



CSA B51:24
National Standard of Canada



Boiler, pressure vessel, and pressure piping code



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Preface

This is the twentieth edition of CSA B51, *Boiler, pressure vessel, and pressure piping code*. It supersedes the previous editions published in 2019, 2014, 2009, 2003, 1997, 1995, 1991, 1986, 1981, 1975, 1972, 1969, 1965, 1960, 1957, 1955, 1951, 1945, and 1939.

In keeping with CSA Group's goal of harmonizing its standards with those of other countries to the greatest extent possible, CSA's Technical Committee on Boilers and Pressure Vessels and its Subcommittees have, in the course of developing this Standard, worked closely with the National Board of Boiler and Pressure Vessel Inspectors in the United States and with the American Society of Mechanical Engineers (ASME) committees responsible for producing the *National Board Inspection Code* and ASME's *Boiler and Pressure Vessel Code*.

This Standard contains requirements for boilers, pressure vessels, pressure piping, and fittings. It is intended mainly to fulfill two objectives: first, to promote safe design, construction, installation, operation, inspection, testing, and repair practices; and second, to facilitate adoption of uniform requirements by Canadian jurisdictions.

This Standard has undergone substantial technical and editorial revisions since the previous edition in 2019. The requirements in this edition have been reorganized in a lifecycle format, with four new clause titles: Conformity assessment and quality control systems (Clause [4](#)); Classification of equipment (Clause [5](#)); Equipment manufacturing (Clause [6](#)); and Owner's equipment (Clause [7](#)).

Significant changes include the following:

- a) the requirements of Part 2 in CSA B51:19 have been removed to reflect their inclusion in CSA HGV 2 and CSA NGV 2;
- b) the requirements of Part 3 in CSA B51:19 have been incorporated throughout this Standard;
- c) new requirements in Clauses [5.1.1.8](#) to [5.1.1.10](#) for boilers in cyclic service have been added;
- d) a new Clause (Clause [5.2.4.13](#)) with design guidance for superheated steam sources connected to blowoff vessels has been added;
- e) new definitions and Clauses (Clauses [6.1.1](#) and [7.1.2](#)) laying out responsibilities for manufacturers have been added;
- f) new references to ISO 16528-1 have been added to Clause [6.2.1.1](#);
- g) references to a CCRN or similar organization have been removed;
- h) revisions have been made to address carbon steel toughness requirements, now found in Clause [6.2.6](#), and in a deletion of notes to Clause [5.2.1](#);
- i) new test requirements for carbon steel pipe, fittings, and forgings in Clause [6.3.7](#) have been added;
- j) requirements for welded staybolts, previously found in Clause 6.8 in CSA B51:19, have been removed;
- k) additions to the Table [5](#) Note on in-situ testing have been included;
- l) Clause [C.1.1](#) has been updated to clarify certificate of authorization requirements for safety, relief, or safety relief valves;
- m) Clause [C.2.2.8](#) regarding PRD-certified assemblers or distributors has been revised;
- n) the Statutory Declaration form has been replaced with a new Declaration of Conformity form (see Figure [D.6](#));
- o) a new CRN application form has been added (see Figure [D.9](#));
- p) revisions to Annex [F](#) including
 - i) replacing references to "statutory declaration" with "declaration of conformity";
 - ii) new informative clauses for quality programs; and