



PROFESSIONAL DEVELOPMENT COURSE

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CSA N299 STANDARDS TRAINING WORKSHOP

LECTURER: Mr. Richard W. Barnes, P. Eng.
DATE: August 8-10, 2022: On-line two (2) half-day segments plus one (1) full day
LOCATION: ON-LINE Delivery through ANRIC Enterprises Inc.
FEE: Register & PAY three (3) weeks before the start: \$1,950.00 (pp/plus HST). Register within three (3) weeks of the start: \$1,860.00 (pp/plus HST). Group pricing available; please contact <training@anric.com> or Call (416) 253-9459.
**** Payment can be made by Credit Card or Purchase Order.**

Canadian Utilities evaluate the quality assurance programs of potential manufacturers and suppliers to their Nuclear Power Plants using the requirements of the CSA N299 Series of Quality Assurance Standards. With the continued refurbishment and maintenance of the plants in Canada, manufacturers and suppliers who want to be part of this activity will most times be required to meet these requirements. This course provides an in-depth review of the approach to selecting an appropriate quality assurance program for their items and services. Using the knowledge gained from this program, manufacturers and suppliers will be able to effectively manage their existing programs to identify the differences between the quality levels and select the appropriate level for sub suppliers.

OBJECTIVE:

This course will lead the participants, through active discussion and workshops, to a clear understanding of the differences between the N299 standards and the selection processes. Practical examples are workshopped in a group environment to help participants determine which N299 program would apply to sub- suppliers of materials and components using the prescribed method in the CSA standard N299.

CONTENTS: Live online delivery – **This course** will be delivered over two (2) half-day segments plus one (1) full day.

COURSE CONTENT	COURSE CONTENT
<p>SUBJECTS</p> <ul style="list-style-type: none"> • Introduction • Terminal Objectives • Enabling Objectives • What is Quality Assurance? • Review and Scope of the four Standards (including Appendix A) • Review and Structure/Organization of the Material in the Standards • What are the regulatory requirements governing the use of the Standard (License, N286, N285) • Brief comparison of N299 Standards with the Z299 Standards 	<p>WORKSHOPS</p> <ol style="list-style-type: none"> 1. Review and discussion of the Requirements in Clause 4 2. Review and discussion of the Requirements in Clauses 5.1 - 5.4 3. Review and discussion of the Requirements in Clauses 5.5 - 5.21 <p>SUBJECTS</p> <ul style="list-style-type: none"> • Review of Annex A requirements and application <p>WORKSHOPS</p> <ol style="list-style-type: none"> 1. Application of Annex A Case Study No: 1 2. Application of Annex A Case Study No: 2 <ul style="list-style-type: none"> • Review of Annexes B, C, D and E • Checkout

WHO SHOULD ATTEND?

Persons requiring an in-depth knowledge of the N299 series of QA standards and how to apply them. This workshop will be useful to the many disciplines involved in the manufacturing and utility industries supporting the refurbishment projects. The personnel in these disciplines include managers, supervisors, designers, inspectors, QA officers, manufacturers, and regulators.

EXPECTATIONS:

Course participants will be expected to actively participate in the discussions with both questions and comments. These discussions are expected to allow the participants to understand the details of the N299 QA standards as well as preparing them to be able to select the appropriate N299 standard for any product. Participants are expected to engage in guided workshop activities and present rationale to other groups.

LECTURER:

Mr. Richard W. Barnes is the Principal 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 items and provides expert consultation on the application of the various pressure boundary codes. Mr. Barnes sits on various code committees responsible for the development of Codes and Standards for quality assurance and requirements for the pressure boundary. He is:

- Past-chair and member of the ASME Standard Committee of the BPV III (Section III); Past Vice-Chair and member of N285A Technical Committee; Member of the B51 Technical Committee; Member of N286 Technical Committee; and Member of ASME B16 Standards Committee.
Mr. Barnes is a Fellow of ASME and has been recognized for contribution to the industry through the following awards:
- The ASME Dedicated Service Award; The Bernard F. Langer Nuclear Codes and Standards Award; The CNA Outstanding Contribution Award; The CSA Award of Merit; and The ASME Melvin R. Green Codes and Standards Medal.

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

IMPORTANT INFORMATION:

PAYMENT: Full payment is due at time of registration. Payment can be made via credit card (VISA, MasterCard or American Express) or purchase order. **PLEASE NOTE:** Payment is non-refundable within 3 weeks prior to the start of the course.

CANCELLATION POLICY: Cancellation must be received in writing 7 days prior to course start date. You may send a substitute. Notification of a substitute must be received at least **72 hours prior to the commencement of the course to allow time for delivery of course material.** If a substitute is not available, the fee for the course may be used towards another ANRIC course at a later date.

**** ANRIC Enterprises Inc. reserves the right to cancel any course and/or change lecturers. Courses that fail to register a "MINIMUM" of 6 participants will be cancelled. Personnel who require this course to meet qualification requirements should contact the office at training@anric.com to discuss/arrange other options.**

INFORMATION ASSOCIATED WITH ON-LINE COURSES FOLLOWS:

The course is delivered on-line.

The maximum number of people per course is 16 people. This limitation is set because the courses are run with Workshops using Breakout Rooms to provide for maximum interaction and learning experience. This provides an excellent learning opportunity.

All rights, title and content of the course manuals and all other instructional material shall remain the property of ANRIC Enterprises Inc. The manuals will be delivered to course participants by courier.

The course is run online in half day sessions (4 half-day), to accommodate the ergonomic issues of sitting at a small screen. An added benefit is that it allows people to cover off other work duties during the course. We have successfully done this for the nuclear power stations in Ontario over the past year and this system has proven to be excellent. This course if run in a classroom setting, is a two (2) full day course.

REQUIREMENT: This course requires participants to have video and audio capability.

There will be an examination/checkout at the end of each course. ANRIC Enterprises Inc. will only provide certificates of successful completion for participants that achieve an examination result of 80% or higher and video access is required for the checkout.