



Delivering Clean Energy through CANDU[®] Life Extension

**11th International Conference on
CANDU[®] Maintenance & Nuclear Components
2017 October 1-4
Toronto Marriott Downtown Eaton Centre Hotel
Toronto, ON, Canada**

Conference Sponsor & Organizer: Canadian Nuclear Society – Nuclear Operations and Maintenance Division

CMNCC-2017 CONFERENCE

The CANDU[®] Maintenance and Nuclear Component Conference (CMNCC-2017) will be held on October 1-4, 2017 at the Marriott Eaton Centre Downtown Toronto. The three-day program, built around a theme of “Delivering Clean Energy through CANDU[®] Maintenance and Life Extension”, will comprise six plenary sessions and six parallel technical programs.

The Sunday (October 1) program will include the popular CANDU[®] Configuration Overview Course, in addition to the Opening Reception. The CANDU[®] Configuration Overview Course focuses on CANDU[®] Plant and Reactor Orientation, Systems and Reactor Regulation, and Plant Operations, Degradation and Maintainability. Following the reception there will also be a “Utility Engagement” team meeting where the representatives from various CANDU utilities will exchange ideas and develop plan to encourage utility participation in the CNS in general and the Nuclear Operation and Maintenance Division of the CNS in particular.

CMNCC-2017 will also include the student program that includes a poster session based on technical paper submissions, similar to that in CANDU[®] Maintenance Conference (CMC)-2014 and International Nuclear Components Conference (INCC)-2015.

Plenary Sessions & Technical Program

There will be enhanced emphasis on attracting senior leaders, from Canada and abroad. The plenary and technical programs will be divided into six parallel streams that will develop the conference theme: Delivering Clean Energy through

- CANDU[®] Nuclear Power Plant life extension that is built around successful refurbishment, ongoing maintenance and aging management
- Asset/life management and equipment reliability,
- Maintenance and refurbishment of nuclear components,
- Maintaining economic competitiveness using mitigation measures to prevent deratings,
- Implementing post Fukushima strategies to improve plant safety
- Aging Mitigation measures to achieve world-class performance of CANDU[®] Nuclear Power Plants and to provide continued safe, reliable and clean energy in Canada and around the world from CANDU[®] reactors.

| | Sun, October 1 | Mon, October 2 | Tue, October 3 | Wed. October 4 | | | | | | |
|-------|----------------------------------|--|---|---|------------------------------|------|------|------|------|------|
| 07:00 | | | | | | | | | | |
| 07:30 | | Speakers' & Participants' Breakfast | Speakers' & Participants' Breakfast | Speakers' & Participants' Breakfast | | | | | | |
| 08:00 | | | | | | | | | | |
| 08:30 | CANDU [®] Course | Plenary A (Life Extension) | Plenary C (Maintaining Competitive edge) | Plenary E (Asset Management/Component Reliability) | | | | | | |
| 09:00 | | | | | | | | | | |
| 09:30 | | Technical Sessions | | | | | | | | |
| 10:00 | | | | | | | | | | |
| 10:30 | | A1.1 | B1.1 | C1.1 | D1.1 | A3.1 | B3.1 | | C3.1 | D3.1 |
| 11:00 | | A1.2 | B1.2 | C1.2 | D1.2 | A3.2 | B3.2 | | C3.2 | D3.2 |
| 11:30 | | A1.3 | B1.3 | C1.3 | D1.3 | A3.3 | B3.3 | | C3.3 | D3.3 |
| 12:00 | | A1.4 | B1.4 | C1.4 | D1.4 | A3.4 | B3.4 | | C3.4 | D3.4 |
| 12:30 | | | | | | | | | | |
| 13:00 | | | Plenary B (CANDU [®] Maintenance) | Plenary D (Benefit Through Co-operation) | Plenary F Lessons Learned | | | | | |
| 13:30 | | | | | | | | | | |
| 14:00 | | | Technical Sessions | | | | | | | |
| 14:30 | | | | | | | | | | |
| 15:00 | | | A2.1 | B2.1 | C2.1 | D2.1 | A4.1 | B4.1 | | C4.1 |
| 15:30 | Utility Engagement Meeting | A2.2 | B2.2 | C2.2 | D2.2 | A4.2 | B4.2 | | C4.2 | D4.2 |
| 16:00 | | A2.3 | B2.3 | C2.3 | D2.3 | A4.3 | B4.3 | | C4.3 | D4.3 |
| 16:30 | | A2.4 | B2.4 | C2.4 | D2.4 | A4.4 | B4.4 | | C4.4 | D4.4 |
| 17:00 | | | | | | | | | | |
| 17:30 | Welcoming Reception | Networking Trade Show (all day) | Networking Trade Show (all day) Student Poster session | Networking Trade Show (all day) | | | | | | |
| 18:00 | | | | | | | | | | |
| 18:30 | | | | | | | | | | |
| 19:00 | | Banquet Surprise (?) Speaker/Entertainment | Student Poster Session | | | | | | | |
| 19:30 | | | | | | | | | | |
| 20:00 | | | | | | | | | | |
| 20:30 | | | | | | | | | | |
| 21:00 | | | | | | | | | | |

SPONSORSHIP OPPORTUNITIES

The theme of CMNCC-2017 is “Delivering Clean Energy through CANDU Life Extension”, a vision shared by Operating Utilities and Service Providers alike.

