News of Interest for and from the Connecticut Association of Home Inspectors, Inc.

CAHI MONTHLY NEWS

September 2012 Volume 4, Issue 9

President's Corner

Fall is here! The summer went by so fast! It seems that the market has picked up some. Hopefully it will carry through the coming winter. I hope everyone is catching up on business.

As you probably already know from the emails and postcards you have received that we are celebrating our 20th year as an organization at our meeting on Wednesday, October 24th. We will have our educational meeting from 4pm to 6pm and will start the festivities immediately after. Dave Hetzel, the founder of CAHI will be flying in from California for the event. Woody Dawson has arranged for many state dignitaries to join us. There will be food and entertainment for all. CAHI 20th Anniversary pins will be issued to all who attend. It promises to be a grand celebration.

Over the past twenty years, CAHI has grown to become the largest home inspection organization in the Northeast. Please come and celebrate this achievement. If you cannot make the educational portion, please come to the celebration.

Your board has worked hard to get us exposure as the premier inspection organization in CT. Local newspapers have been alerted and invited to cover the event. Channel 8 News may even be attendance. We will continue to publicize CAHI, and to educate our members in an effort to make us bigger, better and smarter as the real estate market in CT improves.

Scott Monforte

INSIDE THIS ISSUE

Meeting Dates

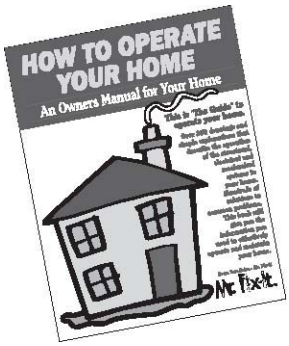
Oct 24	Foundation Repair 4-6PM 20th Anniversary Celebration 6-9PM

Regular Meeting Location: (otherwise noted)

Holiday Inn

201 Washington Ave.

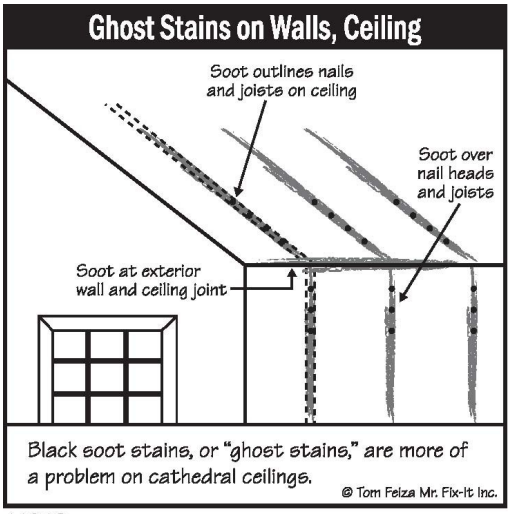
North Haven, CT. (203) 239-6700



Home Tips

Tom Feiza's Tips For Operating Your Home

Mr. Fix-It™



M048

In recent years, I have investigated numerous com-plaints of black or gray stains in homes. These may be geometrically shaped stains that outline exterior wall framing, dots at drywall fasteners, or dirt stain-ing carpeting along outside walls. The stains may create a ghost-like outline of the framing (the skele-ton) of the home. Black particles may also occur on television screens, appli-ances and countertops. I have even investigated a home in which stains appeared on walls, white carpeting under doors and a pure white miniature poodle.

Why does staining occur in our homes? What has changed to cause these problems?

Dark stains or "ghost stains" are difficult to investi-gate. We need to determine the source of the dark material and its relation-ship to the pattern of staining. Usually we discover two problems: soot production and delivery of the soot to the surface. The location and shape of the stain can give us a few clues. And don't worry—the stains usually are not mold.

Mold?

First, let's discuss the mold question. With the scary media coverage of mold, any black, green or gold mark is a suspected mold growth, but most dark ghost stains, carpet stains or deposits on plastic surfaces are caused by soot or carbon, not mold.

