

DNGS Community Advisory Council
Darlington Nuclear Information Centre
Tuesday, April 22, 2025
Highlights

Site Update

Allan Grace talked about: an injury of a construction worker at Darlington; the operating status of the site's four units; the harvesting of the isotope Cobalt-60; OPG being granted a Licence to Construct an SMR at Darlington; and other items.

NWMO Project Update

Joe Gaboury presented an update on the Nuclear Waste Management Organization's site selection process for a deep geological repository (DGR) for the storage of used nuclear fuel in Canada. In 2024, the process led to the selection of Wabigoon Lake Ojibway Nation (WLO) and the Township of Ignace as the DGR site. Joe also talked about a site selection process for a DGR to store intermediate-level and non-fuel high-level waste. He emphasized the importance of informed consent from host communities.

Nuclear Sustainability – Waste Management and Decommissioning Strategies

Heather Rambukkana talked about Nuclear Sustainability Services and its management of waste from Ontario's 20 CANDU reactors. She described in detail how NSS minimizes and stores nuclear wastes in three waste management facilities at Darlington, Pickering and near Bruce Power. Stanley Vichilu presented an update on operations at the Darlington Waste Management Facility.

Darlington Public/Community Affairs

Lindsay Hamilton presented an update on OPG activities in the community. March break entertaining and education programs, a Bring Back the Salmon event, the Electrifying Education program, a forthcoming CNSC hearing on Darlington's operating licence renewal, and OPG participating in Maple Fest on June 3rd were among the items mentioned.

**DNGS Community Advisory Council
Darlington Nuclear Information Centre
Tuesday, April 22, 2025**

CAC:

Jim Boate
Sami Elhajjeh
Shiela Hall
Mary Novak
Jennifer O'Meara
Maria Petri
Heather Reid
Stacy Wanamaker
Bonnie Wrightman

Regrets:

Cara Gregory

Canadian Association of Nuclear Host Communities:

Adrian Foster

Nuclear Waste Management Organization:

Joe Gaboury

OPG:

Allan Grace
Lindsay Hamilton
Sara Irvine
Jessica Nash
Heather Rambukkana
Stanley Vichilu

Hardy Stevenson and Associates:

Francis Gillis
Dave Hardy

Topic #1: Health and Safety Moment

Following a Land Acknowledgment, Senior Vice President Allan Grace noted that the recent arrival of spring brings its own safety challenges. He talked about his own experiences around the home. He was clearing out brush and, because of thorns, had to wear appropriate clothing. He discovered his son standing on the top rung of a ladder, not a wise decision. Fortunately, he got him to move down before any mishap. Allan also noted that there is still ice on the trail around OPG property.

Topic #2: Opening Remarks and Review of Minutes

CAC Facilitator and Chair Dave Hardy noted that OPG is planning a tree planting on the Darlington site as a memorial for recently deceased Council member Penny Smith. Penny was a very involved CAC member for many years.

Dave welcomed Maria Petri to the Council. Maria is the Chief Executive Officer of the Bowmanville Hospital Foundation.

Dave noted that we now maintain a list of pending actions called for by the CAC. These include:

ACTION 1: Invite new OPG CEO Nicolle Butcher to a joint Darlington/Pickering CAC meeting.

ACTION 2: Invite CNSC representatives to a joint Darlington/Pickering CAC meeting.

ACTION 4: OPG presentation regarding Wesleyville at a future meeting.

ACTION 5: CAC member Mary Novak to follow up with Clarington Councillor Sami Elhajjeh, regarding the municipality's information needs during the term of the operating licence.

The following Action was addressed:

ACTION 3: Will there be any formal review of Darlington performance during the 30-year term of the operating licence being applied for by OPG? Aditi Bhardway took that question back to OPG for clarification. Aditi subsequently provided to the CAC a detailed list of OPG's many actions monitoring Darlington's compliance with the licence throughout its term.

In March, the CAC received a Thank You letter from OPG for our intervention in the hearing in January regarding OPG's application for a Licence to Construct the first small modular reactor (SMR) at Darlington.

The minutes of the CAC meeting of Jan. 28, 2025, were approved without changes, as were the minutes of the in-camera CAC meeting regarding intervention in the application to renew the Darlington operating licence.

Topic #3: Canadian Association of Nuclear Host Communities (CANHC)

Adrian Foster, Mayor of the Municipality of Clarington, reviewed CANHC highlights from 2024. He talked about: CANHC interventions to the Canadian Nuclear Safety Commission (CNSC); an in-depth report on host community agreements for nuclear facilities; Canada's global leadership in nuclear energy; and other matters. More information about CANHC is available at: <https://canhc.info/>.

Adrian responded to a Council question:

- *Does CANHC have a social media presence?*
Not at this time. CANHC has limited resources.

