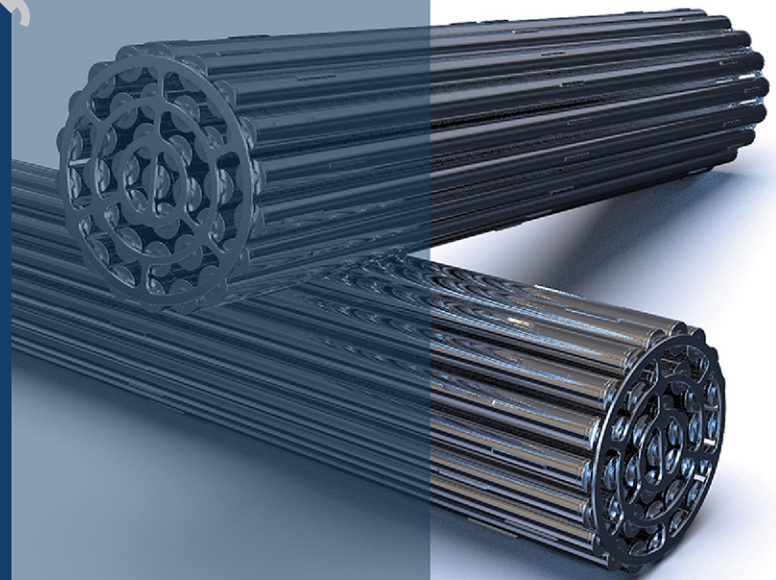




General requirements for pressure-retaining systems and components in CANDU nuclear power plants/Material Standards for reactor components for CANDU nuclear power plants



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Preface

This is the fourth edition of CSA N285.0/N285.6 Series, *General requirements for pressure-retaining systems and components in CANDU nuclear power plants/Material Standards for reactor components for CANDU nuclear power plants*. It supersedes the previous editions of the CSA N285.0/N285.6 Series published in 2017, 2012, and 2008, the previous editions of CSA N285.0 published in 2006, 1995, 1991, and 1981, and the previous editions of the CSA N285.6 Series published in 2005 and 1988.

The major changes to this edition include the following:

- updated references, definitions and terminology, documentation, and reporting requirements;
- clarified the use of “Class Exempt”;
- clarified that requirements for piping system design reports in Clause [7.4.3](#) are in addition to the Clause [7.4.2](#) requirements;
- clarified content of flowsheets in Clause [7.3.2](#);
- clarified in Clause [5.2.4.1.3](#) that effective dose is applicable to the NPP worker;
- clarified that exemptions from registration for piping systems do not apply to boilers and pressure vessels installed within these systems;
- new Annex [L](#) added to outline qualifications and duties of AIAs at CANDU NPPs;
- recognition of National Board (NB)-accredited quality program (NR) for repairs and replacements;
- clarified requirements for supports registration in Clause [6.1.4](#);
- addition of testing program for Class 1, 2, 3 overprotection devices not covered by Clause [13.3.1](#);
- revised Clause [7.6.5.3](#) to clarify permissibility of spare keys for key interlocks;
- new Clause [7.1.10](#) for treatment of containment proof test;
- updated requirements for design registration of piping subassemblies;
- removed the need for a statutory declaration from documentation required to register a pump; and
- added an exemption from pressure testing for portion(s) of piping systems and lines open to the atmosphere.

CSA N285.0 provides general requirements for pressure-retaining systems, components, and supports in CANDU® nuclear power plants.

Note: CANDU® (CANada Deuterium Uranium) is a registered trademark of Atomic Energy of Canada Ltd., used under exclusive license by Candu Energy Inc., a Member of the SNC-Lavalin Group.

The CSA N285 series of Standards specifies requirements applicable to nuclear power plants in Canada and references the applicable requirements of the ASME *Boiler and Pressure Vessel Code (BPVC)*. The specific objectives of these Standards are as follows:

- to establish technical requirements for pressure boundary items of CANDU power reactors, in a format that regulatory authorities can reference;
- to establish requirements for each class of system, component, or support, consistent with the *Nuclear Safety and Control Act (Act)* and its Regulations;
- to reference applicable requirements of the ASME *BPVC* where they are appropriate to CANDU power reactors;
- to specify rules and material requirements for the design, fabrication, installation, quality assurance, and inspection of those pressure-retaining components and supports for which the ASME *BPVC* does not specify requirements; and
- to establish rules for the periodic inspection of pressure-retaining components in CANDU nuclear power plants.