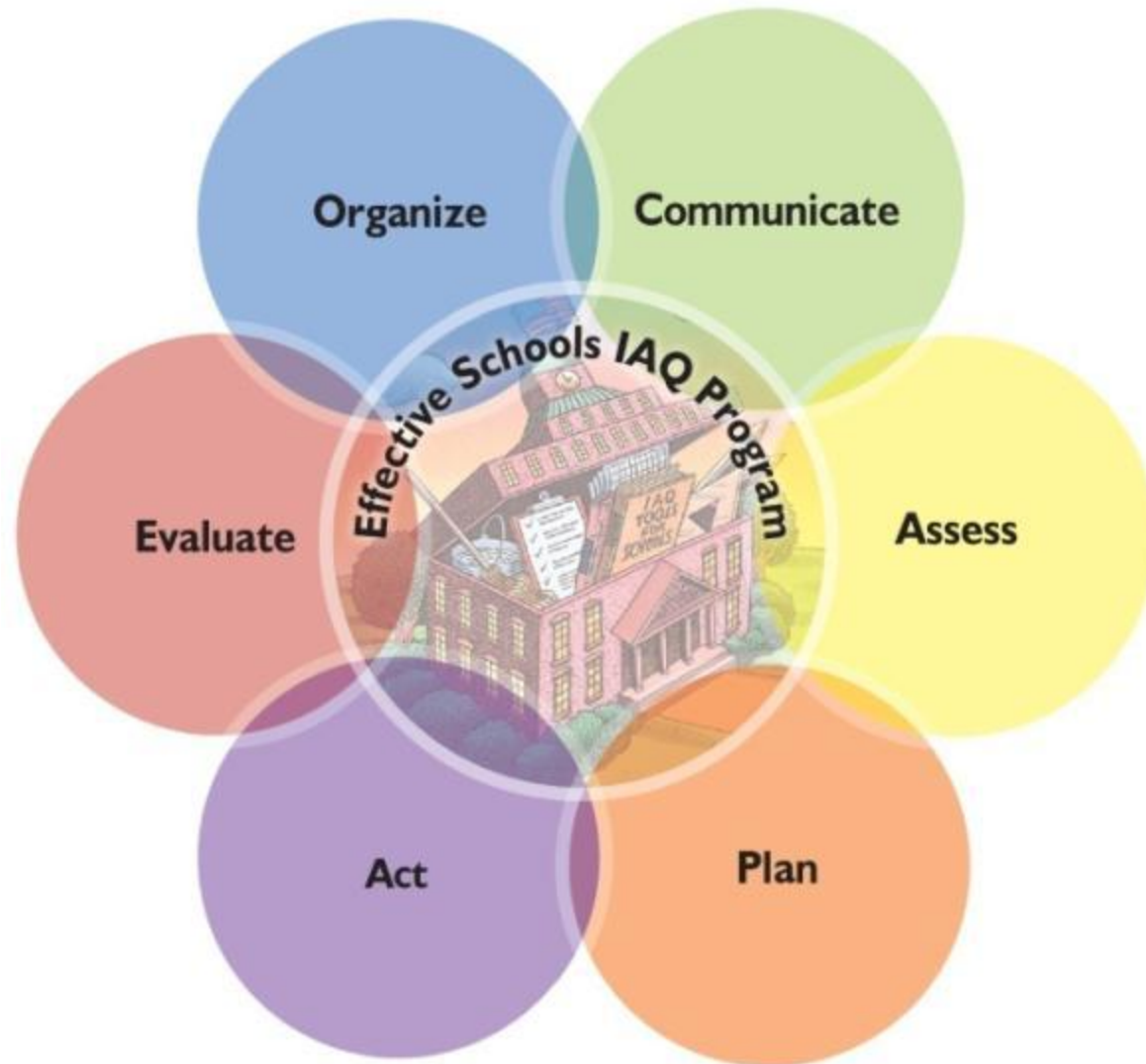
- Virtual Walkthrough resources and a Questions and Answers document will be available to you soon on the *IAQ Tools for Schools* website.
  - [www.epa.gov/iaq/schools/webconferences.html](http://www.epa.gov/iaq/schools/webconferences.html)
- An online Virtual Walkthrough presentation is also available on the Northwest Clean Air Agency website.
  - <http://www.nwcleanair.org/aqPrograms/indoorAir.htm>



# IAQ Tools for Schools Guidance



# The Framework for Effective School IAQ Management



# The Framework for Effective School IAQ Management: Six Key Drivers

## ORGANIZE

- Develop Systematic Approach
- Identify Existing Assets
- Design SOPs
- Empower an IAQ Leader
- Build an Effective Team
- Create Champions
- Secure Senior Buy-In

Organize

## COMMUNICATE

- Share Your Goals
- Make IAQ Meaningful
- Be Transparent & Inclusive
- Communicate Results (ROI)

Communicate

## EVALUATE

- Solicit Feedback
- Capture ROI

Evaluate

## ASSESS

- Walk the Grounds
- Listen to Occupants
- Use Technology
- Determine a Baseline
- Keep Customers Satisfied
- Identify and Prevent Risks

Assess

## ACT

- Educate Staff About IAQ to Change Behavior
- Train Occupants to Address IAQ Risks
- Address the Source of Problems

Act

## PLAN

- Prioritize Actions
- Put Goals in Writing
- Start Small
- Work in Stages
- Plan for the Future