Topic #4: Site Update

Senior Vice President Allan Grace presented a site update:

- A Toronto Hydro worker passed away from an on-the-job accident in March. As the industry learns more about this accident, it will take steps to avoid a repeat.
- A couple of weeks ago, a construction worker at the Darlington SMR site was injured and is still under treatment. OPG is learning about electrical work hazards from this incident.
- Units 1, 2, and 3 are operating at or near full power. The refurbishment of Unit 4 will be completed by early next year.
- Within the next month or so, the World Association of Nuclear Operators (WANO) will be conducting a peer review on the site, a stressful but exciting time for Darlington.
- The recently refurbished Unit 1 is now creating the isotope Cobalt-60, which is used to sterilize single-use medical devices as well as certain food products. It will be harvested in 2028 and distributed around the world.
- On April 4th, the CNSC granted OPG a licence to construct the first of four SMRs at Darlington.

Allan responded to a Council question:

- *Is our trade war with the U.S. having any effect on OPG?*
There is no direct impact on OPG, but there are potential supply chain impacts. We are looking to broaden our Canadian and overseas sourcing.

Topic #5: Nuclear Waste Management Update

Joe Gaboury, Director Indigenous Engagement at NWMO, presented an update on the project to construct a deep geological repository (DGR) for the storage of used nuclear fuel in Canada (Appendix 1). Joe noted that the Nuclear Waste Management Organization announced the selection of a DGR site late last year: Wabigoon Lake Ojibway Nation (WLON) and the Township of Ignace.

Joe talked about the multiple safety layers that will be provided by the DGR: the fuel bundles are placed in used fuel containers which are encased in bentonite clay set in the rock of the Canadian Shield. The DGR will be set deeper than the CN Tower is high. Ultimately, 5.5 million bundles of used CANDU fuel will be stored in the Repository. The underground footprint of the DGR will be two by three kilometres.

The project timeline is:

- Site selection – to 2024
- Regulatory decision-making process: 2025 – 2033
- Design and construction: 2033 – 2043

Regarding the process to select Canada's used nuclear fuel management plan, Joe said that the social side was the most challenging aspect. A lot of work went into narrowing down the list of potential sites. Only one First Nation did not invite NWMO to talk to them.

The first meeting with each community was only to provide information. Joe remarked that, for the NWMO, an informed "No" was better than an uninformed "Yes."

Joe reviewed NWMO's Reconciliation journey with First Nation communities from 2002 to 2023. The journey included engaging respectfully with Indigenous communities, providing cultural and Reconciliation training to staff, and the transparency of an annual Reconciliation progress report. These steps were a big part of getting into Indigenous communities. "We only asked that they listen to us," Joe said. "It was difficult, but not as much as we thought it would be."

Joe described the NWMO's site selection process for Canada's used fuel DGR project. In 2010, 22 communities volunteered to participate in the process. As mentioned, in 2024, the Wabigoon Lake Ojibway Nation and the Township of Ignace were selected as the site. Joe noted that WLON's acceptance rate was 80 percent. The NWMO may now proceed to detailed site characterization and licensing.

Joe talked about the regulatory decision-making timelines and the project phases and timelines (for details see Appendix 1, slide 9):

- Site preparation and construction: 2030 – 2042
- Operations: 2043 – 2092
- Decommissioning and closure: 2093 – 2192

Joe stated that the fuel in the DGR will be retrievable. He noted that NWMO refers to the project as “permanent storage,” while Finland calls their project “temporary storage.”

Intermediate-Level and Non-Fuel High-Level Waste

In Fall 2020, the Government of Canada asked the NWMO to develop an Integrated Strategy for Radioactive Waste (ISRW), which the Organization did in consultation with the public and Indigenous communities. In October 2023, the Minister of Natural Resources Canada accepted the ISRW and NWMO recommendations:

Recommendation 1: Intermediate-level waste and non-fuel high-level waste to be disposed of in a deep geological repository with implementation by the NWMO.

Recommendation 2: Low-level waste to be disposed of in multiple near-surface disposal facilities with implementation by waste generators (e.g. OPG)

Joe said that the NWMO won't be going out to communities to inform and gauge interest until 2026 or 2027.

Joe responded to Council questions:

- *Would there be an opportunity to co-locate the intermediate-level waste DGR at WLON/Ignace?*
We would have to consult those communities about that.
- *So the DGR now confirmed for WLON/Ignace is just for high-level waste?*
Yes, it's just for CANDU used fuel waste. For any other waste, we would have to go back and consult with the communities.
- *Might other Indigenous groups oppose construction of the DGR at WLON/Ignace?*
Yes, one Indigenous community has asked for a break in the process.
- *Are you engaging with Finland?*
Yes, we have been working closely with them and sharing information.
- *Are there any competing claims to potential sites for the intermediate-level/non-fuel high-level waste DGR; for example, mining companies?*
We are looking for sites where there are no prior claims.
- *You made reference to an NWMO water statement in 2023. What is that?*
We have confirmed that the water at the depth of the planned DGR is very salty, indicating that it will never reach the water table.

