



INFORMATION BULLETIN

PIPE SIZING AND PRESSURE DROP REQUIREMENTS

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Topic

This is a reminder that where a conflict exists between the manufacturer's certified installation instructions and the Natural Gas and Propane Installation Code, the requirements of the code shall prevail unless otherwise approved. This is meant to correct claims by some manufacturers and distributors of gas appliances that their appliances will operate with gas pressure drops in excess of the limits indicated in Clause 6.3.2 and Table 6.1 of the CSA B149.1 Natural Gas and Propane Installation Code, and that undersizing of supply piping is an acceptable practice when installing or retrofitting these appliances.

Important Information

Stakeholders are reminded that Clause 4.1.4 of the B149.1 states:

*Where a conflict exists between the manufacturer's **certified** installation instructions and this Code, the requirements of this Code shall prevail unless otherwise **approved**.*

Although these appliances may operate safely with an excessive pressure drop, other appliances installed on the system may be adversely affected by the "draw-down" of a piping system not designed or installed to deliver the minimum pressures prescribed in the code. Scaling, plugging, carbon monoxide production, and premature failure of heat exchanger components are possible if an inadequate pressure and volume of gas are not supplied.

If a pressure drop in excess of the code limits is desired, a gasfitter may apply for a variance as authorized by s.32 of the *Safety Standards Act*. The request must be submitted **prior to the installation of the appliance** on the "Request for Variance" form available here: <http://www.safetyauthority.ca/form-1076> and include a pipe sizing diagram and calculation verifying the system pressure drop and capacity.

The low pressure calculation contained in Section A.3.5 of Annex "A" of the B149.1 code, or another formula considered to be good engineering practice, may be used. The system must be sized to provide minimum required inlet pressures and volumes to all appliances connected to the system

A handwritten signature in black ink, appearing to read "Brad Wyatt".

Brad Wyatt
Provincial Safety Manager - Gas

References:

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

For more information about British Columbia Safety Authority, please visit our website at:
www.safetyauthority.ca