

Course Overview

Aim of Course

The aim of this course is to provide an understanding of the CANDU fuel design, performance and operation, and how the fuel interacts with the interfacing systems. The course will be of great interest to the fuel designers, manufacturers, station operations, fuel channel and fuel handling system designers, safety analysts, performance and inspection staff.

Course Outline

This course will provide an overview of the CANDU fuel design, performance and operation, with a special emphasis on the systems that interface with it. Fuel, more than any other reactor component, interfaces with many different systems. This course is designed to enlighten those involved in fuel design and performance of the interfaces; and vice versa. The course will describe the design of the bundle, the detailed nuclear physics of its operation, the thermal-hydraulic performance, the fuel handling, fuel and physics of the reactor, the discharge and storage of the fuel.

Registration

Please register on-line via the link on the CANDU Fuel Technology Course web page, which you can reach directly at

http://www.cns-snc.ca/events/2012_fuel_technology_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: \$750 [Must be a CNS member in good standing]**
- **Non-CNS Member: \$850**
- **Full-time student or CNS retiree member: \$300.**

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

Hilton Garden Inn Ajax

500 Beck Cres., Ajax, ON

Please make accommodation arrangements, if required, directly with the hotel at 905-686-9400. Special group rate of \$139 + tax per night is available on the nights of Sept. 19 and Sept. 20 for course participants if booked before 2012 September 4. Refer to "CNS Fuel Technology Course" at time of booking.

CANDU FUEL TECHNOLOGY COURSE

Canadian Nuclear Society
Fuel Technology Division



2012 September 20-21

Hilton Garden Inn,

500 Beck Cres, Ajax, Ontario

Course contacts (not for registration):

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**CANDU Fuel Technology Course
September 20-21, 2012
Ajax**

Objectives of the Course

- To provide the understanding of CANDU fuel design, performance and operation
- To foster the understanding of the systems that interface with fuel and the effects on performance
- To promote knowledge of fuel within the CANDU industry

Day 1

8:00	Registration
8:30	Opening Remarks <i>Steve Palleck, Consultant, Fuel Technology, GE Hitachi</i> <i>Erl Kohn, Consultant, Fuel Design, AMEC-NSS</i> <i>Ki-Seob Sim, Candu Energy</i>
8:45	Fuel Design Requirements <i>Al Manzer, Cantech</i>
9:30	Design Overview <i>Erl Kohn, Consultant, Fuel Design, AMEC-NSS</i>
10:15	Coffee Break
10:30	Specifying the Design <i>Paul Chan, Royal Military College</i>

11:15	Fuel Performance Assessment <i>Tim Lampman, AMEC-NSS</i>
12:00	Lunch
1:00	Qualification Tests <i>Krishna Chakraborty, Candu Energy</i>
1:45	Fuel Design Codes and Predictions <i>Mukesh Tayal, AECL-Retired</i>
2:30	Coffee Break
2:45	Fuel Physics Within the Bundle <i>Ben Rouben, 12 & 1 Consulting</i>
3:30	Reactor Fuel and Physics Operation <i>Charles Olive, AMEC-NSS</i>
4:15	Advanced Bundle Design <i>Ki-Seob Sim, Candu Energy</i>
6:00	Reception-Dinner with guest speaker
	<u>Day 2</u>
8:30	Conversion Facility - Ceramic UO₂ <i>Steve Douglass, Cameco</i>
9:15	Fuel Manufacturing <i>Min Lee, GEC</i>

10:00	Coffee Break
10:15	Fuel CHF/CCP <i>Glen Harvel, UOIT</i>
11:00	Fuel Safety <i>Samir Girgis, AECL- Retired</i>
11:45	Lunch
12:30	Fuel Defect Detection <i>Eugene Suk, Candu Energy</i>
1:15	Post Irradiation Fuel Examination <i>John Montin, AECL</i>
2:00	Coffee Break
2:45	Fuel Handling <i>Michael Leaker, Candu Energy</i>
3:00	Long Term Management of Canada's Used Nuclear Fuel <i>Jorge Villagran, NWMO</i>
4:00	Closing Remarks <i>Ki-Seob Sim, Candu Energy</i> <i>Erl Kohn, Consultant, Fuel Design, AMEC-NSS</i> <i>Steve Palleck, Consultant, Fuel Technology, GE Hitachi</i>