



Residential Garages and Solid-Fuel Heating

If you want to start a lively debate among any group of installers, ask about installing a wood stove in a residential garage. The discussion is sure to be entertaining and you will likely hear a number of conflicting ideas. Some are of the opinion that a solid-fuel-burning appliance should not be installed in a garage. Others have no difficulty with this providing a few precautions are taken. And then there are those who do not know either way.

Why the fuss? There are a number of reasons and most of them are due to differences in how to interpret CSA B365 *Installation Code for Solid-Fuel-Burning Appliances and Equipment*. The section that deals with solid-fuel appliances in residential garages can be found under section 3.3 *Hazardous Locations*. The wording reads as follows:

An appliance shall not be installed in a location where a corrosive atmosphere, flammable gas or vapour, combustible dust, or combustible fibres may be present. An appliance may be installed in a (a) storage or residential garage, provided that the appliance is mounted at least 450 mm (18 in) above floor level and protected against physical damage; . . .

The first point that ought to be considered prior to installation is to determine how a garage is being utilized. After all, the primary purpose of a garage is for motor vehicle storage. Aside from cars and trucks, homeowners often store motorcycles, all-terrain-vehicles, lawn mowers, weed eaters, chainsaws and other assorted equipment that all burn fuel. The garage is also where a lot of do-it-yourself mechanical repairs are completed. Oil, grease, jerry cans, propane, solvents and other flammables are commonly found in most residential garages. So the question needs to be asked: Is the typical garage any place for errant sparks or open flames?

Patrick Cormier, past president of WETT says, "No. It's about common sense. The presence of gasoline alone should be reason enough for concern. This stuff is really quite dangerous. Any fuel that leaks or gets spilled quickly evaporates, and these vapours are heavier than air, so they spread out at floor level or pool up in confined spaces. Then, all it takes is a single spark to ignite a flash fire. If oily rags or solvents are present, things can turn nasty in a hurry." According to Patrick, there really should be no confusion in the interpretation of B365. To him, the wording clearly prohibits a solid-fuel-burning appliance within a garage that is being used for what would be traditional vehicle storage purposes. It is for this same reason that some insurance companies will not provide coverage if a solid-fuel-burning stove is installed within a garage. This view is also held by the National Fireplace Protection Agency¹ in the United States. The NFPA specifically prohibits solid-fuel-burning appliances within a residential garage².

Garages that are converted into woodworking or crafting workshops may be no better. Aside from highly flammable oils and solvents that are commonly used, wood fines that get kicked up into the air by cutting, planing, or sanding could be potentially explosive. These airborne particles are highly flammable. Again, the prescriptive wording of B365 could prohibit installation of a solid-fuel burning appliance in these applications.

¹ In the U.S., The National Fire Protection Agency develops, publishes, and distributes codes and standards intended to minimize the possibility and effects of fire and other risks.

² This policy is outlined in NFPA Standard #211.

Removing Clay Tiles

Is the **Fear** and **Loathing** really warranted?

Without question, there are masonry chimneys being re-lined with pipe that is smaller than it ought to be, but what other solutions are there when you are dealing with a tight, restrictive clay tile? If the chimney is suitable, the answer is easy—you knock the tile out to make room. Pros do it all the time. If you have never done it yourself though, we know it can be very intimidating. But if you plan on staying in this business for the long run, it is something you must get comfortable with. So, where do you start?

Aside from knowing how to break out a clay tile, it is just as important to know why and when this should be done. The basics are available to you within Chapter 4 Chimneys and Venting of the WETT Reference Manual. Make sure you closely follow the advice offered in sections 6.1 through 6.7. More information is also available from vent suppliers who specialize in re-lining systems. From there, it will be up to you to prepare and arm yourself with the right equipment. Before attempting this on your own, ask if you can tag along on a job with another team that already knows what it is doing. You will be very fortunate if they agree to invite you to join them. Many veterans jealously guard their secrets in this area—and for good reason. This skill is in high demand and they do not want to train their competition.

