Houses That Work for Existing Homes: Remodeling for Indoor Air Quality

This workshop will teach participants essential information about Indoor Air Quality as it applies to single-family residences. Millions of American homes will be retrofitted in the coming years to improve their energy efficiency, make them more "green" or add features their owners want. Integrated healthy home and energy-efficiency retrofit activities can simultaneously lower utility costs and improve indoor air quality. Participants will learn the basics about the full range of potential pollutants and their impact on occupants. They will also learn the four important strategies for controlling and improving indoor air quality. They will gain practical strategies they can use to help their clients make better decisions. Participants will be equipped to avoid potential risks and identify new opportunities for marketing their services. The information presented in this session will build on the basics of building science covered in the popular EEBA full day Houses That Work session. Participants for this Indoor Air Quality session are encouraged to attend a HTW I session before taking this workshop. An important element of the workshop will be to introduce the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades to provide practical guidance on improving or maintaining indoor air quality and indoor environments during home energy upgrades, retrofits or remodeling.

Who Should Attend

- The workshop is targeted to at least the following groups:
- General contractors who focus their business on the residential remodeling sector
- Specific trade contractors such as HVAC, framers and insulation contractors
- Building supply and manufacturers representatives
- Utility and housing program officials who promote weatherization programs
- Designers and architects
- Energy Raters

Relevance to Attendees

- Identify how Indoor Air Quality is related to building science and high performance homes
- Relate the potential impact of contaminants on the building and the occupants
- Apply cost-effective strategies to pollutant sources
- Describe the four essential strategies for controlling indoor air quality
- Demonstrate energy savings and return on investment to customers

Agenda

Session Segment	Activity Plan	Timing
Introduction to EEBA and its Sponsors • The relationship between EEBA, DOE, ENERGY STAR, EPA • Relevance of the "Houses that Work" Program • EEBA publications and education • Introduction of speaker and sponsors	Facilitator has sponsors and participants introduce themselves and asks participants what prompted their interest in today's session.	15 Minutes
Indoor Air Quality Fundamentals • Overview of current market opportunities • Indoor pollution levels and asthma rates • Define good indoor air quality	Short Lecture: Facilitator outlines fundamentals of IAQ	20 Minutes
Contaminants A discussion of indoor air pollutants, what they are, where they come from & their relevance • Categorizing of pollutants – biological vs. chemical, outdoor vs. indoor, those associated with buildings and building materials vs. occupant based. • A simple review of the current research and understanding of potential health effects and the impact on occupants. • The roles and responsibilities contractors have in providing healthy indoor air.	Short Lecture: Facilitator outlines pollutants sources Small Group Exercise: Participants work together to categorize IAQ pollutants and the contractor's role in managing them	25 Minutes
HVAC Equipment Developing priorities and strategies for mechanical system selection • Duct systems • Filtration options	Question and Answer: Facilitator shows a series of slides demonstrating system types, controls and efficiency guidelines. Participants are asked for their feedback on their experience.	25 Minutes
Combustion Safety A discussion of the potential safety and health issues related to HVAC system replacement including • Combustion safety risks • Equipment choices • Depressurization testing	Short Lecture: Facilitator reviews risk assessment factors Small Group Exercise: Participants work together to develop strategies on the major risk factors	25 Minutes
Ventilation Developing priorities and strategies to control moisture and pollutants • Fresh air ventilation • Ventilation rates & strategies	Question and Answer: Facilitator shows a series of slides demonstrating ventilation strategies. Participants are asked for their feedback on their experience with these strategies.	25 Minutes

Remodeling Projects – Case Studies • Case studies • IAQ strategies • Features, advantages and benefits of Indoor Air Quality	Short Lecture: Facilitator reviews case study scenarios Small Group Exercises: Participants work together to develop IAQ strategies based on specific remodeling projects	40 Minutes
Summary and End of Workshop	Question and Answer: Facilitator asks participants: - new things they have seen that will be easy to implement - things that will take more time to implement	10 Minutes

Training Time and CEUs/Professional Development Credits

3.5 Hours of Educational and Training Time

This Seminar qualifies for CEUs/Professional Development Credits from the following accreditation organizations:

Pricing

The hosting fee for this seminar is $6500

The registration fee for this seminar is $65 (online registration) or $70 (on-site registration)*

* The registration fee includes lunch when two half-day sessions are combined for a full day.

Reading Material and Online Resources

The reading material for the course consists of documents, publications and online resources relating to each educational and training seminar. You are welcome to order, view or print the resources if you choose. You can find them by following the links below to the EEBA, Department of Energy and EPA/IAQ websites.

Link / Purchase / Download
Climate Specific Builders Guides
Builder's Guide to Cold Climates
Builder's Guide to Hot-Dry / Mixed-Dry Climates
Builder's Guide to Hot-Humid Climates
Builder's Guide to Mixed-Humid Climates
Online bookstore with EEBA Publications, issue-specific guides, software and tools
Software Resources
Building Better Homes DVD
Online Resources
National Residential Efficiency Measures Database
DOE Building Technologies Program
Building Energy Optimization Software
EEBA National Education Partner Resources & Information
Indoor AirPlus Program