It is possible that some dark stains in the home are related to condensation or moisture on surfaces that may result

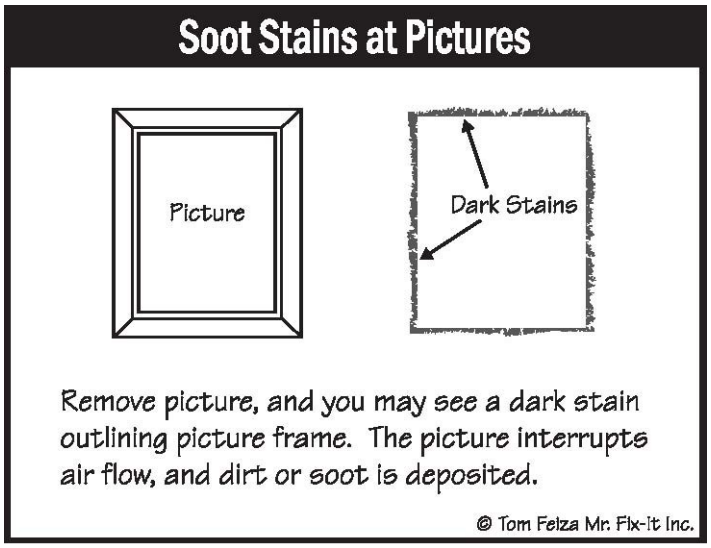
in mold or mildew. However, unless the home shows signs of moisture damage, it is not likely that stains within the living space are mold-related. Mold and mildew stains are possible on damp basement walls and wet windows, but mold and mildew typically do not appear as ghost stains on drywall, carpeting or appliances.

Most experts believe you can test a dark stain for mold with a bleach-and-water solution. When blot-ted with a 50 percent solution of laundry bleach and water, a mold stain should quickly disappear or lighten dramatically. If the stain consists of soot or carbon particles, it will smear and remain dark when wiped with the solution.

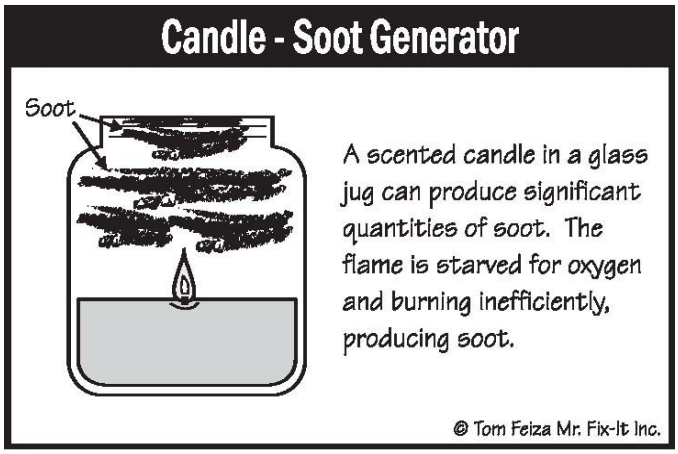
To treat mold, we need to eliminate the moisture, clean the surface, and attempt to remove any food source—paper, cellulose, dirt or dust. You can find good references for mold concerns at websites for the EPA, the Building Science Corporation, and the states of Minnesota and Wisconsin. Most of these technical resources recommend solving the moisture problem and cleaning the surface, so don't go crazy with mold concerns.

Ghost stains? Soot stains

The dark stains that outline wood framing or drywall fastener heads are often called ghost stains because they appear as ghostly images of the fram-ing or fasteners. Ghost stains may also appear on room or stairway carpeting, on plastic, around pic-tures or below doors.



M046



M049

Most ghost stains are related to soot or small black particles that deposit on surfaces through several mechanisms. They are difficult to remove because they consist of very fine dirt particles or an oily and/or carbon-based deposit from incomplete combustion.

Are stains more common today?

Years ago, when homes were heated with a fire and lit with oil lamps or candles, soot was just accepted. A common chore was cleaning the soot from clear glass lamp mantels. Today we maintain very clean homes with many white surfaces, and even a small dark stain is easy to identify.

Our homes are tighter and leak less air. This is great for comfort and energy efficiency, but a tighter home allows less air exchange with the outdoors to dilute dirt and soot in the air of the home.

