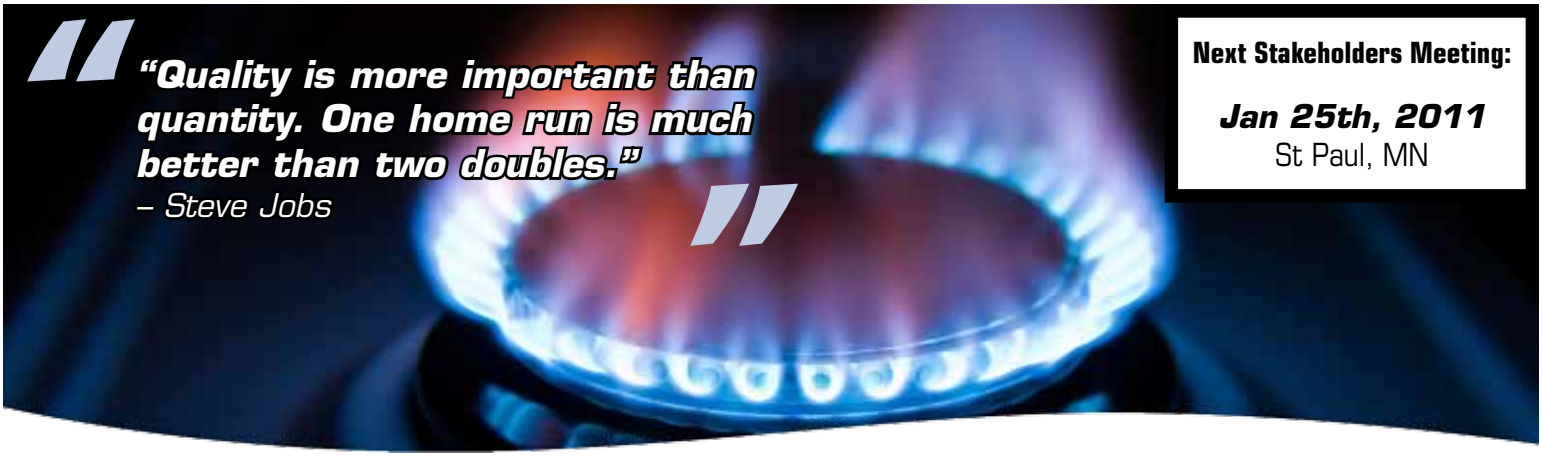
MINNESOTA MDH DEPARTMENT OF HEALTH

Rn NEWS

Volume Eight
October 2011



21st National Radon Training Conference

October 16-19, 2011
Orlando, FL

This years conference will be exciting for the MDH radon program. MDH staff will have multiple training sessions to teach other state radon programs, radon contractors and waterproofing contractors on how MDH continues to have a spectacular program and how some of our elements can be incorporated into theirs.

Radon 101 – How radon enters buildings and how mitigation works
This class will be targeted to the waterproofing professionals so that they have a general understanding of what radon is, how it gets in, how basement waterproofing effects radon levels and how to fix elevated radon levels when they are found.

Low Income Partnerships - Not leaving radon behind
Creating and sustaining partnerships with Organizations that go into low income homes to make them more energy efficient or reduce the exposure to lead. These Organizations are already in the home and have the ability to save lives for low cost.

Building Technical Capacity – Getting Bang for the Buck Part One - discussing State's role fixing houses (bad investment) vs. training contractors advanced diagnostics and having them gain the experience and confidence to solve difficult houses on their own (better investment).

Building Technical Capacity – Getting Bang for the Buck Part Two - Highlighting "Best Practices for Radon Measurement in Minnesota Schools and Commercial Buildings" and our experiences with schools.

Building Technical Capacity – Getting Bang for the Buck Part Three - The Gold Standard, what we've learned, what can be done elsewhere and "establishing measurable Objectives, Outputs and Outcomes."

Building Technical Capacity – Getting Bang for the Buck Part Four - The Minnesota Quarterly Radon Stakeholder Meetings provide individuals and organizations with an interest in radon an opportunity to:

- Learn about the latest radon related activities going on throughout the state
- Network with other radon stakeholders to develop collaborative partnerships

Center Stage

Winter Hazard Awareness Week

November 7-11, 2011

To help Minnesota residents minimize risks and mitigate the hazards of winter, the Minnesota Department of Public Safety — in collaboration with the National Weather Service and other state, federal and non-profit agencies — sponsors "Winter Hazard Awareness Week" each fall to educate, inform, remind and reinforce the behaviors that lead to a warm, safe and enjoyable winter season.

