

PROFESSIONAL DEVELOPMENT COURSE

CSA N285 (SERIES) GENERAL REQUIREMENTS FOR PRESSURE RETAINING SYSTEMS & COMPONENTS IN CANDU NUCLEAR POWER PLANTS

OBJECTIVE:

This course will introduce participants to the concepts and practices that form the basis of the N285 approach to maintaining the integrity of the Pressure Boundary. Participants will have the opportunity to discuss the basic elements in order to assist them in their understanding of the concepts. The course will review the detailed requirements for Code Class, Registration of Design, and the Documentation Requirements, in particular, the documents associated with the design and manufacture of Pressure Boundary products.

The course will explore the importance of the N285 Series to the Regulator and the close relationship between CSA Standards and the ASME Boiler and Pressure Vessel Code. It will present an overview of concepts associated with the requirements for spares, replacements, modifications and periodic inspection. However, in-depth coverage of the requirements for these areas is covered in a subsequent course due to the detailed and complex nature of these subjects which require considerably more time to discuss.

CONTENTS: A two-day course consisting of the following:

DAY 1:

- Safety & Pressure Boundary Integrity
- Regulatory Requirements
- Scope of CSA Pressure Boundary Standard N285.0
- Other N285 Standards
- Fundamental Concepts: Control of Activities,
 Third Party Inspection and Compliance
- ASME SEC III & the N285 Series
- Classification
- Design Registration

DAY 2:

- Plant Requirements
- System Requirements
- Component Requirements
- Code Responsibilities
- Documentation Requirements
- Specific CANDU Components
- Specific CANDU Containment Requirements
- Periodic Inspection (overview)
- Spare, Replacements & Modifications (overview)
- Checkout

WHO SHOULD ATTEND?

The N285 Series, in particular the upper tier standard CSA N285.0, impacts on the many disciplines in the field of Pressure Boundary. This course will be a valuable tool for the individuals in these disciplines by aiding in their understanding of the requirements that must be met. Personnel working in the disciplines of design, inspection, fabrication, procurement, quality assurance, operation and maintenance will find this course beneficial in that it will help them to better understand their roles and responsibilities. Attendance at this course is considered as meeting part of the requirement for updating their qualifications in accordance with Appendix XXIII.

EXPECTATIONS:

Course participants with adequate experience will have attained the following information at the end of the course:

- 1. An understanding of the importance of the CSA N285 Series of Standards to the Regulator.
- 2. An understanding of the fundamental concepts underlying the Codes and Standards for Pressure Boundary in a Nuclear Power Plant and how they are embodied in the N285 Series.
- 3. A basic knowledge of the documentation packages required for the approval of Component Classification, Registration of Design and Fabrication compliance for the CANDU Nuclear Power Plant
- 4. An understanding of the relationship between N285 and the ASME Code, Section III, Div.1, and how the Canadian requirements are integrated into the system.