We also have forced-air heating systems and numer-ous fans and combustion devices that move air in the home. If systems aren't perfectly installed—and they are never perfect—air flow will move particles and deposit stains in remote locations. Many homes can suck air and particles from the outside and through carpeting, doors or even walls. The carpet becomes a filter that traps dirt and soot.

We love our electronics and plastic. Electronic devices can create a charge that attracts particles. Plastics may have an electrostatic charge that also attracts particles. Many electronic devices move air through their framework

for cooling—again, moving and depositing particles.

Finally, today we are pickier homeowners. We expect our homes to be clean and to stay clean. We don't accept stains in our homes.

Where do the dark particles come from?

There are many possible sources inside and outside your home. The exact source can be difficult to identify, and often you must work from the most obvious to the remote possibilities. Common source of particles are:

Candles—the big offender. Candles that are scented or in jugs often create more soot than standard candles because of in-complete com-bustion. Candles with long, untrimmed wicks can also produce more soot.

Oil lamps—these create the same problems as candles. Just look at the glass mantle. Burning incense belongs in this group, too.

Combustion appliances—any device that burns solid fuel, oil or gas is a potential source. Incomplete combustion creates par-ticles. Appliances that are not vented properly can deposit products of combustion and particles in a home; a wood-burning fireplace is an obvious source.

Gas fireplaces—that nice, lazy yellow flame looks good but can also produce particles. If the com-bustion were more com-plete, the flame would be closer to a solid blue color, not a soft yellow.

Gas pilot lights—poor adjustment can produce soot. A pilot light that strikes or "impinges" on a surface may also produce incomplete combus-tion and soot.
Smoking—a possible cause in excessive cases, but often these smoke particles are tan or yellow until they pick up common dirt.

Internal combustion engines—cars, lawnmow-ers, diesel engines. If your home has poor air balance, these particles can be sucked indoors from the attached garage or from outside.

Construction-related dirt and dust—drywall-sand-ing dust or concrete-cutting dust are two sources.

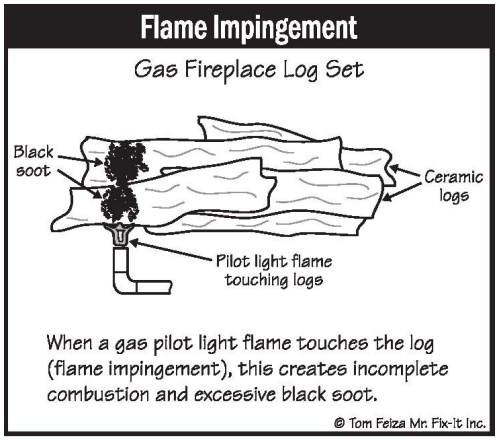
Deteriorating carpet, drapes and cloth can pro-duce sooty stains.

Dirt—from soil, pets, kids and animals.

Cooking—what have you burned lately? Does your kitchen fan really exhaust cooking odors and smoke to the outdoors or just recirculate it inside your home?

Dust-producing activities—these include wood-working, furniture refinishing, welding, cutting metal with flame, and grinding.

A vacuum cleaner—if your vacuum has a poor filtering and capture system, it may spread dirt and soot in your home.

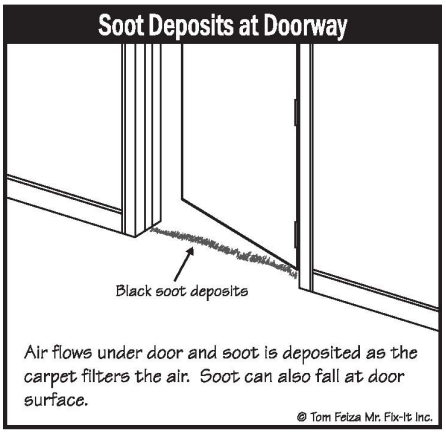


MO47

Why the ghost-like deposits?

