



CSA B51:24
National Standard of Canada



Boiler, pressure vessel, and pressure piping code



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Contents

Technical Committee on Boilers and Pressure Vessels 5

Preface 11

SDG Foreword 14

1 Scope 15

- 1.1 Equipment within scope 15
- 1.2 Exclusions 15
- 1.3 Variances with CSA B51 15
- 1.4 Exemptions in Canadian jurisdictions 15
- 1.5 Clause numbering between B51:19 and B51:24 15
- 1.6 Terminology 15
- 1.7 Units of measurement 16

2 Reference publications 16

3 Definitions 21

4 General or administrative systems and requirements 24

- 4.1 Conformity assessment 24
 - 4.1.1 Quality control programs 24
 - 4.1.2 Holders of ASME certificate of authorization 25
 - 4.1.3 Non-holders of ASME certificate of authorization 26
 - 4.1.4 Quality program requirements for organizations performing new construction inspection 26
 - 4.1.5 Quality program requirements for organizations providing design examination services 26
- 4.2 Canadian Registration Numbers (CRNs) 27
 - 4.2.1 Design acceptance by AHJs 27
 - 4.2.2 Identification of additional registrations 27
 - 4.2.3 Reciprocal registration 27
 - 4.2.4 Fitting registration 27
 - 4.2.5 Alternative design rule registration marking 27
- 4.3 Non-destructive examination 28

5 Classification of equipment 28

- 5.1 Fired equipment 28
 - 5.1.1 Boilers 28
 - 5.1.2 Boiler controls 31
 - 5.1.3 Lap-seam riveted boilers 32
 - 5.1.4 Historical boilers 32
 - 5.1.5 Fired-heater pressure coils 32
 - 5.1.6 Fired-heater pressure coils in petroleum and chemical plant service 33
 - 5.1.7 Thermal fluid heating systems 33
- 5.2 Unfired pressure equipment 34
 - 5.2.1 Applicable codes and standards 34
 - 5.2.2 Water heaters 34
 - 5.2.3 Hot water tanks 35

5.2.4	Blowoff vessels, systems, and devices	35
5.2.5	Hydropneumatic tanks	37
5.2.6	Liquefied petroleum gas service	37
5.2.7	Anhydrous ammonia vessels	38
5.2.8	Cushion tanks	38
5.2.9	Cold-stretch pressure vessels	39
5.2.10	Compressed natural gas and hydrogen refuelling station ground storage vessels	39
5.2.11	Natural gas liquid service	40
5.3	Pressure piping systems	40
5.3.1	Design codes	40
5.3.2	Compressed natural gas and hydrogen refuelling station pressure piping systems	41
5.4	Fittings	45
5.4.1	Registration scope	45
5.4.2	Fitting design registration	46
5.5	Pressure relief devices	47
5.5.1	PRD governing standards	47
5.5.2	Water heater relief valves	47
5.5.3	Hot water tank relief valves	47
5.5.4	Overpressure protection specifications	47
5.5.5	Relieving capacity	47
5.5.6	Thermal expansion relief valves	47
5.5.7	CSA B149 series propane service pressure relief valves (PRVs)	48
5.5.8	Training and competency	48
5.6	Refrigeration equipment	48
5.7	Service fluid considerations	48
6	Equipment manufacturing	48
6.1	Responsibilities	48
6.1.1	Manufacturer responsibilities	48
6.1.2	User responsibilities	48
6.2	Design	49
6.2.1	General requirements	49
6.2.2	Welding and brazing procedures registration	50
6.2.3	Documentation for fitting design registration	51
6.2.4	PRD design registration	52
6.2.5	Pressure vessel penetration openings	52
6.2.6	Impact testing requirements	52
6.2.7	Requirements for alternative design rules	52
6.3	Construction	53
6.3.1	Welding or brazing tests in Canada	53
6.3.2	Welding or brazing tests outside Canada	53
6.3.3	Viability of welded joints	53
6.3.4	Soldered joints	53
6.3.5	Bonding of non-metallic joints	53
6.3.6	Mechanical joints	54
6.3.7	Impact testing for pressure piping	54
6.4	Fabrication inspection and examination	54
6.4.1	Authorized inspector for shop inspections manufacturing	54
6.4.2	Individual shop inspection of pressure vessels	55

6.5	Marking requirements	55
6.5.1	General	55
6.5.2	Nameplate requirements	55
6.5.3	Attachment of nameplate	55
6.5.4	Marking of fittings	56
6.5.5	Marking of PRDs	56
6.6	Data reports and documentation	56
6.6.1	Piping data report	56
6.6.2	Item built for stock	56
6.6.3	Multiple identical manufactured items	56
6.6.4	Declarations for sectional boilers	56
6.6.5	Submittal of manufacturer data reports	56
6.6.6	Declaration of alternative rules	57
7	Owner's equipment	57
7.1	General requirements	57
7.1.1	Design basis memorandum	57
7.1.2	Responsibility for design, construction, and installation of piping systems	57
7.2	Installation	58
7.2.1	General	58
7.2.2	Boilers and related components	58
7.2.3	Pressure vessel installation	59
7.2.4	PRD installation	59
7.3	Operation and supervision	60
7.3.1	General	60
7.3.2	Cyclic service and ASME Section VIII, Divisions 1 and 3 pressure vessels	60
7.3.3	Pressure equipment overpressure protection	61
7.4	Maintenance	61
7.4.1	In-service inspection	61
7.4.2	PRD inspections	62
7.4.3	High-energy steam piping systems	65
7.4.4	Repairs and alterations	66
7.4.5	Pressure testing of pressure vessels and pressure piping systems	67
7.4.6	Requalification of vessels in liquefied petroleum gas service	68
7.5	Pressure equipment not in service	68
7.6	Integrity management systems (IMS)	68
7.7	Audit program	68

Annex A (informative)	— Burial of pressure vessels	76
Annex B (informative)	— Quality control program for defect prevention and in-service reliability	77
Annex C (informative)	— Guidelines for safety valve, relief valve, and safety relief valve repair organizations	79
Annex D (informative)	— Sample forms	85
Annex E (informative)	— Inspection of welds in pressure coils exposed to direct radiant heat	119
Annex F (informative)	— Quality program for manufacturers of boilers, pressure vessels, piping systems, and fittings	120
Annex G (normative)	— Automotive propane vessel standards	133
Annex H (informative)	— Overpressure protection devices	137
Annex I (normative)	— Historical boilers	140

- Annex J (normative) — Requirements regarding the use of finite element analysis (FEA) to support a pressure equipment design submission 143
- Annex K (normative) — Requirements for pressure vessels designed and constructed using cold-stretch technology 147
- Annex L (informative) — Condition assessments for high-energy steam (HES) piping systems 153
- Annex M (informative) — Pneumatic testing of pressure vessels and piping systems 156
- Annex N (informative) — Quality program requirements for performing new construction inspection 162
- Annex O (informative) — Guidelines for a quality program for organizations that provide design examination services 165
- Annex P (informative) — Guidelines for audit programs 170
- Annex Q (informative) — Guidelines for the development and operation of a Pressure Equipment Integrity Management Program (IMP) 173
- Annex R (informative) — Synopsis of some exemptions in Canadian jurisdictions 181
- Annex S (informative) — Guidelines for registration documentation and inspections for new construction 198
- Annex T (informative) — Recommended safe practices where hydrogen is a constituent of the service fluid 200
- Annex U (informative) — Locations of CSA B51:19 clauses in CSA B51:24 204

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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