

Inspection and Technical Services

BOILER AND PRESSURE VESSELS BULLETIN: ADOPTION OF CSA B52:23 MECHANICAL REFRIGERATION CODE

Feb 5, 2024
ITS 24-002

The 2023 edition of **CSA B52 Mechanical refrigeration code** was published in December 2023. The standard is intended to minimize the risk of personal injury by providing minimum requirements for the design, construction, installation, inspection, and maintenance of specified mechanical refrigeration systems and volatile direct refrigeration systems. This includes all refrigeration systems installed in new or existing premises, refrigeration systems that undergo a substitution of refrigerant, and parts of a refrigeration system that are replaced in, or added to, systems installed prior to its adoption.

This code has been adopted without any amendments.

CSA B52-23 Mechanical refrigeration code - Key Changes

Some of the key changes made in the 2023 are indicated below:

- a) Clause 1.2.3 d), which excludes air conditioning in private residences from the scope of CSA B52 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.

Everyone responsible for conducting Mechanical Refrigeration work is encouraged to familiarize themselves with the 2023 edition of this CSA B52 Mechanical Refrigeration Code, which can be purchased online from the CSA Group: <https://www.csagroup.org/store/product/2702258/>

If you have any questions or need more information about this code, please contact us at (204) 945-3373 or visit the CSA Website: <https://www.csagroup.org/>