

PROFESSIONAL DEVELOPMENT COURSE

ASME B31.1 POWER PIPING DESIGN & FABRICATION

LECTURER: Mr. R. Peter Deubler, 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:

The objective of the B31.1 piping course is to provide participants with an understanding of the basis of the design requirements for piping and their relationship with the materials, fabrication and examination requirements which are closely related in B31.1. The course will include group discussion on the application of the Code to practical situations in industry. The knowledge gained in attending the CSA B51 course compliments the knowledge gained in the ASME B31.1 course for Canadian practice.

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

DAY 1:

- Introduction to piping design
- Jurisdictional limits
- Review of content of B31.1
- Loadings
- Selection of material, components and joints
- Primary stress protection
 - pressure design of components

DAY 2:

- Layout of piping system
 - support location
- Flexibility analysis
 - collapse protection
 - stress intensification factors
 - flexibility factors
- Fatique
- Interaction of fabrication and examination with design

WHO SHOULD ATTEND?

The B31.1 course is directed toward piping designers and personnel who are required to interact with and to understand the design documents associated with piping either in an industrial setting or in an operational Nuclear Power Plant. Those attending should have a reasonable degree of familiarity with the Code and its application. This course is directed more to the development of personnel who have some experience.

EXPECTATIONS:

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

- 1. An understanding of the concepts used by the B31.1 Code to maintain Pressure Boundary integrity and operate in a safe manner at the design conditions.
- 2. A working knowledge of the relationship between the designs of the piping system, its layout, the impact of Code requirements on these elements including techniques that a designer can use to meet these requirements.

LECTURERS:

Mr. R. Peter Deubler has spent 40 years working in the area of power plant design and has spent over 25 years as a member of various code committees. Since early in his career he has been involved in the design of both nuclear and fossil power plants and has participated in many code committees involving both of these areas. He is currently a member of two ASME Standards Committees, one for Section III for Nuclear Facility Components and one for B31 Piping Standards. In addition, he is a member of eight other committees. His committee work has been focused on the area of piping supports and he has chaired the working group for supports under Section III and the Subgroup Design under Section III, each for 10 years. While chairing these





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committees, Mr. Deubler has lead efforts to incorporate lessons learned from experience and recent design developments for supports, piping and other components into the design requirements of the codes.

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.