



CSA Z317.1:21
National Standard of Canada



Special requirements for plumbing installations in health care facilities



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Preface

This is the sixth edition of CSA Z317.1, *Special requirements for plumbing installations in health care facilities*, one of a series of Standards related to health care facility engineering. It supersedes the previous editions, published in 2016, 2009, 1999, 1988, and 1978.

This Standard is intended to assist health care facilities (HCFs) to manage the potential risks associated with plumbing installation and maintenance.

The main changes from the previous edition are as follows:

- a) new requirements for developing a water management plan (Clause [4.1.4](#) and Annex [E](#));
- b) a new clause containing requirements on risk management (Clause [4.4](#));
- c) new guidance on water features (Clause [4.5.2.2](#));
- d) expanded requirements regarding unused portions of water systems (Clause [4.5.2.8](#));
- e) a new requirement to conduct a risk assessment on HCF shutdown and restart procedures (Clause [4.5.2.11](#));
- f) revised requirements for plumbing systems that are renovated or new additions (Clauses [4.7.2](#) and [4.7.3](#));
- g) new requirements for water storage tanks (Clauses [6.3.4.1](#) and [6.3.4.7](#));
- h) additional requirements for power supply and control systems of sump pumps (Clause [7.4.2.3](#));
- i) revised requirements for lavatory faucets (Clause [8.1.4](#));
- j) revised requirements for hands-free activation of water closets (Clause [8.2.7](#));
- k) additional requirements for backsplashes and side splashes (Clause [8.4.2.5.1](#));
- l) revised requirements for hoppers (Clause [8.4.5](#));
- m) revised requirements for utility sinks (Clause [8.4.6](#));
- n) revised requirements for cleaning and disinfection of special-purpose bathtubs (Clause [8.5.2.3](#));
and
- o) new requirements for trap guards (Clause [8.6.6](#)).

CSA Group acknowledges that the development of this Standard was made possible, in part, by the financial support of the governments of Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Québec, Saskatchewan, and Yukon, as administered by the Canadian Agency for Drugs and Technologies in Health (CADTH).

This Standard was prepared by the Subcommittee on Plumbing in Health Care Facilities, under the jurisdiction of the Technical Committee on Health Care Facilities and the Strategic Steering Committee on Health and Well-being, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*

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 - d) rationale for the change.

CSA Z317.1:21

Special requirements for plumbing installations in health care facilities

1 Scope

1.1 General

This Standard addresses the special requirements of plumbing systems pertinent to the design, construction, operation, and maintenance of health care facilities (HCFs). This Standard specifies requirements for the following in HCFs:

- a) water supply systems, including cold water systems and hot water systems;
- b) plumbing fixtures and fittings;
- c) drainage systems;
- d) risk management;
- e) monitoring and maintenance of water systems;
- f) infection control;
- g) catastrophic event planning;
- h) specialized water systems (e.g., reverse osmosis, deionized, distilled); and
- i) hydraulic fire protection systems.

Note: *Special requirements for plumbing systems apply in HCFs because of the need to protect occupants of the facility and the adjacent surroundings from*

- a) *infectious diseases;*
- b) *hazards created by improper temperatures, leaks, and inadequate drainage; and*
- c) *adverse conditions created by the failure or improper operation of plumbing systems.*

1.2 Supplemental requirements

This Standard supplements the relevant standards and other applicable requirements for plumbing systems, fixtures, and fittings in general building applications.

Notes:

- 1) *Relevant plumbing standards for plumbing fixtures and fittings can be found in the National Plumbing Code of Canada, adopted provincial/territorial plumbing codes, or both; local codes and bylaws; and other communications from authorities having jurisdiction.*
- 2) *Applicable requirements for plumbing systems are also contained in the National Building Code of Canada.*

1.3 Intended use

This Standard is not intended to preclude the use of design concepts and the adoption of construction, installation, operations, and maintenance procedures more stringent than those specified in this Standard and in the documents listed in Clause [2](#).

1.4 Exclusions

This Standard does not apply to medical gas systems.

Note: *See CSA Z7396.1 for pipelines for medical gases, medical vacuum, medical support gases, and anaesthetic gas scavenging systems.*