

# G4SR-4 Post-Conference Technical Tour – Friday Oct 7, 2022

Friday, Oct. 7: Ontario Power Generation's (OPG) Darlington Nuclear Refurbishment Project & Darlington New Nuclear Small Modular Reactor (SMR) Project



- Spend a fascinating morning at OPG's Darlington Nuclear site learning about OPG's key nuclear projects; the Darlington Refurbishment and the Darlington New Nuclear Project.
- As part of the Darlington Nuclear Refurbishment Project (DNRP) planning and preparation, OPG constructed a leading-edge training facility, housing a first of its kind, full-scale nuclear-reactor mock-up where workers practice essential tasks in a controlled and realistic environment prior to performing them at the plant.
- Removing and replacing key components within each of Darlington's four CANDU® reactors is a critical part of DNRP, comprising a significant portion of the work on the project schedule. To get this work done, highly skilled workers must use specialized tools in tight spaces and under challenging conditions.

- The DNRP Mock-Up and Training Facility allows workers on the Darlington Refurbishment to practice their work tasks, perfect their techniques and perform dry runs or full "dress rehearsals," using real tools and wearing full protective equipment.
- This training ensures all workers are thoroughly prepared and tools are tested in a safe and realistic environment long before they begin actual work in the station, which reduces schedule uncertainty and ensures worker safety.
- Using state-of-the art technology, Ontario-based manufacturers have developed more than 400 specially-designed tools to remove and install reactor components, and to perform inspections and repairs on DNRP. It's the specialized tooling — in combination with high-quality training — that continues to improve performance and manage costs on one of the province's largest clean-energy projects, and one of the county's largest infrastructure projects.
- The Darlington site is the only site in Canada licensed for new nuclear development, with an approved environmental assessment.
- OPG is working with partners GE Hitachi Nuclear Energy (on reactor design and licensing) and ES Fox (for early site-preparation activities) to further their mutual goal of deploying the country's first grid-scale SMR at the Darlington site before the end of the decade.
- A drive around the Darlington site will provide not only perspective on the size and complexity of one of the world's top performing nuclear power plants, but also an early glimpse of the foundation-laying work being done to prepare for future nuclear construction.

# **Maximum Capacity – 40**

Fees for each participant - \$80. It includes the bus pickup and drop off, technical tour, and lunch. See Agenda on next page.

Download the flyer, and register early at <a href="www.g4sr.org">www.g4sr.org</a> (Separate and independent registration from the conference), to avoid disappointment.

## **Special Requirements:**

- While participants will not require a security clearance because they will remain outside the Protected Area, they will need to be carrying government-issued photo ID at all times.
- OPG requires the list of participants with shoe sizes.
- Once registration is closed, we will communicate with tour registrants, to confirm the names and titles of all the participants, as well as the shoe size of each (so OPG can provide appropriate PPE).

#### **G4SR-4 Organizing Committee**

FOR ANY INQUIRIES REGARDING G4SR-4, CONTACT: ROUBENB@ALUM.MIT.EDU



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#### **Agenda**

# **G4SR-4 International Conference - Canadian Nuclear Society**

# Darlington Reactor Mock-up and DNGS Site Bus Tour 1855 Energy Drive, Courtice / 1 Holt Road, Clarington

# Friday, October 7, 2022 DEC Auditorium

9 a.m. Arrival at DEC Information Centre

Welcome and tour group sign-up (two sessions)

**Move into DEC Auditorium** 

9:15 a.m. Overview presentation: OPG, Darlington New Nuclear and

**Refurbishment Projects** 

10 a.m. Pre-tour Safety Briefing

Divide into two groups

**Group B - Don PPE for Mock-up Tour** 

10:15 a.m. First Tours Begin

Group A – Bus tour of DNGS site

Group B – Walk through of Mock-up Training Facility

11 a.m. Return to DEC Information Centre - Doff PPE



- 11:15 a.m. Reassemble into groups Group A Don PPE for Mock-up Tour Second Tours begin
  - Group B Bus tour of DNGS site
  - Group A Walk through of Mock-up Training Facility
- 12 p.m. Return to DEC Auditorium Doff PPE
- 12:15 p.m. Lunch and Q&A
- 12:45 p.m. Visitors depart