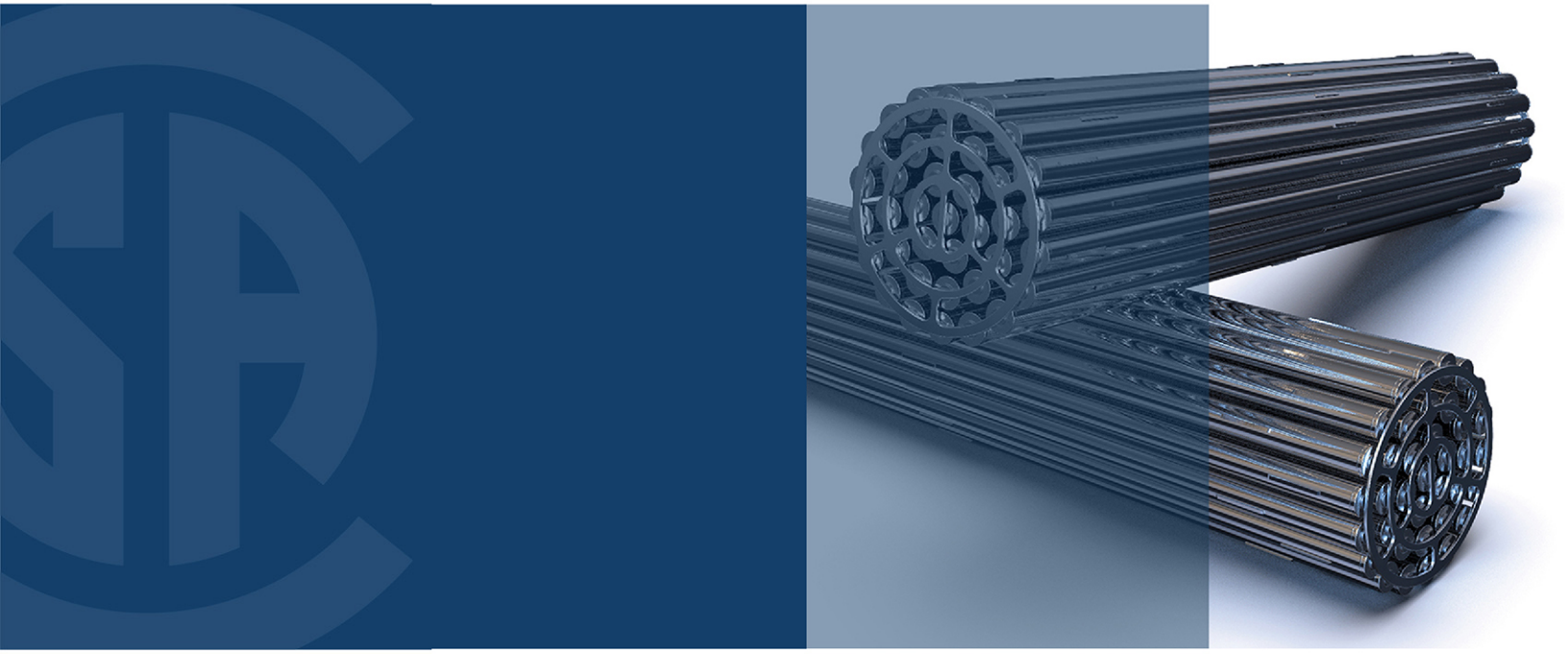
CSA N293:23

Fire protection for nuclear power plants



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Preface

This is the fifth edition of CSA N293, *Fire protection for nuclear power plants*. It supersedes the previous editions published in 2012, 2007, 1995, and 1987.

This edition of CSA N293 includes changes arising from new knowledge, operating experience, and comments from users of the Standard. It also incorporates the information from CSA N293S1 on small modular reactors.

The Standard has been restructured from its previous edition to allow for improved usability, accessibility, and removal of duplicated requirements. An asterisk (*) as the first character of a clause title or at the beginning of a paragraph indicates that there is guidance or rationale related to that item in Annex A.

Users of this Standard are reminded that the site selection, design, manufacture, construction, installation, commissioning, operation, and decommissioning of nuclear facilities in Canada are subject to the *Nuclear Safety and Control Act* and Regulations. The Canadian Nuclear Safety Commission might impose requirements additional to those specified in this Standard.

The CSA N-Series Standards provide an interlinked set of requirements for the management of nuclear facilities and activities. CSA N286 provides overall direction to management to develop and implement sound management practices and controls, while the other CSA Group nuclear Standards provide technical requirements and guidance that support the management system. This Standard works in harmony with CSA N286 and does not duplicate the generic requirements of CSA N286; however, it may provide more specific direction for those requirements.

This Standard was prepared by the New Edition Task Force, under the jurisdiction of the Technical Committee on Fire Protection for Nuclear Power Plants and the Strategic Steering Committee on Nuclear Standards, and has been formally approved by the Technical Committee.

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.*
4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*
   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are available on the* Current Standards Activities *page at standardsactivities.csa.ca.*
5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
   a) *Standard designation (number);*

b) *relevant clause, table, and/or figure number;*
c) *wording of the proposed change; and*
d) *rationale for the change.*

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Fire protection for nuclear power plants

1 Scope

1.1 *Inclusions

This Standard provides the minimum fire protection requirements for the design, construction, commissioning, operation, and decommissioning of nuclear power plants (NPPs) and small modular reactors (SMRs), including structures, systems, and components (SSCs) that directly support the NPP/SMR and the protected area.

Notes:

1) *Where requirements do not state specific applicability to NPPs or SMRs, the requirements apply to both types of nuclear facilities.*
2) *When a clause in this Standard includes a subsection for NPPs and a subsection for SMRs, the requirements for SMRs are separate from the requirements for all other NPPs. In all other cases throughout this Standard, the term "NPP" is inclusive of SMRs.*

1.2 *Exclusions

External events, such as an aircraft crash or terrorist attack, are outside the scope of this Standard.

1.3 Terminology

In this Standard, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; "should" is used to express a recommendation or that which is advised but not required; and "may" is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

1.4 Units of measurement

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below.

Note: *In cases where the editions listed below are amended, replaced by new editions, or superseded by another Standard during the life of this referencing Standard, it is the responsibility of the users of this Standard to investigate the possibility of applying those amendments, new editions, or superseding Standards (see Clause 6 regarding alternatives and performance-based approaches).*

