



## DIRECTIVE

**No D-G5 070628 5**  
**REVISION: 02**

### Plastic Venting

*This Directive is being issued by a provincial safety manager pursuant to section 30 of the Safety Standards Act.*

**Date of Issue: May 20, 2011**

#### **General Details**

Due to the adoption of the 2007 CSA B149.1 Code Supplements, and the revision of the ULC S636 Standard for Type BH Venting Systems in July, 2008, further clarity in regards to gas appliances approved with Special Venting Systems using plastic materials is being provided.

Where a conflict exists between manufacturers's certified installation instructions and this Directive, the requirements of this Directive shall prevail.

#### **Part 1**

Irrespective of manufacturer's certified installation instructions, where plastic venting materials are specified for use, the following are the only acceptable venting materials:

- 1) Type BH S636 approved for a flue gas temperature of 90 degrees Celsius or greater. Presently, only CPVC and polypropylene vent materials meet this requirement, or
- 2) A manufacturer's proprietary venting system specifically approved for the appliance.

Note 1: Forced –air furnaces certified as category IV appliances are exempt from the above requirements, and may be vented with Type BH S636 materials approved for a flue gas temperature of 65 degrees Celsius or greater (PVC).

Note 2: Although some Certified Installation Instructions state that ABS plastic is permitted, ABS is not approved under the S636 Standard and is not acceptable.

S636 venting materials are only required for the portion of the venting system responsible for removing the products of combustion, including the termination, if applicable, but excluding the appliance flue collar.

Any form of cellular core vent will not be accepted. All existing cellular core venting material shall be replaced at the time of appliance replacement. Additionally, any cellular core material which is found to have deteriorated while in service shall be replaced with an approved venting system.



## **Part 2**

Plastic vent installation for gas appliances requiring ULC S636 certified venting material where there is an existing non-certified plastic vent (other than cellular core).

### **Specific Details**

For installations where the replacement of the entire vent is not possible or an encumbrance is presented, the BC Safety Authority may allow the further use of the existing vent provided that the following criteria are adhered to:

- ✓ The required variance form indicating the reason for the variance request and permit number is completed in full by the contractor and submitted to the authority having jurisdiction prior to the installation proceeding. Additionally, a statement must be attached from the owner or occupant confirming that it has the legal authority to the application of the variance to the regulated product and that it consents to the installation proceeding under the variance.

\*Note: Variances will be reviewed on a case by case basis and managed by the responsible gas safety officer for the area.

- ✓ A minimum of the first 5 feet immediately downstream of the appliance is replaced with appropriate ULC S636 vent material in accordance with this Directive, and transitioned to the existing vent as per the certified installation instructions.
- ✓ The existing vent is visually inspected and found to be in good working order. A signed declaration from a certified gas fitter documenting all inspection and testing performed shall be submitted at the completion of the installation.
- ✓ The existing vent shall be pressure tested as follows:
  - Air or an inert gas shall be used.
  - A minimum test pressure of positive or negative 7 inches water column shall be applied to the entire length of the existing plastic vent, but shall not exceed a pressure of 2 psig.
  - The minimum test pressure of +/- 7 inches water column shall be measured by either a pressure gauge or equivalent device and, if a gauge is used, the minimum diameter shall be 3 in (75 mm) and the maximum range shall exceed the test pressure by at least 15% but not more than 300%.
  - The pressure gauge or equivalent device shall be calibrated to read in increments of not more than 2% of the maximum dial reading of the pressure gauge.
  - The minimum test pressure shall be applied for at least 5 minutes and at least 75% of the test pressure shall be retained.



A permanent notice must be affixed to the affected gas appliance and in plain sight of the end user indicating the above requirements have been performed, and also contain a recommendation that the physical venting inspection and pressure testing as detailed above occur every 5 years.

Where the above variance criteria cannot be complied with or is unacceptable to the authority having jurisdiction, a venting system certified to ULC S636 and installed as per this Directive and the manufacturer's certified installation instructions must be used.

Any fees encountered throughout this Variance process will be paid by the applicant.

A handwritten signature in black ink, appearing to read "E. Skehor".

Eric Skehor  
Provincial Safety Manager - Gas

**References:**

Bill 19 – 2003	Safety Standards Act
B.C. Reg. 134/2009, April 1, 2009	Gas Safety Regulation
B.C. Reg. 134/2009, April 1, 2009	Safety Standards General Regulation
CAN/CSA – B149.1 Natural Gas and Propane Installation Code.	

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