Plan

## ACTION KIT

- HVAC
- Moisture/Mold
- IPM
- Cleaning & Maintenance
- Materials Selection
- Source Control



# The Framework for Effective School IAQ Management: **Six Technical Solutions**





# The Framework for Effective School IAQ Management: Six Technical Solutions

## Quality HVAC

- Inspect HVAC systems regularly
- Establish a maintenance plan
- Change filters regularly and ensure condensate pans are draining
- Provide outdoor air ventilation according to ASHRAE Standard or local code
- Clean air supply diffusers, return registers, and outside air intakes
- Keep unit ventilators clear of books, papers, and other items

## Control of Moisture/Mold

- Conduct routine moisture inspections
- Establish mold prevention and remediation plan
- Maintain indoor humidity levels between 30% and 60%
- Address moisture problems promptly
- Dry wet areas within 24-48 hours

## Strong Integrated Pest Management (IPM)

- Inspect and monitor for pests
- Establish an IPM plan
- Use spot treatments and baits
- Communicate with occupants prior to pesticide use
- Mark indoor and outdoor areas treated with pesticides



## Effective Cleaning & Maintenance

- Conduct routine inspections of school environment
- Develop a preventative maintenance plan
- Train cleaning/maintenance staff on protocols
- Ensure material safety data sheets (MSDS) are available to staff
- Clean and remove dust with damp cloth
- Vacuum using high-efficiency filters

## Smart Materials Selection

- Maintain products inventory
- Develop low-emitting products purchasing and use policies
- Use only formaldehyde-free materials
- Use only low-toxicity and low-emitting paint
- Select products based on product rating systems
- Use least toxic cleaners possible (only those approved by the district)

## Aggressive Source Control

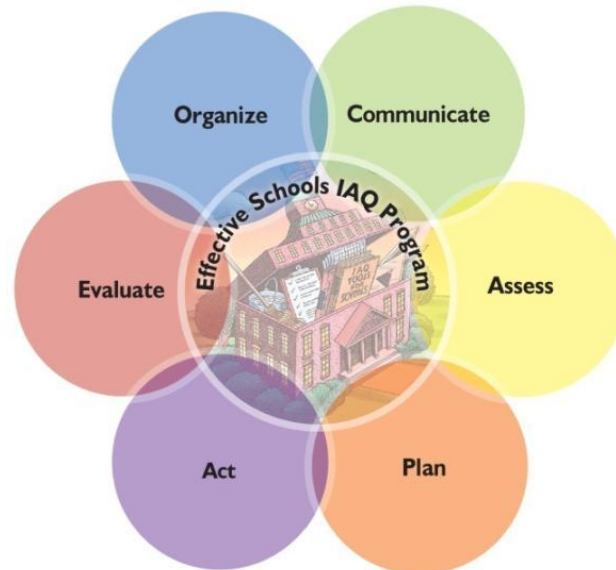
- Conduct regular building walkthrough inspections
- Test for radon; mitigate if necessary
- Implement a hazardous materials plan (use, label, storage and disposal)
- Establish a school chemical management and inventory plan
- Implement Smoke-Free policies
- Establish an anti-idling school bus policy
- Use walk-off mats at building entrances
- Conduct pollutant-releasing activities when school is unoccupied

# School IAQ Walk-Throughs

## *Walk-the-Talk: Putting IAQ Info into Action*

### Speakers:

- David Blake, Northwest Clean Air Agency
- Richard Prill, Washington State University



# *IAQ Tools for Schools* Resources -- What's new!

- The *IAQ Tools for Schools* revised website is here!
  - The revised site includes interactive elements and the latest resources to help schools create healthy indoor environments.
  - Access an interactive *IAQ Tools for Schools* Action Kit:  
<http://www.epa.gov/iaq/schools/actionkit.html>
  - And other information tailored to the role you play in your school's community, and multimedia resources such as videos and podcasts: <http://www.epa.gov/iaq/schools/>



# *IAQ Tools for Schools* Resources

- *IAQ Tools for Schools* Connector E-Newsletters and E-mails:
  - Send an e-mail to: [IAQTfSConnector@cadmusgroup.com](mailto:IAQTfSConnector@cadmusgroup.com)
  - View archives at: <http://www.epa.gov/iaq/schools/bulletins.html>
- Schools IAQ Connector E-Discussion List:
  - Send a blank e-mail message to [schools\\_iaq\\_connector\\_subscribe@lists.epa.gov](mailto:schools_iaq_connector_subscribe@lists.epa.gov). Then, check your e-mail inbox for your confirmation and membership details.
- *IAQ Tools for Schools* Webinar Resources
  - <http://www.epa.gov/iaq/schools/webconferences.html>



# Virtual Walkthrough Resources

- Northwest Clean Air Agency's Indoor Air Quality Program and Virtual Walkthrough DVD
  - <http://www.nwcleanair.org/airPrograms/indoorAir.htm>
- Washington State University Energy Program
  - Indoor Air Quality:  
<http://www.energy.wsu.edu/PublicFacilitiesSupport/IndoorAirQuality.aspx>
- Building Air Quality: A Guide for Building Owners and Facility Managers
  - <http://www.epa.gov/iaq/largebldgs/baqtoc.html>
- Indoor Air Quality Building Education and Assessment Model (I-BEAM)
  - <http://www.epa.gov/iaq/largebldgs/i-beam/index.html>



# Contact Information for Webinar

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