A variety of items and levels of sponsorship are available. The complete Sponsorship Information package will be available on the website: www.cmnc2017.org or by contacting the Conference Administrator for details.

TRADE SHOW BOOTHS

Companies providing engineering, refurbishment, retrofit and maintenance services to the Operating Utilities

Consider booking a Trade Show booth space to showcase your company's products and services to the Conference participants. CMNCC-2017 provides an excellent opportunity to network and renew or establish new industry contacts that will lead to increased business opportunities.

The complete Trade Show Information package will be available on the website: www.cmccc2017.org or by contacting the Conference Administrator for details.

CONFERENCE VENUE

The Conference will be held at the Toronto Marriott Downtown Eaton Centre Hotel, 525 Bay Street, Toronto, ON. M5G 2L2.

ACCOMMODATION

The Toronto Marriott Downtown Eaton Centre Hotel, 525 Bay Street, Toronto, ON, M5G 2L2, is the official provider of accommodation for CMNCC-2017 participants. The hotel is conveniently located in downtown Toronto. A block of rooms is available at the preferred rate of \$249/night.

To receive this special rate, be sure to make your reservation well before the reservation cut-off date of August 30, 2017, and be sure to indicate that you are attending the Canadian Nuclear Society Conference.

Reservations made after August 30, 2017, or once the CNS block is sold out, will be accepted based on availability and at the prevailing guest room rates at the time the reservation is made.

A dedicated site for Online Reservations will be available on the conference website. Reservations can also be made by calling Marriott Reservations toll free at 1-800-228-9290.

CONFERENCE PROCEEDINGS

Submission of full papers for the Conference Proceedings is encouraged, however as a minimum PowerPoint slide presentations are required for inclusion.

Submission should be made electronically via <https://www.softconf.com/h/cmccc-2017>.

Note to Speakers: If you do not provide a full paper for publication in the Conference Proceedings, your presentation may be ineligible for reference for citation in peer-reviewed scientific journals and at other conferences.

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IMPORTANT DATES

- Due Date for Abstract Submission: 1 June 2017
- Notification of Abstract Acceptance: 16 June 2017
- Draft Paper submission due date: 14 July 2017

- Acceptance notification of Final paper 18 August,2017
- Hotel Room Block cut-off date: August 30, 2017
- The CANDU[®] Course: October 1, 2017
- The Conference: October 1-4, 2017

STUDENT GRANT PROGRAM

A number of Student Grants will be available, thanks to expected generous contributions from industry sponsors. These fixed-amount grants, payable at the end of the Conference, support the participation of qualifying students who plan careers within the nuclear industry. See the Conference website www.cmnc2017.org for details and the application process.

NETWORKING EVENTS

Utility Engagement Meeting (open to All CMNCC Participants)

Sunday, October 1, 2017 15:30-17:00

Welcome Reception

Sunday, October 1, 2017 17:30 – 19:00

Coffee & Breakfast Pastries

Monday, October 2 07:30 – 08:30

Tuesday, October 3 07:30 – 08:30

Wednesday, October 4 07:30 – 08:15

Coffee Breaks and Lunch each day of presentations and banquet on October 3.

CANDU[®] COURSE

The CANDU[®] Course was developed to complement the CMNCC by familiarizing attendees with the basic layout of a nuclear station, and the function of nuclear plant equipment. It provides a high-level framework for those that are new to (or considering a career in) the nuclear industry, or for those who work in focused technical areas but want exposure to the larger picture of how a nuclear plant works... The Course can provide better context for participating in the CANDU[®] Maintenance Conference and for understanding the technical presentations, as well as for improving understanding for those working in areas of analysis, research, plant modifications, or refurbishment.

The Course focuses on the basics of what a typical CANDU[®] nuclear power plant looks like, how it is laid out, and how the structures and systems work together to transform heat into electrical power. The basic functional architecture of the reactor core, steam generators, process systems and reactor controls is reviewed. Topics central to nuclear maintenance are also introduced, such as operating chemistry, degradation mechanisms, maintainability and plant operations. The Course can be attended by anyone, but some technical background and/or basic familiarity with nuclear fission would be beneficial.

CONFERENCE REGISTRATION

Conference Registration is to be completed online through the website: www.cmnc2017.org. Go to the 'Registration' tab in the navigation bar at the top of the page, then to "Click Here" to get to the online registration form.

If you have any problems completing your registration, please contact the CNS Office by calling 416-977-7620 or by email at: cns-snc@on.aibn.com.

