CSA N393:22

Fire protection for facilities that process, handle, or store nuclear substances

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Preface

This is the second edition of CSA N393, *Fire protection for facilities that process, handle, or store nuclear substances*. It supersedes the previous edition published in 2013.

The major changes to this edition include the following:

a) updated the list of reference publications to include any newly added references and to update the referenced editions;
b) updated the list of definitions to add clarification and to align with other CSA Standards and REGDOC-3.6;
c) revised Clause 5 to improve clarity for objectives and criteria;
d) revised Clause 10.4 to improve clarity of training requirements;
e) reordered and updated Clause 11 to improve clarity of the requirements; and
f) revised Clause 12 to remove duplicate requirements and update terminologies to align with CSA N294.

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. Authorities having jurisdiction may impose requirements additional to those specified in this Standard. In Canada, this Standard will come into force on the date specified by the nuclear facility licence or licence condition handbook. For nuclear facilities licensed prior to the publication of this Standard, the design and construction requirements of this Standard will not be retroactively applied to existing structures, systems, and components, but the operational requirements (e.g., general requirements, concepts, programs, operations, analyses, emergency response) of this Standard will apply. Fire protection concepts and performance levels are detailed in Clause 5, and more detailed requirements for achieving these concepts and performance are provided in Clauses 6 to 12. In addition, where noted, explanatory material has been added in Annex A to clarify the content.

The CSA N-Series Standards provide an interlinked set of requirements for the management of nuclear facilities and activities. CSA N286 provides overall direction for management in developing and implementing 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 Technical Committee on Fire Protection for Facilities that Process, Handle, or Store Nuclear Material, under the jurisdiction of 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 facilities that process, handle, or store nuclear substances

1 Scope

1.1
This Standard provides the minimum fire protection requirements for the design, construction, commissioning, operation, and decommissioning of facilities which process, handle, or store nuclear substances, including structures, systems and components, and other hazardous substances that directly relate to the nuclear substances being regulated.

1.2
This Standard applies to all nuclear facilities where it is referenced as a licence condition or included in the licence condition handbook.

1.3
This Standard does not cover fire protection for nuclear power plants, which is covered by CSA N293.

Note: *See Annex A for further clarification on what facilities are covered under this Standard.*

1.4
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.

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, the users of this Standard may investigate the possibility of applying those amendments, new editions, or superseding standards (refer to Clause 4.4 regarding alternatives and performance-based approaches).*