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, modeling, 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/2015_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: $720 [Must be a CNS member in good standing]**
- **Non-CNS Member: $820**
- **Full-time student (CNS member) or CNS Retiree member: $300.**

For registration information, please communicate with:

CNS Office
4th Floor, 700 University Ave.
Toronto, ON, Canada, M5G 1X6
Tel: 416-977-7620; Fax: 416-977-8131
e-mail: cns-snc@on.aibn.com

HOTEL ACCOMMODATION

Hilton Garden Inn
500 Beck Crescent, Ajax, ON

Please make accommodation arrangements, if required, directly with the hotel at 1-866-336-8077. A special group rate of $129 + tax per night is available on the nights of October 4 & 5 if booked before 2015 September 18. Refer to "Canadian Nuclear Society Course" at time of booking.

CANDU FUEL TECHNOLOGY COURSE

Canadian Nuclear Society
Fuel Technologies Division

2015 October 5-6

Hilton Garden Inn
500 Beck Crescent
Ajax, Ontario, L1Z 1C9

Course contacts (not for registration):

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CANDU Fuel Technology Course
October 5-6, 2015
Ajax

Objectives of the Course

- **To provide the understanding of CANDU fuel design, modeling, performance and safety**
- **To foster the understanding of the systems that interface with fuel and the effects of fuel on trip setpoint**
- **To promote knowledge of fuel within the CANDU industry**

Day 1

08:00 **Registration**

08:30 **Opening Remarks**
Paul Chan, RMCC
Erl Kohn, AMEC-NSS

08:45 **Chemical and Material Requirements**
John Roberts, Bruce Power -Retired

09:30 **Fuel and NOP/ROP Trip Setpoint**
Wei Shen, CNSC

10:15 **Coffee Break**

10:30 **Design Overview**
Erl Kohn, AMEC-NSS

11:15 **Specifying the Design**
Paul Chan, RMCC

12:00 **Lunch**

13:00 **Fuel Physics Within the Bundle**
Ben Rouben, 12 & 1 Consulting

13:45 **Reactor Fuel and Physics Operation**
Charles Olive, AMEC-NSS

14:30 **Coffee Break**

14:45 **Fuel Design Codes and Predictions**
Mukesh Tayal, CNL-Retired

15:30 **Fuel Performance Assessment**
Joe St. Pierre, AMEC-NSS

16:15 **Fuel CHF/CCP**
Glenn Harvel , UOIT

18:00 **Dinner**

Day 2

08:00 **Conversion Facility - Ceramic UO_2**
Mathieu Gouin, Cameco

08:45 **Fuel Manufacturing**
Thomas Onderwater, GE Hitachi

09:30 **Advanced Bundle Design**
Krishna Chakraborty, Candu Energy

10:15 **Coffee Break**

10:30 **Defective Fuel Modeling**
Brent Lewis, UOIT- Retired

11:15 **Fuel Safety**
Samir Girgis, CNL- Retired

12:00 **Lunch**

13:00 **Fuel Defect Detection**
Eugene Suk, Candu Energy

13:45 **Post Irradiation Fuel Examination**
John Montin, CNL-Retired

14:30 **Coffee Break**

14:45 **Fuel Handling**
Ralph Granz, GE Hitachi

15:30 **Long Term Management of Canada's Used Nuclear Fuel**
Jennifer Noronha, NWMO

16:15 **Closing Remarks**
Erl Kohn, AMEC-NSS