

# **Attic Insulation Shield Alert!**

### Fire hazards caused by attic insulation

News of a house fire in the neighbourhood is a very bad thing, especially where there is loss of life or injury. Finding out that you installed the heating equipment that is now being blamed for causing the fire is much, much worse.

Earlier this year, news started circulating that a few WETT members were finding themselves in this very difficult position. We have been led to believe these fires were due to improper installation of attic insulation during recent home efficiency upgrades. In an overzealous effort to seal up every possible leak within the home, inexperienced installers and homeowners may have placed insulating materials right up against manufactured 2100 degree chimneys, or blown in loose-fill insulating materials beyond the top of an attic insulation shield.

Regardless of what caused a fire, the original equipment installer is often named in lawsuits when the homeowner and insurance companies attempt to recover damages. And it can be difficult if not impossible to prove innocence if there is no remaining evidence to substantiate your side of the story. If negligence can be proven, those found at fault could face severe financial repercussions. Such cases could also have a dramatic impact on rates for liability insurance and errors & omissions insurance for all WETT contractors due to escalating pay-outs on damage claims coming forward. Two actions that immediately spring to mind to help combat this problem: 1. From here on in, protect yourself and your reputation by clearly documenting your work on every installation you do with photographs. This is easier than ever with today's digital cameras. Be sure to take good pictures of your finished work that clearly shows all key points including:

- The attic insulation shield
- Fire-stops from above and below
- Elbow off-sets
- Roof penetration from above and below
- Termination
- Ceiling support
- Pipe clearances
- Appliance placement clearly showing clearances to nearby combustibles (sometimes these get moved after you leave!)
- Floor protection
- Shielding (if applicable)

2. Even better, use this issue as a good reason to re-connect with your old customers. When is the last time you called to check in on them? They would probably really appreciate your follow-up call. Ask if they have had any recent attic insulation improvements. If they have, inform them of your concern and ask them to check and verify clearances as per the chimney manufacturer's instructions. You might also use this customer service opportunity to remind the homeowner about the requirements for an annual chimney inspection and to address any questions they might have regarding routine maintenance and cleaning.

## Size Does Matter

An article on central heating with wood

Complaints are common from homeowners who are dissatisfied with the performance of their central wood furnace or boiler. While some of these issues are due to what they are burning and how they are burning it, other problems may be more closely related to the furnace itself. Simply put, they may have the wrong equipment for the job.

According to Dennis Klan, Technical Service Manager at Valley Comfort, the problem often starts with improper unit selection – going with a unit that is just not suitable for the job. "If the wood heating appliance is oversized, the call-forheat is satisfied much too quickly. The furnace does not get a chance to burn hot. Instead, the damper closes off, producing a smoldering fire that generates too much smoke and results in excess creosote. This smoke is wasted wood energy that is being lost up the chimney. On the other hand, if the unit is undersized, the call-for-heat is sometimes never satisfied during colder weather. While the unit runs much cleaner, it cannot bring the home up to a comfortable temperature." Aside from shorter burn times, the homeowner with the small furnace will get very cranky. It doesn't matter how many times he refills the firebox; the house is still too cold!

Dennis says the first step to ensure proper selection is to always begin with an accurate heat-loss calculation for the structure involved. It may be that a wood stove would make a better, simpler, and much more affordable option. And further when it comes to changing out an existing furnace, avoid the temptation to base the size of the new one on the old one because it is likely oversized for the application too. Dominique Page at PSG agrees 100% with Dennis.

### "If we want to do it right, we have to start with a good heat-loss analysis. Seems like a no-brainer, but this step is often skipped."

Dominique also points out installers should be looking to match up the heat-loss number with the AVERAGE OUTPUT BTU (sometimes referred to as NOMINAL CAPACITY OUTPUT or STEADY-STATE OUPUT). "Do not get distracted by input BTU's or maximum output BTU's. The average output value is far more important because it considers output over the entire burn cycle. Matching these numbers up as close as possible will give you the better result."

Once the right appliance has been selected, careful thought must also be given to proper system design and installation. A furnace or boiler will only be as good as the heat distribution system it is connected to. The same goes for the chimney system, and controls. Short cuts must be avoided and installation instructions ought to be followed closely. Failure to do so will surely result in operational problems that the homeowner or user will expect you to correct.

