



CSA B52:23
National Standard of Canada



Mechanical refrigeration code



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Preface

This is the thirteenth edition of CSA B52, *Mechanical refrigeration code*. It supersedes the previous editions published in 2018, 2013, 2005, 1999, 1995, 1992, 1991, 1983, 1977, 1965, 1951, and 1939.

The thirteenth edition of this Standard provides the minimum requirements for the design, construction, installation, inspection, and maintenance of mechanical refrigeration systems, and is complemented by the practical implementation guidance CSA B52 Handbook, helping to minimize the risk of personal injury. This Standard applies to all refrigeration systems installed, whether in new or existing premises, to systems that undergo a substitution of refrigerant, and to parts that are replaced in or added to the system.

Changes to this edition include the following:

- a) Clause [1.2.3](#) d), which excludes air conditioning in private residences from the scope of this Standard, has been deleted.
- b) Clause [3](#) has new definitions for air circulation, connected spaces, effective dispersal volume, effective dispersal volume charge, independent circuit, mitigation actions, recycled refrigerants, refrigerant concentration limit, refrigeration detection system, refrigerant detector, releasable refrigerant charge, safety shutoff valve, system refrigerant charge, and ventilated enclosure.
- c) Clause [4](#) has been modified to integrate ASHRAE 34 tables and procedures, update A2L references, update requirements for flammable refrigerants in public hallways, and provide new A2L requirements for human comfort.
- d) Clause [5](#) has been revised to provide new exemptions for the registration exemption in Clause [5.2](#), marking and labelling requirements in Clause [5.11](#), addition of references to IIAR, new requirements for secondary coolant systems, and new requirements to address stress corrosion cracking.
- e) Clause [6](#) has updated requirements for the use of A2L group refrigerants in mechanical rooms.
- f) Clause [7](#) has updated restrictions on roof top access, and updated references regarding overpressure protection.
- g) Clause [8](#) has a new Clause [8.4.1](#) on asset management planning, and new references to ASHRAE 180 to remain in alignment with the CSA B52 Handbook.
- h) Clause [9](#) has been updated with a new Clause [9.3](#) for decommissioning.
- i) Annex [J](#) has been updated with new provisions for dry ice formation.
- j) Table [L.1](#) has been removed from Annex [L](#).
- k) A new Annex [M](#) for frequently used refrigerants has been introduced.
- l) A new Annex [N](#) provides requirements for effective dispersal volume calculations.
- m) A new Annex [O](#) provides requirements for releasable refrigerant charge calculations.
- n) A new Annex [P](#) provides refrigerant detection system requirements.
- o) A new Annex [Q](#) provides requirements for mechanical ventilation for refrigerant safety mitigation.

Note: Given the dependency of this Standard on refrigerant data from ASHRAE Standard 34, both standards are available bundled in the CSA Store and sold together.

This Standard contains recommendations only and does not have the force of law until adopted officially by a jurisdiction. The authorities having jurisdiction, including those that have adopted this Standard, should be consulted on the extent of such adoption, as the Standard could have been adopted with exemptions or with additional requirements.