The event includes a media campaign, literature and other informational materials. The week-long educational campaign targets specific information each day that can be used in conjunction with school, church, or civic programs.

Monday: Winter Weather Overview
Tuesday: Outdoor Winter Safety
Wednesday: Winter Fire Safety
Thursday: Indoor Winter Safety
Friday: Winter Driving

Receive Email Updates

To ensure that you or your organization continues to receive the latest information about Winter Hazard Awareness Week, and other weather awareness programs and events, please send an email to: dps.weatherawareness@state.mn.us with the word "Subscribe" in the subject line. You can include as many other email addresses as you wish in the CC: field, as well, who will also receive the notifications.

For any questions or comments about this service please contact us at: dps.weatherawareness@state.mn.us.

Protect Your Home from Radon

• Radon is a naturally occurring radioactive gas produced by the decay of uranium and radium in the soil. Radon has no color, taste or odor.

• Radon can enter your home from the surrounding soil and accumulate in living areas, especially during the winter months, when homes are sealed and insulated against the cold.

- Radon typically accumulates in basements and other areas that are in direct contact with the soil.
- Exposure to radon over an extended period of time may increase your long-term risk of developing lung cancer. Radon is the second-leading cause of lung cancer deaths nationwide. The U.S. Environmental Protection Agency (EPA) has estimated that 21,000 people a year die of lung cancer caused by radon.
- Radon levels are measured in picocuries per liter of air (pCi/L). If radon levels in your home exceed the EPA action level of 4.0 pCi/L, the Minnesota Department of Health (MDH) recommends steps be taken to reduce your radon exposure.
- Testing done in Minnesota suggests that roughly one out of every three homes may exceed the EPA guideline for radon. MDH has officially recommended that all homes in the state be tested for radon.

Preventing Asbestos Exposure in the Home

• As the winter months arrive and people begin spending more time indoors, indoor air quality assumes increasing importance as a potential health concern. One health hazard associated with indoor air quality is the release of asbestos fibers during home renovation or remodeling activity.

- Asbestos is a naturally occurring mineral that easily breaks down into microscopic fibers. It has been used in literally thousands of different building materials and consumer products. Prior to the mid-1980s, asbestos-containing material (ACM) was widely used for home construction and remodeling. According to the federal Bureau of the Census, raw asbestos and ACM are still being imported into the U.S.
- When ACM is disturbed during remodeling or other activity, tiny fibers can be released to the surrounding air. If they are inhaled, they can become trapped in lung tissue. Asbestos can cause asbestosis, lung cancer and another form of cancer called mesothelioma, which affects the lining around the lung; it can take up to 30 years for these diseases to develop.
- There is no known "safe" level of asbestos exposure, so it's important to protect yourself and your family during any demolition or remodeling activities in your home.

Protect Your Family from Carbon Monoxide Poisoning

The 2006 Minnesota legislative session passed a carbon monoxide law requiring carbon monoxide (CO) alarms in homes built after January 1, 2007. All existing, single-family homes were required to have CO alarms by August 1, 2008, and multi-family housing by August 1, 2009. To find out more about this law, go to the Minnesota Fire Marshal website at dps.mn.gov/divisions/sfm. Select "Public Education" from the orange menu bar and click "Fire Safety."

- CO is a gas you can't see, taste or smell. CO is released when fuels like natural gas, oil, wood, kerosene or charcoal don't have enough oxygen to burn efficiently. This poisonous gas can escape into a home, car or garage and kill people.
- CO can accumulate inside the home from a variety of sources, including furnaces and water heaters, gas or kerosene space heaters, gas boilers, gas ranges and ovens, gas dryers, charcoal or gas grills, fireplaces and wood stoves, vehicles, and yard equipment with gasoline-powered engines
- Exposure to low levels of CO can cause flu-like symptoms – nausea, dizziness, drowsiness, weakness, intense headaches and shortness of breath. Higher levels can result in unconsciousness or death.
- People most vulnerable to the effects of CO include pregnant women, the elderly, small children, people with lung problems or other chronic health conditions, and people engaging in strenuous physical activity.
- CO is most likely to accumulate during the winter months, when a heating system is in use and the home has been sealed and insulated against the cold.