Even if you do everything right, there could still be problems if the homeowner does not use the appliance as intended. On that front, B365 section 3.4.3 requires the installer to spend a little time with the user to ensure they know how to operate the equipment correctly and safely. Ross Merchant at Kerr Energy Systems emphasizes, "This is the time to show them how to build a small hot fire, to review controls, and to walk them through the manual. Often the equipment gets blamed when the real cause is just a simple missed step during installation or set-up. Incorrect operation is a problem too. It's all there in the manual, but folks often do not take time to read it." Ross also reinforces the importance of burning only quality firewood that is properly seasoned. "Trying to burn damp wood is just a waste of time and effort. People who do this just don't realize how much extra work they are causing themselves."

In conclusion, it is often said that heating with wood is more of an art than a science. This is because there are just so many variables that can come into play. As the "wood heating professionals," consumers are looking to us for guidance and expertise. In order to offer these things, we must first arm ourselves with the right level of knowledge and skill. For more information on this topic, we encourage you to read Chapter 10 - "Central Heating Systems" within the WETT Manual. For those members who want to become an expert in this field, we also offer a Central Heating Course. Please visit our website for a detailed description of content, and to check upcoming course dates for your region.

## **About Good Firewood**

Based on information provided by the Wood Heating Organization

Properly seasoned firewood lights easily and is a pleasure to burn. Trying to burn wet firewood causes nothing but problems. Some of the symptoms include:

- Difficulty in establishing a fire
- Difficulty in maintaining a fire
- Smouldering fire with little flame
- Excess soot and creosote on glass
- Rapid creosote build-up in chimney
- Low heat output
- Short burn time
- High fuel consumption
- Excessive smoke emissions from chimney
- And increased odour of smoke within home

Many of these problems could easily be eliminated by burning properly seasoned firewood. Here are five simple guidelines to help towards improving firewood quality:

#### 1. Cut the wood to length

Firewood length should be matched to your particular appliance. Always keep in mind that shorter pieces are much easier to handle. This is why many experts agree that the ideal firewood length for wood stoves is 35 to 40 cm (14 to 16 in) long.

#### 2. Split it before stacking

Rounds of firewood will not dry properly until split. While ends may appear dry, water is still trapped inside and cannot escape until the bark and inner growth rings are opened. Larger pieces of firewood should also be split into smaller sizes. Bigger pieces tend to smoulder for extended periods when placed on the fire, whereas small pieces ignite quickly. Small pieces also come in handy for making a small, hot fire that is better suited for heating during mild weather. To ensure a good variety, split chunks of firewood into sizes ranging from 7.5 cm (3 inches) to 15 cm (6 inches) wide measured at the largest cross-sectional dimension.

#### 3. Stack it up early and let it dry

Once wood is cut and split, it must be stacked in an open location where the sun & wind can work its magic. This will allow moisture to gradually evaporate. Loose, single-row stacks no more than four-feet high usually work best. Be sure to keep firewood up off the ground. This will prevent further saturation from ground water, prevent rot, and limit mould growth. Rails or pallets can be used for this purpose.

#### 4. Leave it alone for at least six months

Seasoning is a slow process. To ensure firewood is ready to burn, at least six months of drying time is required. In most parts of Canada, wood that is cut, split, and stacked in the spring can be dry enough to move into the woodshed for winter heating by late October. Keep in mind dense hardwoods like Oak and Maple require much more time to season properly. For this reason, experienced wood-burners process their firewood at least a year ahead. This point is also important for seasoning any tree species in damp, coastal climates. Also, do not make the common mistake of assuming firewood cut from a standing dead tree is ready to burn. A dead tree is not necessarily a dry tree. This wood may still require seasoning.

#### 5. Move firewood under cover in late fall

Once the seasoning process is complete, be sure to protect your investment by keeping it dry. Prior to the onset of winter, move your supply of seasoned firewood into the woodshed. Any dry, well-ventilated outdoor location will work fine as long as it is covered with a good roof.

