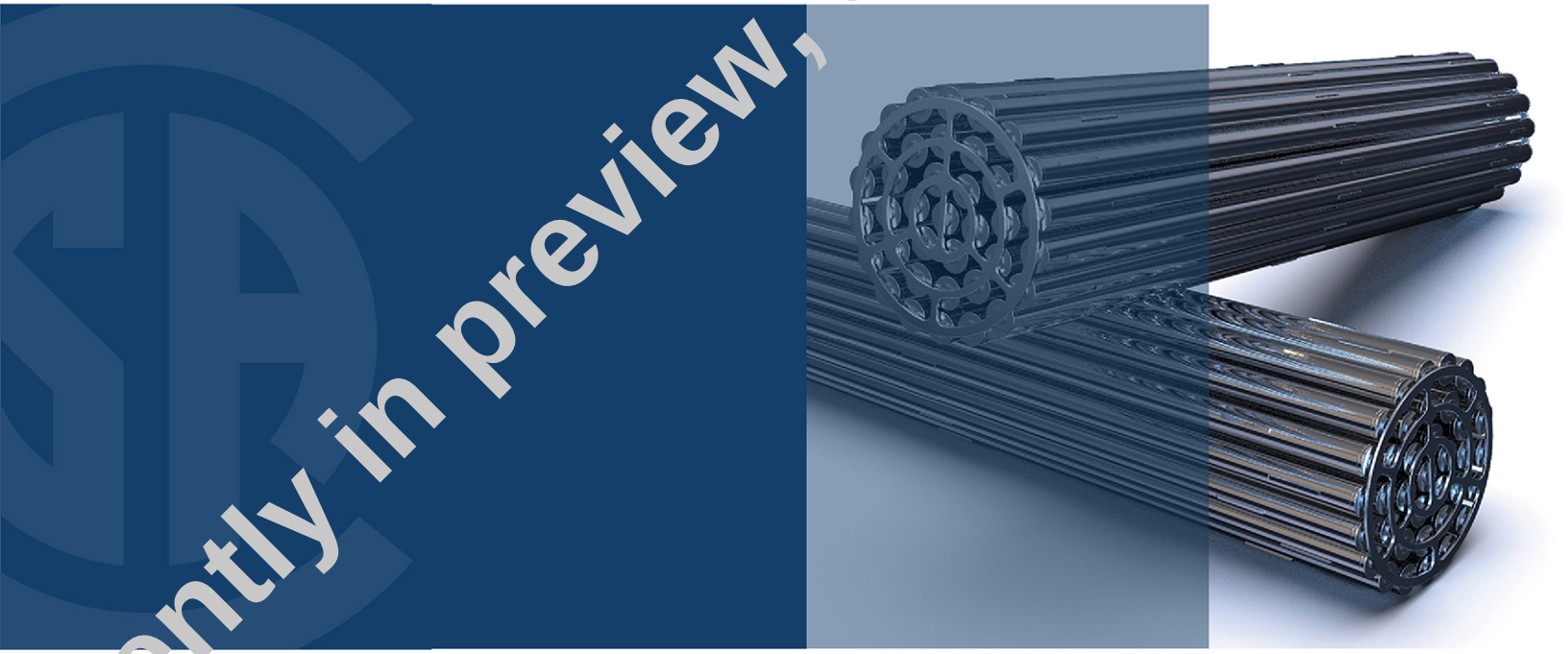
CSA N287.1:24

# General requirements for concrete containment structures for nuclear power plants



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# *General requirements for concrete containment structures for nuclear power plants*



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# *Preface*

This is the fifth edition of CSA N287.1, *General requirements for concrete containment structures for nuclear power plants.* It supersedes the previous editions, published in 2014, 1993, 1982, and 1977.

The major changes to this edition include the following:
- terminologies have been clarified by modifying the definitions to align with other CSA nuclear standards;
- alignment with other CSA nuclear standards has been improved;
- personnel qualification requirements have been clarified;
- further guidance on trending has been added;
- documentation requirements have been clarified;
- interface with CSA N286, which expanded from quality assurance to management of all business objectives including quality, has been improved; and
- accessibility has been improved.

This Standard provides general requirements to ensure that the design, construction, and testing of concrete containment structures will meet a quality and standard commensurate with the safety principles necessary to comply with the Canadian nuclear safety philosophy.

This Standard reflects Canadian regulatory requirements, the operating experience of the Canadian nuclear industry, and international practices. The Standard was originally written for CANDU® reactors but can be used for other concrete containment structures as applicable.
**Note:** *CANDU (CANada Deuterium Uranium) is a registered trademark of Atomic Energy of Canada Limited (AECL).*

The CSA N-series of Standards provides 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 might provide more specific direction for those requirements.

This Standard is part of the CSA N287 series of Standards, which provides the requirements for concrete containment structures for nuclear power plants. These Standards were initiated in response to a recognition by the utilities and industries concerned with nuclear power plant structures in Canada of a need for consistent standards for the design, construction, and testing of concrete containment structures for nuclear power plants.

The CSA N287 series of Standards consists of eight Standards. The objectives of each Standard are summarized as follows:
- CSA N287.1, *General requirements for concrete containment structures for nuclear power plants,* specifies general requirements for the design, construction, testing, commissioning, and in-service examination and testing of concrete containment structures for nuclear power plants and is directed to the owners/operating organizations, designers, manufacturers, fabricators, and constructors;
- CSA N287.2, *Material requirements for concrete containment structures for nuclear power plants,* specifies requirements for materials used for concrete containment structures;
- CSA N287.3, *Design requirements for concrete containment structures for nuclear power plants,* specifies requirements for the design of concrete containment structures;