

## Gas Bulletin: Adoption of the B149 2020 Gas Codes

July 22, 2022  
ITS 22-007

The 2020 editions of the following Gas Codes will come into effect in Manitoba on September 1, 2022:

- **CSA B149.1-Natural gas and propane installation code**
- **CSA B149.2-Propane storage and handling code**
- **CSA B149.3-Code for the field approval of fuel-burning appliances and equipment**

These codes are being adopted in Manitoba without amendments. Adoption of these new code editions will bring Manitoba in line with our New West Partnership counterparts in Western Canada and other Canadian jurisdictions.

A summary of the key changes in the 2020 Gas Codes are indicated below:

### CSA B149.1-2020 Natural gas and propane installation code

- General: Removal of bold and italicized text and symbols indicating revisions to improve accessibility by allowing for digital readers.
- General: Updated scope to align with industry standards and clarify intended application of the code, specifically excluding propane used as a refrigerant.
- Clarifies that when propane is used as a refrigerant, it falls under the scope of The Steam and Pressure Plants Act.
- Clause 4.7.4: Changes to bonding requirements for gas systems including specific requirements for CSST tubing.
- Clause 4.22.2: Updated general requirements including electrical connections and components, and requirements for high altitude installations.
- Section 5: Revisions and updates to requirements for pressure regulators and overpressure protection devices to align with nationally recognized standards for line pressure regulators. Revisions and restructuring of this section are also to clarify requirements and remove ambiguity for line pressure regulators, overpressure protection devices, and venting of pressure control devices, including:
  - Introducing pressure control requirements for systems with service regulator delivery pressure of 2 psi or less.
  - Introducing pressure control requirements for multi-stage regulation for systems with delivery pressure greater than 2 psi.
  - Recognizing and clarifying requirements for the installation of “vent-less” regulators.
  - Clarifying where the vent lines from the relief device may be reduced based on the use of certified regulators with overpressure protection.
- Clause 6.9.4: Updated requirements for welding and weld inspections providing clarification and aligns code with nationally recognized piping standards and provincial regulatory requirements for pressure welding under The Steam and Pressure Plants Act.
- Clause 7: Updates for requirements for individual appliance types. Specific requirements for generators and stationary engines relocated to the B149.3 code for field approval of fuel burning appliances and equipment to align with the scope of the codes.
- Clause 7.22: Clarification of requirements for direct fired process air heaters used in a spray application.
- Annex K: A new informative annex was developed and added containing explanatory information regarding the changes to Section 5.

- Annex M: The new mandatory annex outlines specific safety requirements for the operation of temporary installations of propane and associated appliances at shows, exhibitions, or other similar events.

### **CSA B149.2-2020 Propane storage and handling code**

- General: Removal of bold and italicized text and symbols indicating revisions to improve accessibility by allowing for digital readers.
- Scope: Additions and editorial amendments to the scope of the code clarify the inclusion of container storage at container refill centers and exclusion of the use of propane as refrigerants.
- General: Editorial changes throughout reflect the terminology and revisions to defined terms and Section 5 of B149.1.
- Clause 6: Content added to provide coverage and processes for filling of cylinders for hot air balloons where there was no coverage before. This aligns with Transport Canada's amendment to Transportation of Dangerous Goods Regulation to harmonize hot air balloon requirements across North America.
- Clauses 6.4 and 6.5: Updated requirements for cylinder exchange, including allowing for new technologies in cylinder exchange vending machines that can be proven to provide an equivalent level of safety to those previously required by the code.
- Clauses 7.10, 7.11, and Table 7.4: Revisions to clearance requirements for consumer propane tanks to align with NFPA. Concrete base securing vertical tanks greater than 125 USWG capacity must now have footings below the frost line, Table 7.4 expanded to include larger tanks up to 30 000 USWG (previously 10 000 USWG).
- Clause 9.3.5: New reference to nationally recognized certification standard for direct fired vaporizers.
- Annex O (new): New mandatory annex prescribes requirements for the use of non-refillable propane cylinders in a laboratory or classroom. The requirements for this use were not outlined in previous versions.
- Annex Q (new): A new informative annex for the temporary use of propane cylinders at shows, exhibitions, and similar events.

### **CSA B149.3-2020 Code for the field approval of fuel-burning appliances and equipment**

- General: Removal of bold and italicized text and symbols indicating revisions to improve accessibility by allowing for digital readers.
- General: New title to accurately reflect application of the code. Previously Code for the field approval of fuel-related components on appliances and equipment.
- Scope: Editorial changes to the scope of the code clarify code application.
- Definitions: New and revised definitions to support newly developed content on risk-based management systems, portable equipment, stationary engines and turbines, and flare pilot systems as well as aligning with updates to B149.1.
- Clause 17: New clause 17 for "Generators, compressor/pressure boosters, engines, and turbines" as requirements were relocated from B149.1 to the B149.3 and developed further.
- Clause 18: New clause 18 for "Flare pilots," removed from Annex E and relocated into the body of the code.
- Clause 19: New clause 19 for "Appliances in complex and integrated facilities." This, along with guidance provided in Annex L, provides a method for approval of equipment under an approved risk assessment and mitigation program.
- Clause 20: New clause 20 "Additional requirements for portable appliances and equipment" provides specific requirements for appliances and equipment that are self-contained and can be relocated from site to site.
- Annex J: New informative annex for mobile outdoor food service units reconciles code requirements from those found in B149.1, B149.2, and B149.5 to one location, to be adopted as normative.

Everyone responsible for conducting gas related work is encouraged to familiarize themselves with the 2020 editions of the CSA B149.1, 149.2 and 149.3 Gas Codes, which can be purchased online from the CSA Group.