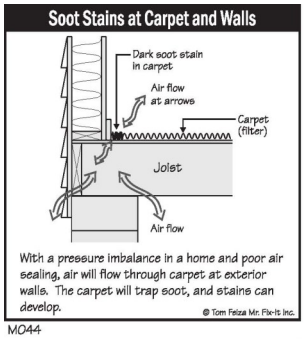
Soot and carbon particles are very small and light. They move easily and can remain suspended in the air for many hours. These particles will also be distributed by your forced-air heating or cooling sys-tem and most vacuum cleaners.

Several scientific principles describe the action of particles depositing on surfaces.
Changes in air flow When air changes direc-tion, particles can drop out of the air. Where air flows beneath doors, for exam-ple, the particles drop into the carpet.
Filtration When air moves through carpeting, the carpet acts as a filter and traps dirt particles. In a home that has an improp-erly operating forced-air system, you may see filtration stains at the exterior baseboard where air is being sucked into the home. You may see stains on carpeted stairs since air is sucked through the stairs into the return of the air handler in the basement. **Surface temperature changes** Air has a cer-tain amount of energy that varies with tempera-ture. At a higher tem-

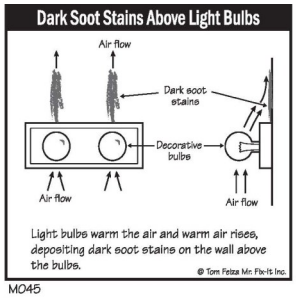


MO43

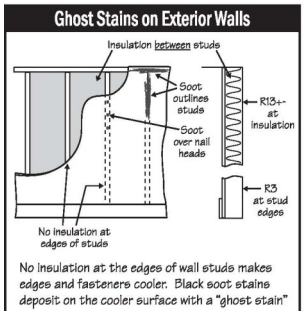
perature, particles in the air move quickly; at a lower temperature, particle movement slows. When air that contains soot particles moves across a cooler surface, the soot particles slow and can be deposited on the cooler surface. This action is what causes the ghost stains that outline framing and drywall fas-teners; there is less insula-tion at the wood studs, so the surface is cooler, and the soot deposits on the cooler surface.

