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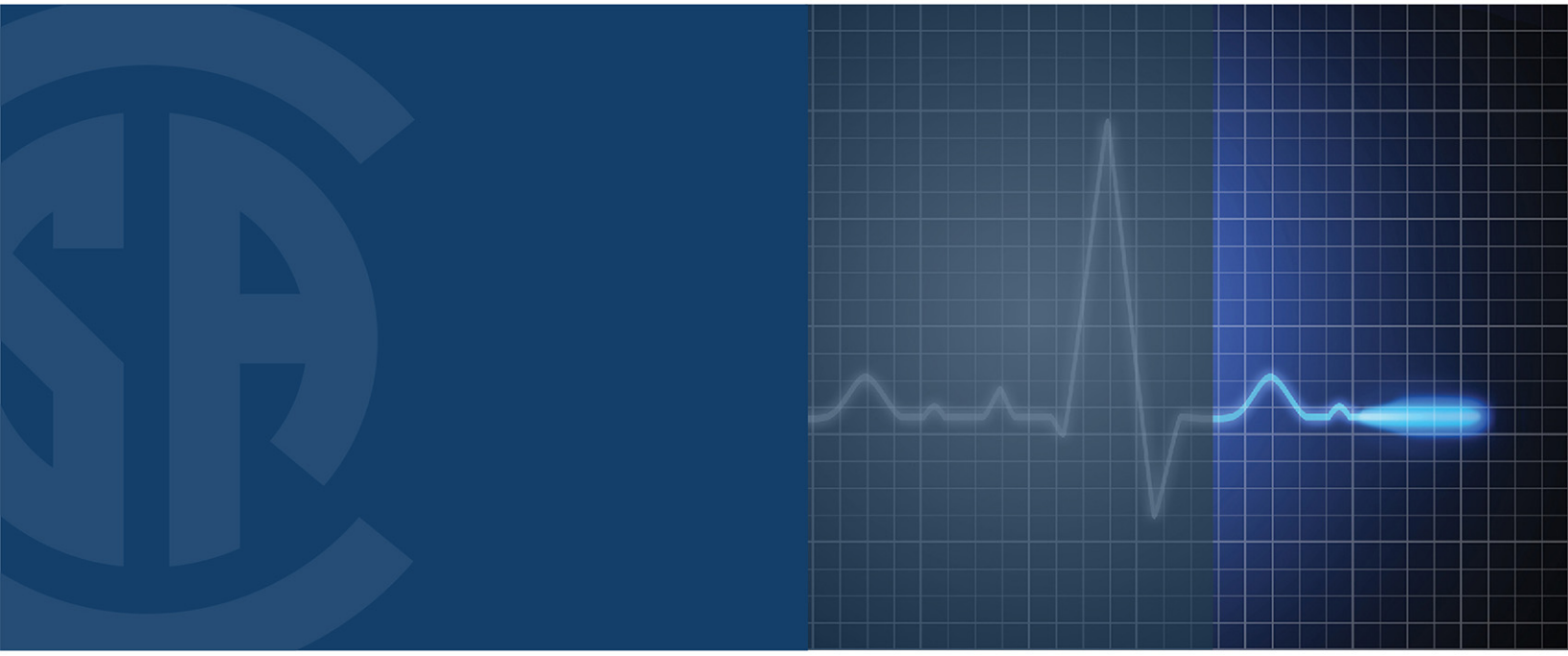
CSA Z32:21
National Standard of Canada

Electrical safety and essential electrical systems in health care facilities



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Revision History

CSA Z32:21, Electrical safety and essential electrical systems in health care facilities

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Preface

This is the fifth edition of CSA Z32, *Electrical safety and essential electrical systems in health care facilities*. It supersedes the previous editions, published in 2015, 2009, 2004, and 1999, and is harmonized with CSA C22.1, *Canadian Electrical Code, Part I*, and CSA C282, *Emergency electrical power supply for buildings*.

This edition features several important revisions. Table 6 has been updated to be harmonized with CSA Z8000,*Canadian health care facilities*, and similar health care facility standards. An informative Annex has been added to suggest a sequence of testing when performing the tests within this Standard. The test methods in Clause 5 have been updated.

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 Electrical Safety and Essential Electrical Systems in Health Care Facilities, under the jurisdiction of the Technical Committee on Application of Electricity in Health Care 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.

Notes:

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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   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

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   d) *rationale for the change.*

CSA Z32:21
Electrical safety and essential electrical systems in health care facilities

1 Scope

1.1 General

1.1.1 Application

This Standard deals with the following subjects:

a) electrical safety associated with health care provision; and
b) essential electrical systems for health care facilities.

Note: *See Clause 3 for the definition of "health care facility".*

1.1.2 Exclusions

1.1.2.1 Veterinary facilities

This Standard is not intended to apply to veterinary facilities, although its electrical safety principles could prove useful in the design, construction, and operation of such facilities.

1.1.2.2 Uninterruptible power systems

Uninterruptible power systems (UPS), which may be used for specific critical applications, are not covered by this Standard.

Note: *If a UPS is used within a health care facility, refer to Annex K for more information.*

1.1.3 Relationship to the *Canadian Electrical Code*

Provisions of this Standard are supplementary to the installation requirements specified in Sections 24 and 52 of CSA C22.1, *Canadian Electrical Code, Part I*, and require compliance with *Canadian Electrical Code, Part II* standards.

1.2 Electrical safety

1.2.1 Areas

This Standard applies to

a) patient care areas of Class A, Class B, and Class C health care facilities; and
b) areas outside health care facilities that are intended for patient diagnosis, treatment, or care involving intentional electrical contact of any kind between patients and medical electrical equipment.

1.2.2 Electrical equipment

This Standard applies to

a) medical electrical equipment;
b) health-care-facility-owned non-medical electrical equipment;
c) patient-owned electrical devices; and