



Boilers & Pressure Vessels Code Adoption Document (2024) Consultation Summary

Introduction

The Boilers and Pressure Vessels Code Adoption Document (BPV CAD) adopted by reference in O. Reg 220/0, adopted a series of national safety codes into regulation. This CAD was last updated and published in January 2021.

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 code:

- CSA B52 (2023 Edition) Mechanical Refrigeration Code published by Canadian Standards Association.

The following codes are not adopted in this version of the CAD amendment. They will be adopted, and a new CAD amendment will be published by April-2025:

- CSA B51 (2024 Edition) Boilers and Pressure Vessels Code published by Canadian Standards Association.
- CSA N285.0/N285.6 (2023 Edition) General requirements for pressure-retaining systems and components in CANDU nuclear power plants/Material Standards for reactor components for 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 for section 2 only. The consultation was launched on June 17, 2024, and remained open for a 30-day period. The consultations closed on July 16.

TSSA would like to thank all the individuals who participated in the consultation.

BPV CAD Consultation Highlights		
Visitors to consultation page	Informed Participants (reviewed/downloaded documents)	Engaged Participants (Submitted Feedback)
353	170	20

There were 353 visitors to the Engage TSSA Platform website. Around 170 participants reviewed or downloaded the attached documents, and 20 individuals submitted responses to the survey via the Engage TSSA platform.

In general, the feedback received from participants was supportive of the changes in the draft CAD. from a total of 20 comments, 7 related to technical issues, 8 editorial, 4 appreciation and 1 question.



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Overview of CAD Changes

BPV Code Adoption Document				
OSAs in Section 2 of 2021 CAD	OSAs removed in Section 2 of 2024 CAD	New OSAs	Total OSAs in Section 2 of 2024 CAD	Net Change
11	2	7	16	5

In this version of CAD, TSSA has removed 2 out of 11 Ontario-specific amendments from the 2021 version in Section 2.0. TSSA has added 7 amendments and 1 clarification. An additional 7 clauses in the current version of CAD have been revised to add clarity, additional requirements or introduce burden reduction for industry. 13 clauses have been deleted.

Appendix A of this document includes a summary outlining the key changes between the 2021 and 2024 CAD.

Publication & Effective Date

The CAD will be published on August 15, 2024, and will be effective on October 1, 2024.



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Amendments to Boilers & Pressure Vessels Code Adoption Document (CAD) 2024

TSSA's BPV Program is proposing to amend the BPV Code Adoption Document. The BPV CAD is adopted by reference in O. Reg 220/01. The CAD adopts a number of national safety codes into regulation. This amendment is only focused on the adoption of CSA B52. This CAD was last updated and published in January 2021.

National codes

The following codes are being adopted by the CAD:

- CSA B52 (2023 Edition) Mechanical Refrigeration Code published by Canadian Standards Association.

The following codes are not adopted in this version of the CAD amendment. They will be adopted, and a new CAD amendment will be published by April-2025:

- CSA B51 (2024 Edition) Boilers and Pressure Vessels Code published by Canadian Standards Association.
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Summary of Key Changes

The summary below highlights the notable changes from the last update of the BPV CAD in 2021:

Overview of changes

- B52:23 has revised seven clauses with the addition of Annexes

Ontario Specific Amendments Summary

The chart below provides a summary of the Ontario Specific Amendments (OSAs) only for Section 2 of the CAD:

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In this version of CAD, TSSA has removed 2 out of 11 Ontario-specific amendments from the 2021 version in Section 2.0. TSSA has added 7 amendments and 1 clarification. An additional 7 clauses in the current version of CAD have been revised to add clarity, additional requirements or introduce burden reduction for industry, and 13 clauses have been deleted.

Summary of Changes:

OSA additions:

- **Sub-section 2.6** on stress corrosion recommends post-weld heat treatment for high-temperature vessels.
- **Sub-section 2.7** on refrigerant piping and fittings provides revised requirements on UL207 certification for A1 and A2L systems.
- **Sub-section 2.8** on Evaporator and condenser coils and associated headers is revised to add option of using UL 207 certification permitted by ASME B31.5.
- **Sub-section 2.13** on secondary coolant systems is mandated to be annually monitored for ingress.
- **Sub-section 2.14** on Flammable refrigerant machinery rooms is modified to add requirements for further reducing exposure to flammable refrigerants and fire.
- **Sub-section 2.16** refers to Appendix M for TSSA approvals.
- **Sub-section 2.18** on minimum maintenance requirements has mandated to annually monitor refrigerant exposure.

Clarifications additions:

The following clarification clauses have been added to the CAD.

- **Clause 2.20** on decommissioning added a note about informing the TSSA as stipulated by the Regulation.

Revisions:

Following clauses have been revised.

- **Sub-section 2.2** is updated the Code References section with additions.
- **Sub-section 2.3** is updated to clarify definitions of Act and Laboratory.
- **Sub-section 2.4** is updated to include no submission requirement of data reports for Vessels to TSSA that have been registered National Board.
- **Sub-section 2.5** is updated to clarify the language to the Note to clause 5.3.1.



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- **Sub-section 2.10** is updated by with adding “by a qualified individual” other than just TSSA inspector for inspection for refrigerant pipe joints.
- **Sub-section 2.11** is updated by adding “or Company Qualified Personnel (Inspection) if installed under the Alternate Piping Process” apart from just TSSA inspector for piping systems.
- **Sub-section 2.15** is updated to reference Ontario Electrical code Part 1 requirements.
- **Sub-section 2.17** is updated to remove reference to approval by other regulatory authorities, which maybe evident and does not require to be mentioned in this CAD.

Deletions: (Sections here refer to sections of the 2021 version of the BPV CAD).

- **Sub-section 2.4** clarification of submission to TSSA, since it is evident that TSSA is the AHJ
- **Sub-section 2.5** clarification of submission to TSSA, since it is evident that TSSA is the AHJ
- **Sub-section 2.7** clarification of submission to TSSA, since it is evident that TSSA is the AHJ
- **Sub-section 2.12** clarification of reporting incidents to TSSA, since it is the requirement in the Reg
- **Sub-section 2.15** Reference to Gas devices
- **Sub-section 2.16** Reference to discharge limits for Refrigerants
- **Sub-section 2.17** Reference to alternate storage location of refrigerants
- **Sub-section 2.20** Reference to PPE
- **Sub-section 2.21 to 2.25** reference to normative annexes of the code is removed, as they are adopted by adopting the code.