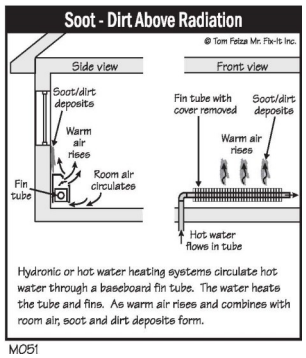


M044

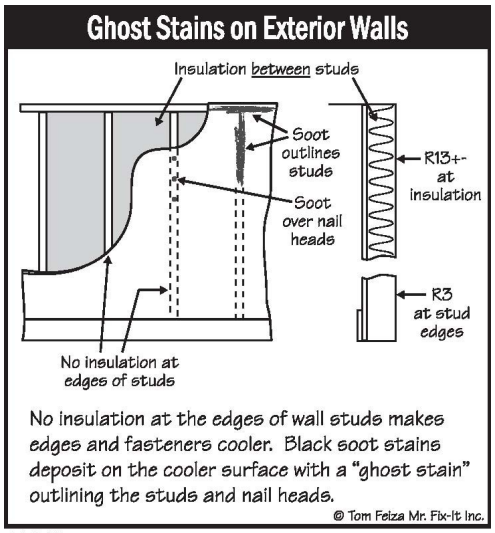


M045





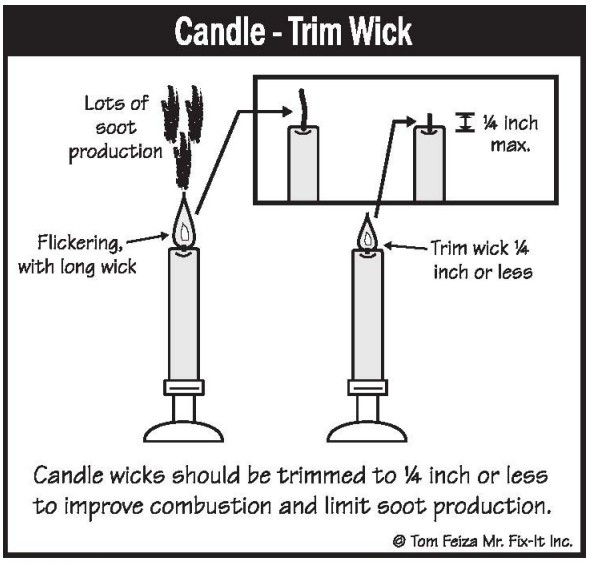
M051



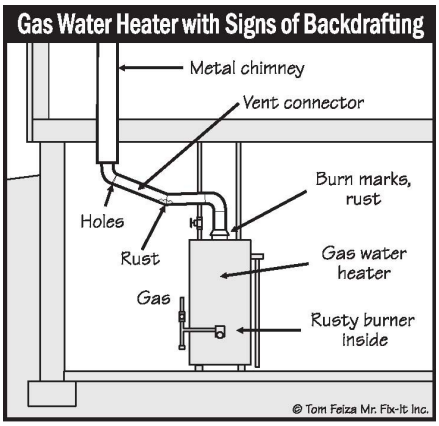
M042

• **Increased air flow** Warmer air rises, and forced-air systems push, pull and move air. The air flow can cause visible deposits on and above heating grills, above radiation equipment, and above light bulbs adjacent to walls. Some of the deposits are also caused by the convective flow of dirty air in the room.

• **Electrostatic charge** Electronic air filters and smoke filters use electrostatic charges to filter air. The same electronic-charge principles attract particles to the TV screen, some plastics, elec-tronic equipment and appliances. Movement of air through the ductwork in your home can also charge particles in the air and make them stick to surfaces.



M050



W006

• **Gravity** Eventually, particles and debris will drop out of the air. They often create deposits on flat surfaces such as counter-tops.

What can a homeowner do?

Start by understanding the sources of soot and dirt particles. Consider the process that may be deposit-ing the soot on surfaces in your home. Then elimi-nate the obvious sources and watch for future stains. Be particularly wary of scented candles, can-dles in jugs, oil lamps and gas fireplaces. If you must use candles, use high quality candles and burn them in an open area – not in a partially closed container. Keep the candlewick trimmed to 1/4 inch or less

for better combustion and a cleaner burn with less soot. Have all your combustion appliances serviced by professionals on a routine basis—a good practice with or without soot problems. Specifically ask the contractor to check the combustion gas venting and test for back drafting of combustion gas. When back drafting occurs, signs of it may be visible at vent connections. If the contractor can't knowledge-ably discuss venting, air balance and back drafting, look for a contractor with more experience.

Unfortunately, there are few resources and a limited number of experienced consultants who understand the soot and ghost stain problem. If your home has a particularly bad problem, with strange deposits outlining walls or strange patterns in carpeting, it's probably due to an air imbalance in your home com-bined with a soot production problem. This type of air flow problem could be investigated by a consult-ant who specializes in home performance and has training in measuring air flow and pressure differen-tials. Your home should be evaluated as a compli-cated set of interrelated systems moving air and creating differential pressures. It appears that most ghosting problems are not directly related to construction. Problems are often related to increased production of soot, more light-colored surfaces in our homes, and higher expecta-tions of homeowners. Increased use of candles cer-tainly has had a big impact on increasing the soot and ghosting stain problem. Written by

Tom Feiza

Mr. Fix-It™

See Tom's book The book is available at How To Operate Your Home www.amazon.com or through Tom at: (ISBN 0-9674759-3-7) www.howtooperateyourhome.com for great information or www.htoyh.com on "operating" a home.