Registration fees include: participation in the CANDU® Course, all Plenary and Concurrent Sessions, the Sunday Welcome Reception, Early AM Coffee & Pastries each day, AM & PM beverage breaks each day, a Luncheon each day, the Monday Networking Reception and Dinner, and the Conference Proceedings. Registration fees are inclusive of 13% HST.

| | Early Rates (by July 31, 2017) | Regular Rates (after July 31, 2017) |
|---|---|--|
| <i>Full Conference (includes CANDU® Course, Oct. 1)</i> | | |
| CNS Member | \$850 | \$940 |
| Non-member | \$950 | \$1040 |
| Full-time Student* | \$150 | \$150 |
| CNS Retiree | \$250 | \$250 |
| <i>CANDU® Course only (Oct. 1)</i> | | |
| CNS Member | \$300 | \$300 |
| Non-member | \$350 | \$350 |
| Full-time Student* | No Charge | No Charge |

*The Student rate is applicable only to students who are CNS Members (Student Membership in the CNS is at no cost for full-time students, and can be obtained by registering online through the CNS website at www.cns-snc.ca/membership).

CANCELLATION AND REFUND POLICY

Cancellation of registration must be submitted in writing to the Conference Registrar (CNS Office) as indicated above, no later than August 11, 2017. Refunds, less a \$113 processing fee, will be issued after the Conference. No refunds will be provided for cancellation of paid registrations after August 11, 2017.

CNS MEMBERSHIP

If you are not already a member of the CNS, consider joining in order to obtain the reduced Conference registration rate as well as the many other membership benefits. For details, go to the CNS website, www.cns-snc.ca.

CONFERENCE ORGANIZING COMMITTEE

| | | | |
|---|---|--|---|
| <i>Conference Sponsors: Nuclear Operations & Maintenance Division Co-Chairs</i> | <i>Aman Usmani. Polad Zahedi</i> | <i>Student Program Chair</i> | <i>Ravi Kizhatil</i> |
| <i>Conference General Chair Assisted by</i> | <i>Aman Usmani Kamal Verma</i> | <i>Treasurer Assisted By</i> | <i>Mohinder Grover John Roberts</i> |
| <i>Conference Senior Advisors</i> | <i>Jacques Plourde Dan Gammage</i> | <i>Financial Advisers</i> | <i>Ken Smith M. Younis</i> |
| <i>Facilities & Assistant General Chair</i> | <i>Ben Rouben</i> | <i>Sponsorship & Exhibit Chair</i> | <i>Kris Mohan</i> |
| <i>Plenary Program Chair Assisted by</i> | <i>Keith Stratton Jacques Plourde</i> | <i>Assisted By Publicity Chair</i> | <i>Andrew Ali Peter Easton</i> |

Paul Thompson

*Utility Engagement Team &
Chair*

*Polad Zahedi
Reps from OPG, Bruce Power,
NB Power, CNL and overseas
CANDU utilities
Ron Oberth*

*Fred Dermarkar
Jerry Hopwood*

Industry Liaison Chair

*CANDU[®] OWNERS Liaison
Co-Chairs
Assisted by*

*Macit Cobanoglu
Don Wilson
Nalini Valliere*

*Technical Co-Chairs &
Proceeding Co-Chairs*

Metin Yetisir

CANDU[®] Course

Graham MacDonald

Assisted by

*Krish Krishnan
Stephen Yu
Ken Kirkhope*

MESSAGE FROM THE CONFERENCE GENERAL CHAIR

On behalf of the Canadian Nuclear Society and the CMNCC- 2017 Organizing Committee, it is my great honor to request that you join us at the 11th International Conference on CANDU[®] Maintenance and Nuclear Components, CMNCC-2017. This is the only technical nuclear conference to be held in the Greater Toronto Area in 2017, and it will bring together subject-matter experts from operating utilities and service providers for intensive discussion on various topics of importance to the nuclear industry.

CMNCC-2017 is a 'flagship' conference with the involvement of the CNS Utility Engagement Team as an integral part of the Organizing Committee. The conference will focus on the future; while making use of our past and present experience to meet the Needs and Interests of the Operating Utilities (NIOU).

The concept of NIOU was introduced at CMC 2011, where utilities identified issues of importance to them and service providers undertook to find solutions. That approach continues with this year's conference to provide the ideal environment for open and free exchange of ideas, and to incubate solutions to address tomorrow's challenges and opportunities.

Keeping up with tradition, the conference will include the very popular CANDU[®] Configuration Course, an excellent technical program with parallel sessions each day, the Trade Show involving leading service providers, strong student engagement, and a variety of networking opportunities.

We are encouraged by the planned range of technical and plenary topics as laid out in this brochure. Now it's your turn to help to make the conference a great success - become involved by encouraging registration in good numbers, by sponsoring the conference in an area of your choice, and by exhibiting and demonstrating your company's strengths in support of the industry.

I look forward to welcoming you to the conference at the Toronto Marriott Downtown Eaton Centre Hotel 525 Bay Street, Toronto, October 1-4, 2017 with the objective of "Delivering Clean Energy through CANDU[®] Maintenance and Life Extension".

Sincerely,
Aman Usmani
Conference General Chair