

**CSA B51:24 IMPACT TESTING****Date of Issue: November 28, 2024****No: IB-BP 2024-02**

Effective December 31, 2024, the 2024 edition of the CSA B51 Boiler, Pressure Vessel, and Pressure Piping Code will be adopted in British Columbia under the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation (PEBPVRSR). While this edition will be adopted in British Columbia on December 31, 2024, many jurisdictions across Canada will not adopt the newest code edition by this date. This presents potential challenges with regards to equipment design and registration leading to inconsistency and uncertainty for owners, designers, and manufacturers.

Technical Safety BC supports national harmonization efforts and strives to reduce differences between jurisdictions as much as possible to streamline regulatory compliance while maintaining the necessary requirements and processes to ensure the safety of technical systems and equipment. This is one of the reasons British Columbia signed the [CRN reconciliation agreement](#) on January 1, 2020.

**Technical Requirements**

The 2024 edition of the CSA B51 will bring into effect several technical changes. The most notable of these changes, which has raised questions for industry, is the new impact testing requirements for pressure vessels (clause 6.2.6.1 and 6.2.6.2) and pressure piping (clause 6.3.7.1 and 6.3.7.2). To address industry's concerns and ensure an adequate amount of time is provided for national alignment on adoption and industry adaptation, Technical Safety BC will take the following actions:

1. The new impact testing requirements specified in CSA B51:24 clauses 6.2.6.1, 6.2.6.2, 6.3.7.1, and 6.3.7.2 will not be immediately enforced when the code comes into effect on December 31, 2024.
2. We will work with other jurisdictions to allow for national alignment and harmonization with respect to these requirements.
3. Once sufficient agreement and adoption with other jurisdictions has been reached, Technical Safety BC will notify industry and provide a transition period for manufacturers to prepare for the introduction of these new requirements.

It remains the responsibility of owners, designers, manufacturers, and repair organizations to carefully review material toughness requirements on a case-by-case basis to determine if it might be necessary to apply one or more supplementary material requirements, such as heat treatment (specifying normalized material), fine grain size, impact testing, and/or more restrictive chemistry requirements (e.g., manganese-carbon ratio greater than 5.0). Designers, fabricators, and repair organizations should review carbon steel toughness requirements with the owner, where appropriate, before applying an impact testing exemption allowed under the ASME code of construction.

Provincial Safety Manager – Boilers, Pressure Vessels, and Refrigeration

**References:**

Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation  
CSA B51:24 Boiler, Pressure Vessel, and Pressure Piping Code