Ductless Heating and Cooling

(Based on information presented at the September membership meeting)

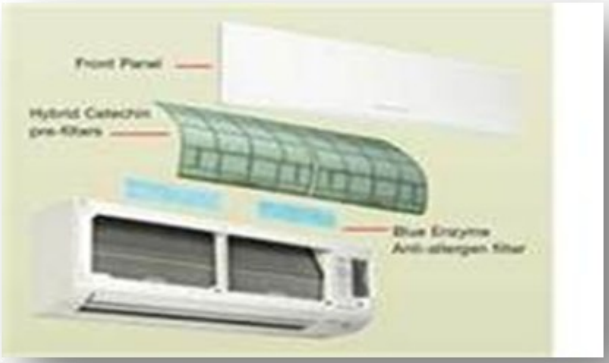
Have you ever been asked by a client for your advice on how to heat or cool a particular area of a home that may not be conditioned currently. You look around and you think to yourself, how the heck can you extend the current heating or AC system to this area. Ductless HVAC may be the answer.

Most people, myself included, think of a ductless unit in the AC capacity only, with limited applications at best. However, modern units offer heat pump capability that can heat and cool, and that are very efficient to boot.

These systems offer true zone heating and cooling. They supply conditioned air directly to the area that needs it, as opposed to full split systems that push %100 percent air capacity through ductwork even though only a part of a home is calling for heat or cooling.

The system is very much like a conventional split central air system. There is a condensing unit outside. It is Mitsubishi's recommendation to mount the unit off the ground to allow for condensate drainage and minimize freeze up of the condensate in the unit itself. A line set connects the coil to the air handler inside.

The air handler is mounted in the space to be conditioned. It consists of the cooling coil and the fan unit. It is easily serviceable from inside.



The main player in the industry is Mitsubishi, which holds 40% of the market place in the US. They offer mini split and multi split comfort systems with inverter-driven compressor technology. These systems are ENERGY STAR rated up to 26 SEER delivering exceptional heating performance

The innovative variable-speed INVERTER-driven technology consists of sophisticated electronic control systems that detect any change in room or zone temperature and automatically adjusts the speed of the outdoor units compressor and expansion valve for precise capacity control.

The systems can be configured where the condensing unit can handle multiple air handlers.

Hand held wireless remote is standard for wall-mounted and floor mounted indoor units.

GE Recalls Front Load Washers Due to Injury Hazard

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission, in cooperation with the firm named below, today announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately unless otherwise instructed. It is illegal to resell or attempt to resell a recalled consumer product.

Name of Product: GE Profile™ Front Load Washers

Units: About 62,000

Importer: GE Appliances, of Louisville, Ky.

Hazard: The washer's basket can separate during use and break the washer's top panel, posing an injury hazard to consumers.

Incidents/Injuries: GE has received 19 reports of washer baskets separating, including 10 reports of top panel breakage. No injuries have been reported.

Description: This recall involves GE Profile™ frontload washing machines with model numbers beginning with WPDH8800, WPDH8900 and WPDH8910. All serial numbers with these models are included in this recall. The washers were sold in gold, red and white colors. The model number is located on the washer's right side near the bottom and behind the door near the door frame visible when the door is opened.

Brand	Model Number Begins With:	And Serial Number Begins With:
GE Profile™	WPDH8800	All serial numbers with these models are included.
	WPDH8900	
	WPDH8910	

Sold at: Best Buy, Lowe's, Sears, The Home Depot and other department and retail stores nationwide, from July 2008 to August 2011 for between $1,199 and $1,599.

Manufactured in: China

Remedy: Consumers should immediately stop using the recalled washers and contact GE for a free repair.

Consumer Contact: For additional information, contact GE Appliances at (888) 641-9739 between 8 a.m. and 5 p.m. ET Monday through Friday or visit the firm's website at www.geappliances.com/products/recall

Kitchen Fires #1 in New Report; Smoke Alarms and Escape Plans Key to Surviving Fires in the Home

WASHINGTON, D.C. - In recognition of Fire Prevention Week, the U.S. Consumer Product Safety Commission (CPSC) and the U.S. Fire Administration (USFA) are providing new statistics on fires in American homes and urging consumers to install smoke alarms in their homes and check to make sure all smoke alarms are working properly. It is also vitally important to develop and practice a family fire escape plan.

In a report released today, CPSC estimates there were an average of 366,700 unintentional residential fires, 2,310 deaths, 12,550 injuries and more than $7 billion in property damage each year attended by fire service between 2008 and 2010.

