



INFORMATION BULLETIN

PORTABLE APPLIANCE AND FAN EQUIPMENT EFFECTS ON BUILDINGS

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The BC Safety Authority, which regulates the installation and use of natural gas and propane fuelled equipment in the Province, would like to advise homeowners/occupants of a recent Carbon Monoxide incident where a portable air conditioning unit continuously exhausted warm inside air to the outside without sufficient fresh air being brought in to replace it.

Note: fuel burning appliances also include: Wood or Oil burning

This condition is known as “depressurization” and occurs when inside air is exhausted faster than outside fresh air can come in. Excessive depressurization will cause a natural draft appliance to back vent, potentially spilling deadly carbon monoxide into the home. It is important to treat the home as a complete system, for example, dependant on ambient temperature, building design, building tightness, etc., just opening a window on an upper floor could potentially create a chimney effect with-in the dwelling resulting in depressurization.

Section 8.6 of the CAN/CSA B149.1 Installation Code addresses: “conditions created by exhaust fans, air-supply fans, circulating fans and fireplaces. When it is determined that the operation of another **appliance** or other **equipment**, including an exhaust fan, **air-supply** fan, or circulating fan, adversely affects the venting, combustion, or burning characteristics of a gas **appliance**, either the condition shall be corrected (the exhausted air being replaced) or the fuel supply to the affected **appliance** shall be discontinued”.

Atmospheric (natural draft) gas equipment requires sufficient outside air in order to operate and vent safely. Homeowners/occupants need to verify there is an adequate functioning fresh air supply in place for all fuel burning equipment. Special consideration needs to be applied when renovations/upgrades have taken place, eg: new windows, additional insulation, draft-sealing, or installation of a large kitchen exhaust fan, clothes dryer, built in vacuum cleaner or bathroom fan(s). Portable fans/equipment can also exhaust inside air without providing outside air replacement. If there is any uncertainty, it is recommended you contact a licensed gas contractor in your area to assist in determining the safe operation of your gas appliances.



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The BC Safety Authority recommends the installation and use of carbon monoxide detectors. Look for a detector that is listed with the Canadian Standards Association (CSA) or the Underwriters Laboratory of Canada (ULC). Check the expiry date on detectors as they need to be replaced periodically. Detectors are a good safety back up; however, they are not a substitute for regular maintenance, and validation of correct operating conditions of decorative, heating and cooling equipment.

The BC Safety Authority website contains information about the dangers of carbon monoxide poisoning. This information is available through the following link: <http://safetyauthority.ca/be-in-the-know>

A handwritten signature in black ink that reads "Wayne Lock".

Wayne Lock
Provincial Safety Manager – Gas

References:

Safety Standards Act
Gas Safety Regulation
CAN/CSA B149.1 Natural gas and propane installation code

For more information on the British Columbia Safety Authority, please visit our web site at:
www.safetyauthority.ca