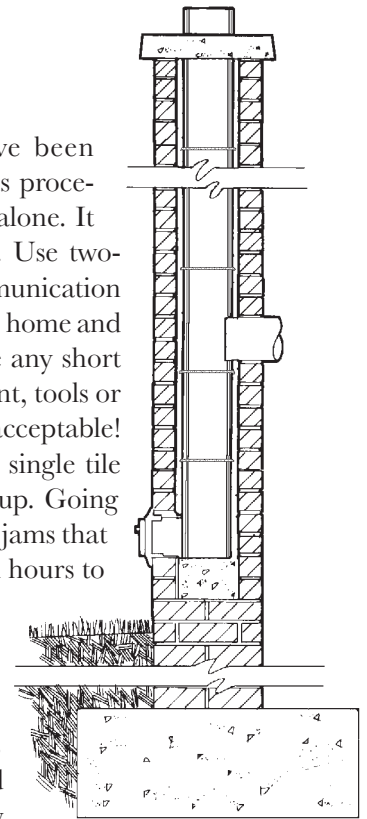
Elizabeth Mason **Academic Achievement Award**



In memory of Elizabeth Mason who passed away last year, WETT has created the Elizabeth Mason Academic Achievement Award. Elizabeth was a long standing WETT member committed to advancing the goals of organization. Originally from British Columbia, Elizabeth was a retailer in Nova Scotia who

later in her career become the Registrar for WET-NS. Elizabeth was very active in Nova Scotia serving on countless committees and managing multiple projects for WET-NS. Elizabeth also made valuable contributions to WETT nationally by working with the WETT national board's numerous initiatives.

A few additional tips have been offered. Remember that this procedure cannot be performed alone. It is definitely a two-man job. Use two-way radios to improve communication between personnel inside the home and up on the roof. Do not take any short cuts on ventilation equipment, tools or restraint gear—unsafe is unacceptable! Work slowly by removing a single tile at a time from the bottom up. Going any quicker will only lead to jams that could end up adding several hours to a job. If chunks of tile get hung up within the chimney, do not try to push these loose from above as you might only make things worse. It is better to carefully poke and prod at blockages from below until they fall free. Short, heavy-duty brush rods will come in handy for this purpose. And like most everything in life, remember that it will get easier each time you do it.



If you need even more motivation to get going with adding this skill to your repertoire, just know that it gives your potential customers another good reason to call you. Also know that those who perform this service with confidence and professionalism seemingly have no shortage of work!

The purpose of this award is to acknowledge and award excellence and commitment to a new program entrant who has successfully completed the Code Compliance Course with the highest marks in a given period. The winner will be announced annually each January. Candidates will be selected from all who successfully complete the Code Compliance Course in the prior year. There will only be one winner per year. The award includes a credit toward the course fees for the WETT Woodburning Systems course or a cash equivalent.

We are pleased to announce that **Andy Byker** of Chilliwack, British Columbia is the 2009 award winner.

Tool-Time

Inspection cameras are now the new “must-have toy” for technicians in our industry. While these tools have always been high on the wish list, not everyone could afford one... at least until now.



The major tool manufacturers have come to market in recent years with inexpensive snake cameras. For under \$200, you can get a gadget that will allow you to see within, beneath or behind hard-to-reach areas that you otherwise could not. There are plenty of applications where this ability could save you time and money. Obvious uses include:

- **finding obstructions in flue pipes, chimneys or ducts**
- **inspecting heat exchangers**
- **tracing or locating wiring within a wall**
- **taking a sneak peek at framing or trusses prior to cutting an opening**

As a side bonus, you could also use it to look for change or to locate the TV remote under your couch without getting down on your hands and knees. We will not even discuss other more humorous applications!

Before rushing out and buying one, though, there are a few things you should know. These low-cost cameras do have limitations. The monitor size and resolution can sometimes make it very difficult to identify what you are actually looking at. The cable lengths are limited and many models are also incapable of capturing and recording images, which would prevent use for formal inspection or presentation purposes. Things are changing quickly however, and at least one manufacturer will be offering upgrade options to permit digital recording.

2010 WETT Annual General Meeting
Halifax Nova Scotia • Friday June 11, 2010

Please watch the WETT website for location information

Residential Garages and Solid-Fuel Heating *continued from the cover*

That said, the language with B-365 is open-ended enough to permit installation of a solid-fuel appliance within a garage if it is being used for storage or other purposes that do not present a hazard. Even then, two precautions must be taken:

1. The appliance must be installed a minimum of 450 mm (18 inches) off the floor.
2. The appliance must also be protected against physical damage.

The rationale for requiring clearance off the floor again relates to concerns with flammable vapours that may collect at floor level. This clearance height is intended to keep the flame source well above any vapours, but there can be confusion here too. Does the 450 mm apply to the bottom of the stove body, to the bottom of the door opening, or to the very bottom of the stove legs? It is hoped that a future revision to B365 will clarify this requirement.