The top cause of fires in the home is cooking equipment, accounting for an estimated 147,400 or 40 percent of residential fires each year between 2008 and 2010. Cooking was also associated with the largest percentage of fire-related injuries, an estimated average 27.4 percent or 3,450, in the home.

Home heating and cooling equipment, including portable space heaters, was a top cause of fire deaths, accounting for about nine percent or 210 deaths on average, in homes each year between 2008 and 2010. Portable heaters were associated with 100 of those deaths each year.

"Six people die every day in home fires," said CPSC Chairman Inez Tenenbaum. "The early warning provided by smoke alarms can make a big difference. Consumers who have working smoke alarms in their homes die in fires at about half the rate of those who do not have alarms."

"Every second counts when there is a fire in your home," said U.S. Fire Administrator Ernie Mitchell. "It is easy to believe that when the smoke alarm sounds, you and your family will be able to escape. A home fire drill can prepare you and others to escape a real life emergency in your home."

CPSC and USFA recommend that every family have a working smoke alarm in their home. To provide better warning of a fire and more escape time, install more than one alarm and interconnect all smoke alarms in the home. Interconnected alarms speak to one another so if there is a fire in one part of the house, the interconnected alarms sound throughout the house and alert consumers to the fire more quickly.

For the best protection, CPSC and USFA recommend installing alarms on every level of the home, outside sleeping areas and inside each bedroom. Install both ionization and photoelectric alarms and make sure alarms are interconnected throughout the home. Alarms that are powered by house wiring should have battery backup.

According to the National Fire Protection Association, the death rate per 100 reported fires was 49% less in homes with working smoke alarms than in homes without this protection. In addition to using alarms, never leave cooking items unattended and have a professional inspect heating and cooling equipment every year, including fireplaces and chimneys. Be extra careful with cigarettes and other smoking materials. Keep matches and lighters out of the reach of children.

According to USFA, the fire death rate dropped by 20 percent over the 10-year time period 2000 through 2009 on a per capita basis for a variety of reasons. CPSC and USFA are working to further reduce fires and fire deaths through education and standards work. CPSC staff is working with other federal agencies on new smoke alarm technology to improve effectiveness and reduce nuisance alarms. CPSC is also developing rulemaking aimed at reducing upholstered furniture fires.

Contact CAHI c/o

Scott Monforte

39 Baker St.

Milford, CT. 06461

Email: info@ctinspectors.com

Web: www.ctinspectors.com

Articles published in CAHI Monthly are the sole opinion of the author. CAHI does not endorse or state a position for or against the content of said articles.

CAHI Executive Board		CAHI Presidents	CT Home Inspection Licensing Board	
President	**Scott Monforte**, Milford 203-877-4774	Bernie Caliendo	William Stanley, Chairman	Inspector
Vice President	**Woody Dawson**, Cheshire 203-272-2400	Robert Dattilo	Rich Kobylenski	Inspector
Treasurer	**Dan Kristiansen,** Shelton 203-257-0912	Woody Dawson	Larry Willette	Inspector
Secretary	**James Enowitch**, Cromwell 860-989-0068	Michael DeLugan	Bruce Schaefer	Inspector
Director	**William Kievit**, Farmington 860-919-4960	David Hetzel	David Sherwood	Inspector
Director	**Ken Mita, Sr.** , Wallingford 203-269-0341	Richard Kobylenski	Eric Curtis	Public Member
Director	**Stanley Bajerski**, Milford 203-257-1694	Scott Monforte	James J. O'Neill	Public Member
Director		Joseph Pelliccio	Daniel Scott	Public Member
Director		Pete Petrino		
Committee Member		Dwight Uffer		
Committee Member		They have served as our primary leaders and in other capacities since 1992. Please thank them for their service when you have a chance.		

The Licensing Board meetings are held at 9:30 am

Dept of Consumer Protection

165 Capitol Avenue. Hartford

The public is always welcome.

Published by: JBDR & Associates, LLC

jbderosa@jbdr-associates.com

http://www.jbdr-associates.com