

Boilers & Pressure Vessels Code Adoption Document 2025 Consultation Summary

Introduction

The Boilers and Pressure Vessels Code Adoption Document (BPV CAD) adopted by reference in O. Reg 220/01, adopts national safety codes into regulation. This CAD was last updated and published in August 2024.

TSSA is moving to harmonize its code requirements with other jurisdictions. This means less Ontario-specific requirements. The CAD adopts the latest version of the following codes:

- CSA B51 (2024 Edition) Boiler, Pressure Vessel and Piping Code.
- CSA B52 (2023, Update 1) Mechanical Refrigeration Code.
- CSA N285.0 General requirements for pressure-retaining systems and components in CANDU nuclear power plants

A full list of the changes from previous editions for CSA codes can be found on CSA Group's website under the "Preface/Scope" section.

Summary of Consultation

TSSA completed an online consultation on the draft 2024 BPV CAD. The consultation was launched on March 24, 2025, and remained open for a 30-day period. The consultations closed on April 24, 2025.

	BPV CAD Consultation Highlights				
Informed Participants (reviewed/downloaded documents)	Participants who reviewed the documents and did not have comments	Participants who reviewed and submitted comments			
96	70	26			

The consultation was shared with more than 11,600 BPV contacts. The survey was completed by 96 participants, of which 70 participants reviewed or downloaded the documents and responded that they did not have any comments, while 26 individuals/entities submitted their comments.

TSSA would like to thank all the individuals and entities who participated in the consultation. TSSA has reviewed all submissions and made every effort to incorporate the requested revisions and changes.

Please <u>subscribe to TSSA News</u> to stay informed of TSSA updates and future consultations.

Publication & Effective Date

The Boilers and Pressure Vessels Code Adoption Document is published on the TSSA website on June 1, 2025, and will be effective on August 1, 2025.



Amendements to Boilers & Pressure Vessels Code Adoption Document (CAD) 2025

TSSA is proposing to amend the BPV Code Adoption Document. The BPV CAD is adopted by reference in O. Reg 220/01 Boilers and Pressure Vessels. The CAD adopts two main national safety codes into regulation. This amendment covers the adoption of CSA B51. This CAD was last updated and published in August 2024 by adopting CSA B52:23.

National codes

The following codes are being adopted by the CAD:

- CSA B₅₁ (2024 Edition) Boilers and Pressure Vessel, and pressure piping code by Canadian Standards Association.
- CSA B52 (2023, Update 1) Mechanical Refrigeration Code.

Summary of Key Changes

The summary below highlights the notable changes from the last update of the BPV CAD:

Ontario Specific Amendments Summary

The chart below provides a summary of the Ontario Specific Amendments (OSAs) only for Section 1 of the CAD:

BPV Code Adoption Document (Section 1 only)					
OSAs in 2024 CAD	OSAs removed	New OSAs	Total OSAs	Net Change	
37	13	9	33	-4	

1. <u>Summary of Changes Section 1:</u>

Since the CSA B₅₁ (2024 edition) has been revised and all clauses have been rearranged, the section numbers in the CAD as result are also revised.

OSA additions:

- Section 1.2, clause 1.2b of the code is revoked and replaced with revised requirements
- Section 1.13, new code clauses of 5.1.1.8 Boilers and high-energy steam piping systems in creep-fatigue service & 5.1.1.9 Construction and installation requirements for boilers and HES piping systems in cyclic service are revised and merged into one clause.
- Section 1.21 & 1.22, code clauses 5.2.7.1 and 5.2.7.2 are revoked and alternative requirements are proposed as in B52.
- Section 1.23, code clause 5.2.7.3 is substituted to include ASME code and CSA B52 requirements.
- Section 1.24, all code clauses that referred to pervious Part 3 relating to Fuel Safety is revoked.



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- Section 1.26, clause 5.4.1 of the code is revised to add additional requirements in Ontario.
- Section 1.27, clause 5.3.2, additional temporary burden reduction requirements are added.
- Section 1.28, code clause 6.1.2 is revised to include design registration and TSSA specific submission requirements
- Section 1.33 and 1.34, code clauses 6.2.6.1, 6.2.6.2 & 6.3.7.1, 6.3.7.2 are revoked to include compliance with the applicable codes of construction
- Section 1.58, Annex G is revoked

Clarification additions:

- **Section 1.1,** adds clarification about the scope of the code
- Section 1.14, code clause 5.1.1.10 is amended to add clarification on not overriding minimum periodic inspection cycle
- Section 1.20, code clause 5.2.4.13 adds owner's responsibility on utilization of properly design blowoff vessel

Revisions:

Following sections have been revised.

- **Section 1.3**, references have been revised to include reference publications adopted by the revised CAD.
- **Section 1.4,** definitions have been revised to update definitions of authorized inspection body, revoke definition of external and internal audit, and add new definition for hydrogen electrolyzers.
- **Section 1.5**, the note is revised to update the referenced information. (code clause 4.1.1.2)
- Section 1.9 is revised to update the information required for item a). (code clause 4.1.3.1)
- Section 1.34 is revised to include updated references (code clause 6.4.1)
- Section 1.45 is revised to include additional requirements (code clause 7.4.4.1.3)
- **Section 1.79**, Annex I is revoked with conditions.
- Section 4 is revised to include additional provisions and updated references
- Section 5 is revised to add hydrogen electrolyzers' periodic inspection cycle; add failed ROI submission requirements; update record of inspection items as per the BPV Portal, and some revisions to remove redundancy with regulation.
- Section 8 is revised to improve language clarity
- Section 9 is revised to add updated requirements

Deletions: (Sections here refer to sections of the 2024 version of the BPV CAD, and B51-19).

- Section 1.9, amendment o code clause 4.4.2 is deleted
- Section 1.19, amendment to code clause 4.10.1.2 is deleted



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- Section 1.31, amendment to code clause 8.6 is deleted
- Section 1.5 amendment to code clause 4.2.1 is deleted
- Section 1.6 amendment to clause 4.2.3 is deleted
- Section 1.8 amendment to clause 4.3.4 is deleted
- Section 1.24 amendment to clause 4.14 is deleted
- Section 1.37 amendment to clause 13.1 Note 1 is deleted
- Section 1.71 reference to Annex A is deleted
- Section 1.80 reference to Annex J is deleted
- Section 1.81 reference to Annex K is deleted
- Section 1.82 reference to Annex L is deleted
- Section 1.52 reference to Part 2 is deleted
- Section 1.53 reference to Part 3 is deleted

2. <u>Summary of changes Section 2:</u>

Section 2 has adopted the CSA B52:23 Update 1 code.

Deleted OSAs:

• Section 2.14 of the CAD on clause 6.3.1 b amendment is deleted as the Update 1 version of the B52 code addresses these requirements.

3. <u>Summary of changes (Sections 4 to 10):</u>

Revisions:

- Section 4.1 is amended to include additional provisions for piping systems inspections
- Section 4.2 is amended to include updated forms for certificate of inspection for piping
- Section 5.2 is amended to include hydrogen electrolysers in periodic inspection table
- Sections 5.4.1 and 5.4.2 are revised to include updated reporting requirements for Record of Inspection and reporting of violations.
- Section 8.1 is amended to include additional provisions in item 8.1 (ii)
- Section 8.2 is amended to include additional provisions in item 8.2 (b)