Preventing Lead Poisoning In The Home

• As the winter months arrive, and people begin s pending more time indoors, indoor air quality becomes a health concern. One health hazard associated with indoor air quality is the potential for lead poisoning in children and adults during renovation and remodeling activities.

• Common sources of lead in homes or buildings built before 1978 include lead contaminated dust and lead-based paint. Other sources of lead in homes are soil, food, water and folk medicines or remedies.

- Remodeling activities may generate large amounts of lead dust that may be distributed throughout a home by the HVAC system or by foot traffic.
- Lead poisoning generally affects the central nervous system, leading to learning and behavioral disorders, and it can also damage the kidneys and reproductive organs.
- There is no known "safe" level of lead exposure, so it's important to protect yourself and your family during any renovation or remodeling activities in your home.

Preventing Mold in Your Home

• Molds are simple, microscopic fungi found everywhere in indoor and outdoor environments. They spread and multiply by releasing tiny living cells called spores into the air.

• In order to grow, mold needs a source of nutrition (such as dust, wood products or paper), a place to grow, and a source of moisture. Your home may be at risk if you have had flooding, a backed-up sewer, a leaky roof, ice dams, high indoor humidity and condensation problems, a damp basement or ongoing plumbing leaks. Uncontrolled mold growth can cause health problems, damages to goods and furnishings, and structural problems in your home.

- The most common symptoms of exposure to mold include nasal and sinus congestion, eye and throat irritation, breathing difficulty, and other respiratory problems. If enough mold spores are in the air inside your home, they can contribute to asthma, allergies and other health problems.
- All molds should be treated the same with respect to potential health risks and removal.
- It is difficult to determine who may experience health effects associated with mold exposure, but mold exposure poses an increased risk of adverse health effects among children, the elderly, individuals with allergies and asthma, and individuals with immune suppression such as HIV infection, chemotherapy, or organ transplant. Consult a medical professional if you are having health problems you believe are related to mold.

If you missed our last stakeholders meeting you really missed some good presentations. Below are some highlights from a presentation given by Shawn Price, from Air Chek. His presentation was very informative and helpful in understanding what is required for every contractor to have in their Quality Assurance/Quality Control Plan. Even more was his explanation on how kits work, how the laboratory analyzing the kits have to try and interpret what the contractor is conveying to them with the kit information and things that can go wrong along the way.

What is activated charcoal?

- Begins with charring coconut shell (charcoal source)
- Activated by treating with oxygen
- Increases total surface area
- Open millions of tiny pores
- Unimaginable amount of pore space

How much surface area?

1 gram of charcoal ~ 1200 m2 of surface area (~ 4.5 tennis courts!)

How activate charcoal works

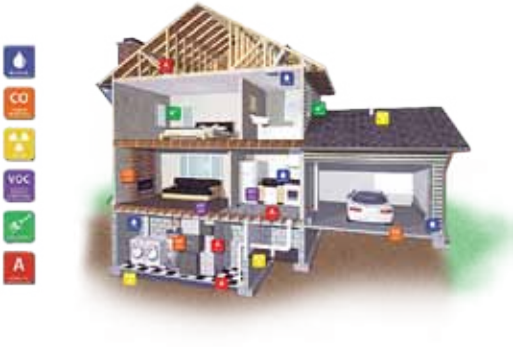
- Dried charcoal has almost no "impurities"
- When exposed to room air, gases diffuse into the charcoal granules
- Diffusion is essentially the gases seeking an equilibrium
- Molecular forces hold onto the adsorbed gases
- Decreased concentration can cause outgassing

How activated charcoal radon test kits work

- Room air diffuses into the charcoal granules
- Water, radon, etc. enter the pores, where the particles come to rest and are held in place by forces like Van der Waal forces.
- Typically the radon has plenty of pore spaces available in the outer layer of the charcoal bed, meaning that the charcoal in the bottom of the bed can be radon-free

What can Interfere?

- Water vapor gets in the way
- Water weight correction can be very reliable in correcting the water vapors effect on the charcoal
- Similar uptake rate for ~ 24 hours
- Water ultimately wins the battle
- Air currents can cause an over-response
- VOCs can compete for pore space
- Chemical odors, cigarette smoke, paint fumes, etc.
- Storage conditions



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800-798-9050 or 651-201-4601

TTY: 651-201-5797

www.health.state.mn.us/radon