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PROFESSIONAL DEVELOPMENT COURSE

INTRODUCTION TO JURISDICTIONAL REQUIREMENTS FOR PRESSURE BOUNDARIES

LECTURER: Mr. Richard W. Barnes, P. Eng.
DATE: November 28, 2014
LOCATION: ANRIC Enterprises Inc., 701 Evans Ave., Suite 202, Toronto
FEE: **Register before November 14, 2014: $495.00** (pp/plus HST)
Registrations received after November 14, 2014: $595.00 (pp/plus HST)

OBJECTIVE:
This course is a basic course designed to introduce participants to the Canadian Federal Laws and Regulations as they apply to the Pressure Boundary of Nuclear Power Plants. It provides an understanding of these laws and their relationship to the concept and role of Code Classification. The course covers the structure and content of the Canadian Standards and their relationship to the ASME Codes on Pressure Boundary.

CONTENTS: A one day course consisting of the following:

- Why Codes and Standards are required in the nuclear industry
- The Nuclear Safety Control Act and the role of the Canadian Nuclear Safety Commission (CNSC)
- Third party inspection and the role of the Technical Standards and Safety Authority (TSSA)
- The CSA N285 Series of Standards on the CANDU Pressure Boundary
- Relationship between Canadian Standards for Nuclear Power Plants and the ASME Codes and Standards.
- Basic structure of the ASME Code on Nuclear Power, Section III
- Basic structure of other Pressure Boundary Standards, CSA B51, ASME Section VIII and ASME B31.1
- Role of Quality Assurance and the programs associated with Pressure Boundary components

WHO SHOULD ATTEND?
This course will be of interest to personnel in the many roles and disciplines of the Nuclear Power Plant industry. It is particularly useful as introductory training for personnel at most levels who are entering the nuclear industry. This course is very useful for people requiring an introductory understanding of the relationships between the Codes and Standards and the legal requirements to meet the needs of their position. Personnel who interact in various ways with the Pressure Boundary of a CANDU Nuclear Power Plant and who require an understanding of the importance of the different Code classes have found this course to be very useful. The course has been offered many times at the Canadian Nuclear Utilities to introduce participants to the above concepts.

EXPECTATION:
At the completion of this training session the participants will have attained the skills to:

1. Have a working knowledge of the Codes and Standards associated with the construction, installation and operation of Pressure Boundary systems and items for use at the Nuclear Power Plant.
2. Define and understand the term Pressure Boundary
3. Define the role of the Regulator and the Authorized Nuclear Inspector
4. Define the term Department as it is used in the CSA Standard
5. Identify the key documents required by the Department for the purpose of Design
6. Explain how the various books of ASME Section III are complied
7. Identify and explain the relationship of the various Codes and Standards used in CANDU Pressure Boundary application (ASME and CSA).

LECTURER:
Mr. Richard W. Barnes is the Principle Engineer at ANRIC Enterprises Inc. and has been actively involved for over 30 years in the development of the ASME and CSA Codes and Standards associated with Pressure Boundary for both nuclear and non-nuclear power plants. Mr. Barnes leads the team at ANRIC Enterprises Inc that offers technical assistance for companies registering Pressure Boundary products, and provides expert consultation on the application of the various pressure boundary codes. The ANRIC team also develops and

delivers training on both the CSA and ASME Codes and Standards for delivery on-site at the ANRIC Learning Centre and off-site at the clients' premises. Mr. Barnes sits on various code committees responsible for the development of Codes and Standards. He is the past-chair and member of the ASME Standard Committee of the BPV III, which is responsible for the development of Section III of the ASME BPV Code; past Vice-Chair and member of N285A Technical Committee on CANDU Nuclear Power Plant Systems and Components, member of the B51Technical Committee on Boilers and Pressure Vessels, and member of N286 Technical Committee on Overall Quality Assurance for Nuclear Power Plants of the CSA Standards Committee; and member of ASME B16 Standards Committee of Standardization of Valves, Flanges, Fittings and Gaskets and member of the Subcommittee responsible for development of the B16:34 Standard . Mr. Barnes has received the ASME Dedicated Service Award and the highest ASME Nuclear award, the Bernard F. Langer Nuclear Codes and Standards Award in recognition for his contributions to the nuclear industry. In 2007, was elected to the ASME Grade of Fellow. In 2009, Mr. Barnes received the CNA Outstanding Contribution Award and in 2011 the CSA Award of Merit.

IMPORTANT INFORMATION:

PAYMENT: For registrations received before November 14, 2014, full payment is due by November 14, 2014. For registrations received after November 14, 2014, full payment is due upon registration. Payment can be made via credit card (VISA, MasterCard or American Express) or cheque. **PLEASE NOTE:** Payment is non-refundable after November 14, 2014.

CANCELLATION POLICY: Cancellation must be received in writing 7 days prior to course start date. If cancellations are made after that date, the cancellation fee will be 50% of the course cost. You may send a substitute. Notification of a substitute must be received at least 48 hours prior to the commencement of the course or a cancellation fee will be charged. **PLEASE NOTE:** The cancellation fee can be discounted towards any future course taken at the ANRIC Learning Centre.

ACCOMMODATION: The Stay Inn, 560 Evans Ave (2 minute drive to 701 Evans Ave), has provided a quote of $94.00 per night for 1 bed and $104.00 for 2 beds, including a continental breakfast. The Stay Inn can be contacted at info@stayinn.ca or 416-259-7899/1-888-445-4473 for more information. Please refer to ANRIC Enterprises Inc. when speaking with reservations. This is a small hotel, so it is advisable to book early.

FOOD AND BEVERAGE: At the start of the day juice, fruit, pastries, coffee and tea will be provided before the course. Coffee and Tea will be provided at mid-morning break, including pop in the afternoon and lunch will be provided. Please indicate when you are enrolling for the course if you have any specific food requirements. Every effort will be made to accommodate your needs in this area.

COURSE TIMES: Registration begins at 8:00 a.m. The course will begin at 8:30 a.m. and conclude at 4:30 p.m.

DRESS: Please dress so that you will be comfortable. It is prudent to dress light and bring a light jacket in case you need it during the course. The tolerance to temperature varies for people and sometimes room temperature acceptable to the majority may not be right for an individual.

PARKING: There is parking available for a fee of $5.00 per day. There is parking at 701 and 703 Evans Ave.

ANRIC Enterprises Inc. specializes in courses of caliber to industry by providing lecturers who have recognized expertise and who are involved with the development and application of Codes and Standards.

ANRIC Enterprises Inc. reserves the right to cancel any course and/or change lecturers.