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## Damaged during construction

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NEWS

By Simon Blake

As reported last month, just about everyone agrees that using residential forced air furnaces for construction heat is a bad idea. Drywall dust and other construction debris leaves the new homeowner with what is basically a used furnace that may neither perform as intended nor last as long as it should. As a result, the practice is expected to be banned beginning in September.

“The main problem is dust... Debris gets tossed down the supply and return ducts. It’s a mess,” remarked Joe Krebs, contract manager for Applewood Heating and Air Conditioning, Mississauga, Ont.

“There have been so many issues with this; the biggest one being that the residential customer is taking over their new home and in actual fact they are not getting a new furnace. Who knows what kind of stress it has been under and for how long?” remarked Warren Heeley, HRAI president.

Contractors face callbacks and added labour costs. Manufacturers have spent a staggering amount of money over the years on warranty repairs. “You do notice damage,” said Krebs. “You’re replacing high and low limit switches because the furnaces are cranked up high and the windows are left open. Filters aren’t being cleaned...”

Often contractors will get a service call during construction because the electronics on today’s units are more sensitive and will shut the unit down if, for example, the filter is clogged. “It definitely costs everybody money and reduces the life of the furnace,” he added. “Builders won’t stop doing it because it’s the most cost effective way for them to heat the house.”

### **End to practice sought**

However, manufacturers and HRAI have teamed up to end the practice. HRAI is urging all furnace manufacturers to revise their furnace installation manuals to prohibit gas furnaces from being used in construction heat effective Sept. 1.

“I think finally we’ve got to the point where the downside of this to the homeowner, the equipment manufacturer and the contractor has finally come to the fore,” said Heeley. “We can’t keep doing this. The contractor is going to back up that warranty work on to the manufacturer, so they’re paying to repair these furnaces – brand new furnaces – because they were using them improperly.”

There is a significant cost to contractors as well, noted Krebs, because callbacks often occur after the 60-day period during which the manufacturer covers labour, not to mention the cost of having an employee tied up who is needed elsewhere.

At this point, HRAI has the support of all its member forced air furnace manufacturers. However, it only takes one manufacturer to defeat the plan. "If one breaks rank, then he has an advantage with whatever builder he is selling to," Heeley noted.

### **Code change ruled out**

HRAI decided against trying to get the CSA B149 gas code changed to prohibit the practice. If manufacturer's instructions prohibit it, the code would back them up because furnaces must be installed and operated in accordance with the manufacturers instructions.

"The authorities more or less said that's really the furnace manufacturer's issue; if you don't want your product used that way, then you have to state that in your instructions ..." said Heeley.

It hasn't always been that way, reported HRAI in a position paper released Jan. 29.

Until 2000, the CSA B149 code prohibited the practice. However, some manufacturers did not specifically state that in their instructions, leading the CSA to revise its gas furnace standard to allow furnaces for construction heat if certain criteria were met.

The Technical Standards and Safety Authority (TSSA) in Ontario realized that this was in conflict with the Ontario Gas Utilization Code and subsequently, on Feb. 1, 2000, stated that gas furnaces could be used for construction heat where permitted by manufacturer's instructions and where manufacturers have issued letters of authorization to inspectors to allow it.

And that's when the problems began. A significant number of HRAI members voiced concern that contractors and builders were not, for the most part, complying with TSSA's advisory, resulting in damage to the furnaces. TSSA staff, at the time, stated that it would be easier to enforce a prohibition as opposed to inspecting for certain criteria.

HRAI had also received a request from the Toronto Residential Air Handlers Group (now the Residential Heating Ventilation Contractors Association or RHVCA) asking manufacturers to change their position and not allow furnaces to be used for construction heat since it quickly became apparent that builders were not ensuring the furnaces and ductwork were cleaned and put in good operating condition. The responsibility therefore fell onto the installing contractors.

Not much has changed in 15 years, except that cleaning the new high efficiency furnaces is even more difficult. If the secondary coil becomes clogged with drywall dust sucked down the return vent, the entire heat exchanger must be pulled to do a proper cleaning.

The inspection process involves more than a quick look – the entire blower assembly must be removed, taken apart and put back together. These steps are seldom done and the furnace operates poorly and doesn't reach its stated efficiency.

**Action at last**

In the fall of 2015, once again the RHVCA reported to HRAI that proper procedures were not being followed and called for a prohibition on the use of furnaces for construction heat.

HRAI received an overwhelming response from manufacturers and contractors who agreed that a prohibition is in the best interest of all groups involved in this issue – homeowners, manufacturers and contractors. The HRAI Manufacturers Board endorsed this position in November.

Gas utilities are also becoming involved. Since Jan. 1 Enbridge Gas Distribution has required home builders to pay for an inspection to ensure the home is ready – all closed in – for construction heat and forbidding anyone other than their own employees from turning on the gas. “They do an inspection and they won’t turn the gas on in a home that isn’t clean and ready,” said Krebs.

HRAI officials note that homebuilders have alternatives such as natural gas and propane construction heaters. While the Sept. 1 deadline is not far away, it will allow manufacturers sufficient time to revise their instructions and inform the industry that, as of that date, new furnaces cannot be used for construction heat.



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