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**Title:**
Overview of Updates in Recent Edition of CSA N289.1

**Abstract:**

Overview of Updates in Recent Edition of CSA N289.1

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**Abstract**

CSA N289.1, *General Requirements for Seismic Design & Qualification of CANDU Nuclear Power Plants,* is the principal standard in a series of five (5) CSA that covers the general requirements for seismic hazard evaluation, seismic design, qualification, evaluation, and testing and monitoring. The fourth edition of the Standard, CSA N289.1:23 has been published and reflects the industry's feedback while clarifying the various approaches in seismic design and qualification of SSCs.

This paper will summarise the main updates in the new edition and their expected impacts. The main updates include the following:

- Clarifying and expanding the guidelines for seismic qualification by similarity and earthquake experience-based approaches
- Adding application of experience-based approaches as a method of seismic qualification
- Clarifying the set of key variables of the fragility analysis method
- Revising the aging management aspect pertaining to maintaining seismic qualification
- Providing new provisions for addressing post-earthquake planning and response.

**Keywords:**
N289, N289.1, probabilistic seismic hazard assessment, seismic design, seismic qualification,

seismic evaluation, seismic testing, seismic monitoring, experience-based, qualification by similarity, SMR, Small Modular Reactors

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