Course Overview

This CNS course will present an extensive overview of the important disciplines in CANDU reactor technology and safety. The course provides an introduction to the basic design, technology, and operation of nuclear reactors. It will also present the major systems in a nuclear plant, as well as the important CANDU reactor safety principles and systems. How to prepare and execute safety analysis to meet licensing demands will also be discussed.

The CNS is presenting this course to enhance the professional and technical capabilities of its members (and non-members) working in, or interested in, the nuclear industry. The course is ideally suited for beginning professionals, but also beneficial to experienced professionals. Come broaden your nuclear knowledge beyond your specific area of work and your own area of expertise.

*This course is eligible for Continuing Education Units in the context of the **Engineering Institute of Canada** Continuing Education program.*

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

Some of the topics to be covered in the course:

- CANDU Design
- Reactor Physics
- Thermalhydraulics
- Reactor Operation
- Balance of Plant
- Safety Systems
- ROP/NOP
- Safety Analysis
- Spent Fuel Management
- Safety Limits
- Experiments to Support Safety Criteria
- Severe Accident Management

Registration

Please register on-line via the link on the Course web page, which you can reach directly by clicking here or via the CNS web site.

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

☐ **CNS Member: $850.00 [Must be a CNS member in good standing]**
☐ **Non-CNS Member: $960.00**
☐ **Full-time student or CNS retiree member: $360.00**

For registration information, please communicate with:
CNS Office
c/o AMEC Foster Wheeler
700 University Avenue, 4th Floor
Toronto, ON, Canada, M5G 1X6
Tel: 416-977-7620; Fax: 416-977-8131
e-mail: cns-snc@on.aibn.com

HOTEL ACCOMMODATION

A very special room rate per night of $139 + Tax is available at the Courtyard by Marriott Downtown Toronto, but t**o receive this special rate you must book by February 3rd 2016; we suggest you book early to avoid disappointment. Or call 1-800-847-5075 and request the CNS Course Group Booking.**

CNS CANDU REACTOR TECHNOLOGY & SAFETY COURSE

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

2016 March 14-16
(Mon-Wed)

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

Course contact (not for registration):

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CNS CANDU Reactor
Technology & Safety Course
2016 March 14-16
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Toronto
475 Yonge St.
Toronto, ON
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Objectives of the course

- **To provide an introduction to CANDU technology and reactor safety**
- **To present safety-analysis principles**
- **To provide an overview of the major CANDU systems**
- **To foster nuclear safety culture**
- **To network with colleagues in the industry**

Monday, March 14

07:30	Continental Breakfast
08:30	Welcome & Opening Remarks
08:45	CANDU Reactor Design Overview (D. Wren, formerly with AECL)
10:15	Break
10:30	Reactor Physics Fundamentals (E. Nichita, UOIT)
12:00	Lunch
13:00	Thermalhydraulics Principles (D. Novog, McMaster University)
14:30	Break
15:00	Safety-Analysis Principles (D. Wright, Candesco – Division of Kinectrics Inc.)
16:30	End of Day-1 Lectures

Tuesday, March 15

07:30	Continental Breakfast
08:30	Safety Design Basis (E. Varin, WorleyParsons Canada)
10:00	Break
10:30	Regional OverPower/ Neutron OverPower (D. Kastanya, Candesco, Division of Kinetrics Inc.)
12:00	Lunch
13:00	Balance of Plant (J. Froats, UOIT)
14:30	Break
15:00	Plant Operation (W. Shen, CNSC)
16:30	End of Day-2 Lectures
18:00	Host Bar
18:30	Banquet, with Guest Speaker (TBD)

Wednesday, March 16

07:30	Continental Breakfast
08:30	Spent Fuel Management (D. Wiles, Carlton University)
10:00	Break
10:30	Safety Limits and Licensing Requirements (D. Serghiuta, CNSC)
12:00	Lunch
13:00	Fuel Safety, Fuel Experiments and Code Validation (T. Nitheanandan, CNL)
14:30	Break
15:00	Severe Accident Management (L. Gilbert, Bruce Power)
16:30	End of Course