

Course Overview

Safety is of primary consideration in the design and operation of nuclear reactors. If nuclear power generation is to survive, it has to meet ever-increasing safety demands. To address the safety-training needs of the Canadian nuclear industry, the CNS is once again happy to offer the CANDU Reactor Safety course. Previous offerings of this course were very successful and enrollment has been constantly high. *This course is eligible for Continuing Education Units in the context of the Engineering Institute of Canada Continuing Education program.*

The course provides an introduction to CANDU reactor safety and licensing principles, at the same time offering an overview of the major systems in a CANDU plant. The course is ideally suited for beginning professionals, but also beneficial to experienced professionals who wish to broaden their knowledge beyond their own field of expertise.

Continental breakfast, buffet lunch, and coffee breaks are provided each day. There will also be a banquet on the second evening of the course. The after-dinner speech at the banquet will highlight a timely topic in the Canadian Nuclear industry.

Topics to be covered in the course include:

- Design and licensing fundamentals
- Core-physics safety analysis
- Thermalhydraulics
- Safety-related systems
- Deterministic and probabilistic safety analyses
- Severe core-damage assessment
- Safety R&D

Registration

Please register on-line via the link on the Reactor Safety Course web page, which you can reach directly at http://www.cns-snc.ca/events/2012_reactor_safety_course or via the CNS web site (<http://www.cns-snc.ca>).

The registration fees are shown below, and include HST (HST # 870488889RT)

- CNS Member: \$845.00 [Must be a CNS member in good standing]
- Non-CNS Member: \$950.00
- Full-time student or CNS retiree member: \$385.00

For registration information, please communicate with:
CNS Office
655 Bay St., 17th Floor
Toronto, ON, Canada, M5G 2K4
Tel: 416-977-7620; Fax: 416-977-8131
e-mail: cns-snc@on.aibn.com

HOTEL ACCOMMODATION

A special room rate per night of \$159 + Tax (+ Parking if required) is available at the Courtyard by Marriott Downtown Toronto. To receive the special hotel rate, you must book by April 17; we suggest you book early to avoid disappointment. You can reserve your room on-line via a dedicated link on the course webpage. Or call 1-800-847-5075 and request the Canadian Nuclear Society Course Group Booking.

CNS CANDU REACTOR SAFETY COURSE



Organized by:
**The Canadian Nuclear Society
Nuclear Science & Engineering
Division**

**2012 May 7-9
(Mon-Wed)**

**Courtyard by Marriott Downtown
Toronto
475 Yonge St.
Toronto, ON
M4Y 1X7**

Course contact (not for registration):

**B. Rouben
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Tentative Schedule

Objectives of the course

- To provide an introduction to CANDU reactor safety analysis principles
- To provide an overview of the major CANDU systems
- To foster nuclear safety culture

Monday, May 7

07:30 Continental Breakfast
08:30 Welcome & Opening Remarks
08:45 CANDU Design Overview
10:15 Break
10:30 CANDU Safety Analysis Fundamentals
12:00 Lunch
13:00 Thermalhydraulic Analysis
14:30 Break
15:00 Reactor Core Physics in Safety Analysis
16:30 End of Day-1 Lectures

Tuesday, May 8

07:30 Continental Breakfast
08:30 Fuel and Fuel Channel Safety Analysis
10:00 Break
10:30 Power Reactor Licensing in Canada
12:00 Lunch
13:00 Reactor Control
14:30 Break
15:00 Environmental Protection
16:30 End of Day-2 Lectures
18:00 Host Bar
19:00 Banquet, with Guest Speaker

07:30 Continental Breakfast
08:30 Radiological Emissions and Impact
10:00 Break
10:30 Severe Core Damage
12:00 Lunch
13:00 Safety Considerations Following Fukushima
14:30 Break
15:00 CANDU Reactor Safety Research
16:30 End of Course

Wednesday May 9