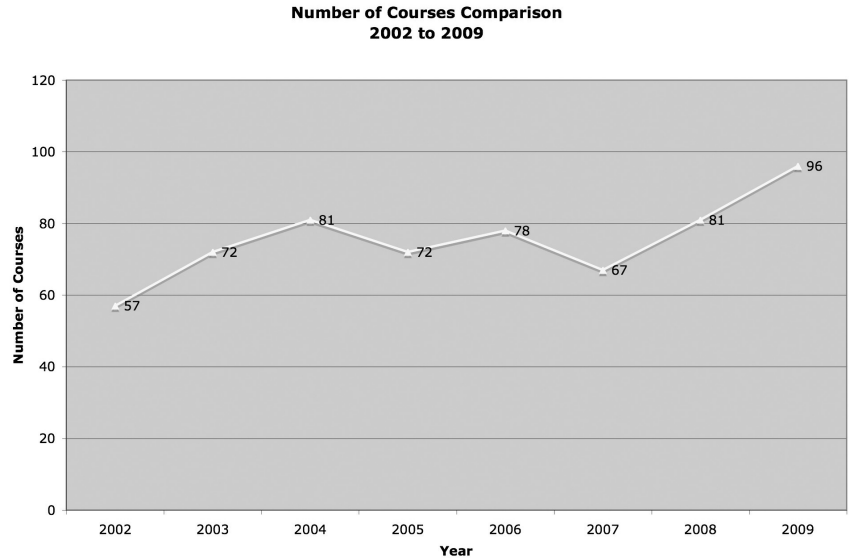
Point two also causes many differences of opinion. What constitutes “protection”? Further, why is this even required? The rationale is that regardless of how a garage is presently being utilized, vehicle storage is always a possibility as long as an oversized garage door remains in place. If the solid-fuel appliance was hit by a motor vehicle or other heavy object, the damage to the stove or vent could spill burning logs, hot coals and flue gases into the garage causing serious fire and smoke damage, personal injury or—worse yet—death. As a result, B365 calls for protection and most inspection authorities interpret this as being some form of physical barrier. This could take the form of two large diameter steel pipes embedded in the concrete floor in front of the appliance. Care should be taken to ensure the barriers are not so close that they interfere with the travel of the appliance’s loading door. Adequate clearance should be left to allow easy access for re-fueling and to permit routine maintenance.

The cost of constructing a stable platform and barrier that will meet the requirements, yet also meet the appliance’s floor protection clearances, could be prohibitive. Even then, there is a good argument being made that a potentially unsafe condition is not being made any safer with these two measures. Questions are being asked as to how these requirements could provide any reasonable level of protection against accumulated vapours that are deeper than the prescribed height. Another concern is with vapours that might be drawn into the appliance through convection currents. These are valid concerns that should be considered carefully.

If you are still thinking about installing a solid-fuel-burning appliance in a garage after reading this article, be sure to consult your local authority having jurisdiction first for direction as to their interpretation of the B365. If you do proceed, be sure to include a smoke detector and fire extinguisher in your plan.

WETT Course Attendance Comparisons 2002-2009

As you can see on the chart to the right, the year 2009 was a very busy one for WETT courses. Course delivery increased by 15 per cent over 2008 and we had 45 per cent more students attend. The Affiliates are to be congratulated for their diligence and dedication. Keep up the good work!



2010 Selkirk Bursary Award

Applications for the 2010 Selkirk Bursary Award are due by May 1, 2010. 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
- Either the Woodburning Systems course or the Chimney Sweeping course.

For more information please visit the WETT website at <http://www.wettinc.ca>. WETT is pleased with the support offered by Selkirk Canada and we applaud their commitment to training.

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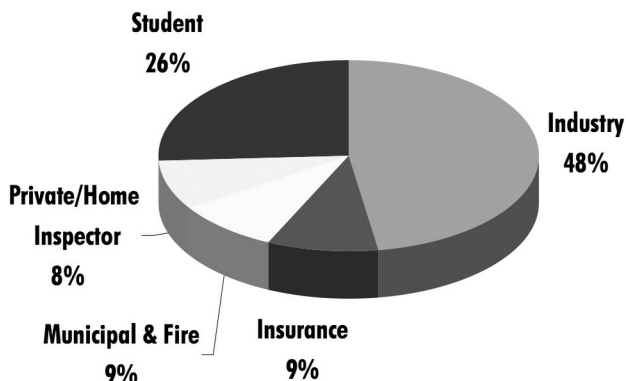
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2010 WETT Elections

In 2009 the WETT membership approved a bylaw change which included a provision for staggered Board of Director terms. Previously the Board terms all ended at once, so technically the entire Board could have left at the same time; this is not the best governance model. With the new process, every year positions will be available for election to the WETT board. In 2010 six positions will become available. Please watch future communications for board position nominations.



Distribution of WETT Membership 2009