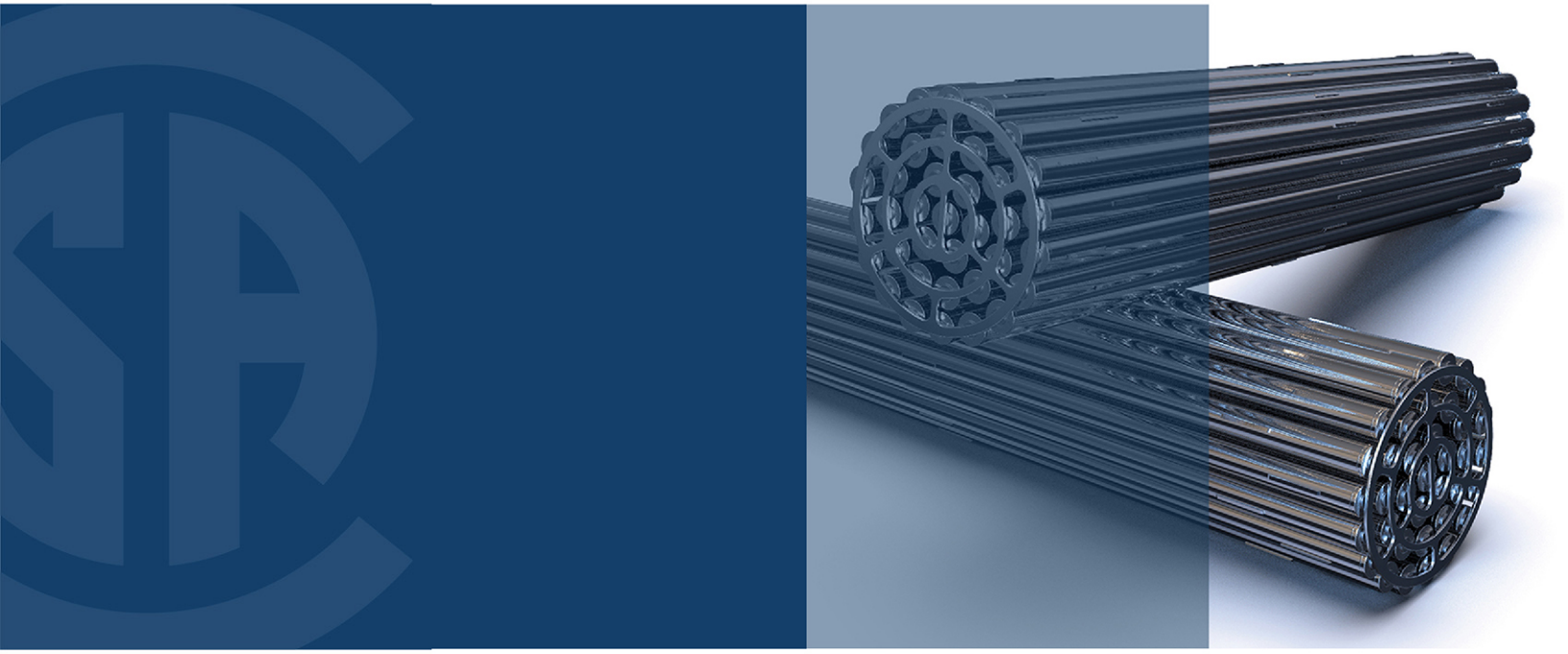
CSA N287COM:23

Commentary on the CSA N287 series of Standards



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Preface

This is the first edition of CSA N287COM, *Commentary on the N287 series of Standards*.

It reflects Canadian regulatory requirements, operating experience (OPEX) of the Canadian nuclear industry, and international practices. The CSA N287 Standards were originally written for CANDU® reactors but can be used for other concrete containment structures as applicable. This Commentary is directed only toward the requirements in the CSA N287 series of Standards published by 2022. The scope of this edition provides commentary on areas identified by users of the CSA N287 series of Standards which require additional clarity. This Commentary does not provide formal interpretations of the CSA N287 series of Standards. It has been written in informative (non-mandatory) language and is not intended to be adopted by users of the CSA N287 series of Standards or authorities having jurisdiction (AHJs) as additional requirements.

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The purpose of this Commentary is to provide background information concerning certain clauses and requirements in the CSA N287 series of Standards. This information can help the user clarify the context of the requirements in the CSA N287 series of Standards.

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 (NPPs) and is directed to the owners, 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;
- CSA N287.4, *Construction, fabrication, and installation requirements for concrete containment structures for nuclear power plants*, specifies construction, fabrication, and installation requirements for concrete containment structures for NPPs;
- CSA N287.5, *Examination and testing requirements for concrete containment structures for nuclear power plants*, specifies examination and testing requirements that apply to the work of any organization participating in the construction, fabrication, or installation of concrete containment structures for NPPs;
- CSA N287.6, *Pre-operational proof and leakage rate testing requirements for concrete containment structures for nuclear power plants*, specifies requirements for proof by demonstration, before first criticality, that the design and construction of concrete containment structures are satisfactory with respect to quality and performance as demonstrated by achieving the specified requirements of CSA N287.6, including commissioning leakage rate target;
- CSA N287.7, *In-service examination and testing requirements for concrete containment structures for nuclear power plants*, specifies uniform requirements whereby, through systematic and periodic examination, the structural and leak-tight integrity of concrete containment structures can be assessed as demonstrated by achieving the specified requirements of CSA N287.7, including the operational leakage rate target; and
- CSA N287.8, *Aging management for concrete containment structures for nuclear power plants*, provides aging management (AM) requirements for concrete containment structures for NPPs and is directed to the owners/operators, designers, manufacturers, fabricators, and constructors.