#### How to tell if wood is dry enough

Firewood with moisture content between 15% and 20% is considered acceptable. How can you tell if it is ready without a moisture meter? Here are a few things to look for:

### 1. Multiple checks or cracks in the end grain can be a good indication of dryness.

2. Bang pieces together. Dry wood will make a hollow "clinking" sound. Wet wood will make a dull "thud."

#### 3. Dry wood weighs much less than wet wood.

4. Split a piece of wood. If the exposed surface still feels damp, the wood is too wet to burn.

Want to read more articles on firewood quality and other topics related to heating with wood? There is a wealth of knowledge & experience available to you online through the Wood Heating Organization. You will find their website at www.woodheat.org.

# WETT Board of Directors 2010-2011

The new board of WETT Inc. was confirmed at the Annual General Meeting held in Halifax on June 11, 2010. The new board is:

Director	Prov.	Joined	Ending	Representing
Dave Allen	NS	2010	2012	Technician, Chimney Sweep
Vince Aubé	ON	2009	2011	Technician, Chimney Sweep
John Billwiller	BC	2010	2012	Technician, System Advisor
Pat Cormier	NB	2009	2011	Technician, Chimney Sweep
Zigi Gadomski	BC	2009	2011	Technician, Chimney Sweep
Dan Heibert	MB	2010	2011	Inspector
Mike Kempton	NS	2010	2012	Inspector
Gord Little	AB	2010	2012	Technician, System Advisor, Chimney Sweep
Jesse Richer	ON	2009	2013	Technician
Jody Savoie	NB	2009	2011	Technician, System Advisor
Greg Smith	NS	2010	2012	(Chimney Sweep) Inspector
John Trozzo	ON	2010	2012	Inspector

You may recall that in 2009 the bylaws were changed to ensure that all categories of WETT certification are represented on the board.

The board thanks those board members whose term ended. Our thanks are extended to WETT Treasurer Brad Leonard from Kingston ON, Rhéal Caisse from Richibucto, NB and Henry Nagtegaal from Winnipeg, MB. They all served us well.

### **Selkirk Training Bursary**

Applications for the 2010 Selkirk Training Bursary are due by October 1, 2010.

**What is the bursary?** The purpose of this bursary is to provide financial assistance to a person seeking WETT certification as an installer, system advisor or sweep following the WETT path to certification. The winner will have the course fees waived for:

- The Code Compliance Course, and
- The course fees for either the Wood Burning Systems Course **or** the Chimney Sweep Course.

Please consult the WETT Path for Certification for complete details on the process for seeking WETT Certification. The winner will still be responsible for any travel, accommodation or other personal expenses related to attending the course. The courses must be taken within one year of the bursary being awarded. The bursary is not transferable and has no cash value.



#### Who is eligible?

- Eligibility will be open to applicants who are Canadian citizens, residing in Canada, seeking WETT certification. No employees or family members of employees of Selkirk can apply for this award.
- No WETT board members, WETT affiliates, or WETT certificate holders, nor their respective immediately family members can apply for this bursary.

**When do I apply?** The bursary will be awarded once a year. The bursary for 2010 is still available and applications are welcome. Applications must be received by October 1, 2010.

How do I apply? For application details visit: http://www.wettinc.ca/bursary.html

**How is the winner chosen?** A committee struck by WETT Inc. annually will review the applicants to select the nominee. Recipient selection criterion will include but not limited to: prior exposure to the industry, perceived interest in the programs, references provided and perceived financial need.

#### **Bylaw Excerpt:**

shall be a minimum of eight (8) Directors and not more than twelve (12) Directors consisting of at least two each of WETT certified advisor, inspector, technician and sweep with no more than five from any one category. In the event of less than two per any one category being nominated and elected, the position will be held as vacant until a member from this category is appointed by the Board.

The term of office of each Director shall be two years. The immediate past President shall sit on the Board of Directors by virtue of office.

In order to achieve the principle of continuity, terms of office of the directors shall be staggered in order to ensure that at least half of the Board of Directors remains during the nomination and transition of new Board members to meet the Corporation's purpose and objects from year to year. In the first year of enactment of these bylaws (2009), to implement staggered board terms, 50% of the board, excluding the President and Past President, will be asked to volunteer to serve a one (1) year term. In the absence of sufficient volunteers, a draw will select directors for a one (1) year term.

Directors shall be eligible for re-election provided that no individual shall serve for more than 4 consecutive terms (8 years). Any director may be re-elected subsequently, provided that a two (2) year period has elapsed since his or her previous term as director.