

PROFESSIONAL DEVELOPMENT COURSE

ASME SECTION III QA REQUIREMENTS: NCA-4000/NQA-1

LECTURER: Mr. Richard W. Barnes, P. Eng.

LOCATION: ANRIC Enterprises Inc., 701 Evans Ave., Suite 202, Toronto FEE: Register four weeks before and pay at time of registration:

\$1,495.00 (pp/plus HST)

Registrations received within four weeks: \$1,645.00 (pp/plus HST)

OBJECTIVE:

This two-day course provides an in-depth review of the Quality Assurance (QA) requirements of Section III of the ASME Boiler and Pressure Vessel Code, for the design and manufacture of components used in the Pressure Boundary of Nuclear Power Plants. It will review and discuss the requirements for planning, managing and conducting QA programs for controlling the activities performed under the jurisdiction of Section III. It will examine the rules governing the evaluation of such programs prior to the issuance of Certificates of Authorization for construction of Pressure Boundary components.

Section III has adopted the NQA-1 Standard with some additions and caveats as appropriate. The course will provide an understanding of the basic requirements of the ASME NQA-1a - 2009 Standard referenced in Section III, including the modification to these requirements in NCA-4000 as they apply to N-type Certificate holders.

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

DAY 1:

- BACKGROUND AND INTRODUCTION TO NCA-4000, including scope and applicability, definitions, establishment and implementation and the NQA-1 structure
- THE QUALITY ASSURANCE ORGANIZATION and the QUALITY ASSURANCE PROGRAM, including the Quality Assurance Manual.
- DESIGN CONTROL, INSTRUCTIONS, PROCEDURES, and DOCUMENT CONTROL.
- RELATIONSHIP BETWEEN ASME AND CANADIAN QUALITY STANDARDS AND THEIR APPLICATION -N285, N286, 10 CFR 50 Appendix B, and ASME.

DAY 2:

- PROCUREMENT DOCUMENT CONTROL, CONTROL OF PURCHASED ITEMS AND SERVICES.
- IDENTIFICATION AND CONTROL OF ITEMS, CONTROL OF SPECIAL PROCESSES, INSPECTIONS, TEST CONTROL, CONTROL OF MEASURING & TEST EQUIPMENT, HANDLING, STORAGE & SHIPPING, INSPECTION, TEST & OPERATING STATUS
- CONTROL OF NON-CONFORMING ITEMS, CORRECTIVE ACTIONS, QA RECORDS, AUDITS.
- NCA-3800, NCA-3900, INQUIRIES, including a question and answer period.

WHO SHOULD ATTEND?

This course will provide excellent training for persons whose work activity requires them to apply these Codes and Standards. It will enhance their understanding of why QA is fundamental to the nuclear program. The course will be useful to the many disciplines that are required to understand and/or implement Code QA requirements. These include design, inspection, purchasing, manufacturing, regulation, operations and maintenance.

EXPECTATIONS:

At the end of the course participants should understand the approach to quality adopted by Section III, as well as the relationship between the elements of the quality program used in Section III of the ASME Boiler and Pressure Vessel Code.



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LECTURERS:

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: Full payment is due at time of registration. Payment can be made via credit card (VISA, MasterCard or American Express), cheque or purchase order. PLEASE NOTE: Payment is non-refundable.

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 \$99.00 per night for 1 bed and \$109.00 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 calibre 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.