- *I assume that a return to green space will take place after the decommissioning and closure of the DGR in the 22nd Century.*

That will be up to the generation at the time, but green fielding is the current assumption.

Topic #6: Nuclear Sustainability – Waste Management and Decommissioning Strategies

Heather Rambukkana, Director Eastern Operations & Maintenance, talked about Nuclear Sustainability Services (NSS) and its management of the waste from Ontario's 20 CANDU reactors (Appendix 2).

Heather noted that all the waste under NSS care falls into three categories of action: preventing creation of waste in the first place; managing the small percentage of waste that must be disposed of for the long term; and harnessing waste and byproducts to make nuclear power useful beyond just generation (e.g., the extraction of the isotope Cobalt-60 that Allan just mentioned).

She noted that Nuclear Sustainability Services (NSS) cares for waste from Ontario's 20 nuclear reactors in three waste management facilities:

- Western Waste Management Facility: low - and intermediate-level waste from all stations; Bruce Power used fuel
- Darlington Waste Management Facility: Darlington used fuel; intermediate-level waste from refurbishment
- Pickering Waste Management Facility: Pickering used fuel; intermediate-level waste from Pickering re-tube; will also handle waste from refurbishment of Units 5 – 8

She described in detail how Nuclear Sustainability Services: minimizes low-level waste as much as possible; stores intermediate-level waste and used fuel; and plans for their permanent disposal. Like the NWMO, NSS consults with the public and Indigenous communities, and recognizes the importance of engaging ~~informing~~ them.

Heather talked about how NSS meets high standards of nuclear safety and radiation protection. NSS ensures that collective doses are as low as reasonably achievable (ALARA).

Heather responded to a Council question:

- *Do you incinerate any low-level waste?*
No, all low- and intermediate-level waste is managed at the Western Waste Management Facility. NSS achieves significant volume reduction in these wastes before they are shipped to the WWMF.

Nuclear Sustainability Services – Darlington Waste Management Facility

Stanley Vichilu, Senior Manager DWMF, presented an update on facility operations. He noted that, in 2024, DWMF loaded 57 dry storage containers (DSCs) of used fuel, meeting its target for the year. As part of refurbishment support, collandria fittings were received by the facility. The biggest part of supporting refurbishment has now been completed by the DWMF. Storage Building #3 will be in service by August of this year.

The DWMF current operating licence has a term of 10 years, ending in 2033.

Stanley noted that performance reports for all three OPG waste management facilities are available at opg.com.

He added that DWMF is always pleased to host community visitors.

Topic #7: Darlington Public/Community Affairs Reports

Lindsay Hamilton, Senior Manager Stakeholder Relations, Corporate Affairs, presented an update on OPG activities in the community:

- In February, OPG representatives attended the Clarington Public Libraries Winter Wonderlearn event on Family Day and interacted with over 1,000 people.
- From March 10 – 14, OPG joined with community partners to create some entertaining, free educational programs for the annual March Break Fun.
- The Spring 2025 issue of Neighbours Newsletter was released in March. The newsletter reaches over 270,000 residents in the Darlington and Pickering areas.
- Students from the Dr. G.J. MacGillivray School in Courtice and Duffins Bay Elementary School in Ajax joined OPG, Ontario Federation of Anglers and Hunters (OFAH), Toronto Region Conservation Authority (TRCA) and Central Lake Ontario Conservation Authority (CLOCA) for a Bring Back the Salmon event.
- The OPG team will be participating in CLOCA's Great Lakes Students Conference on Friday, April 25th. The conference aims to foster a deeper understanding of the Great Lakes' ecosystems.
- The Electrifying Education program is completely booked to the end of the current school year.
- Part 2 of the CNSC hearing on Darlington's operating licence renewal will take place June 24 – 26. Intervention submissions must be provided to the CNSC by May 8th.

- OPG will be attending Maple Fest on June 3rd and the Clarington Community Safety Day on June 7th.
- OPG will be hosting the Clarington Board of Trade's energizing opportunity summit on May 6th.

Build what you can:

Lindsay described how OPG teams design and construct structures built with non-perishable food cans (containing food) displayed at entrances to buildings across the site. The food from the competition will be donated to Feed the Need Durham.

The Nuclear Sustainability Services – Darlington team had an amazing time and built an award-winning structure. Over 400 meals were donated with this structure. (See photos in Appendix 3.)

Stanley noted that the NSS team followed all safety protocols in building the structure.

Topic #8: Information Sharing with CAC and with Clarington during Term of Darlington Operating Licence

In discussing OPG's request for a 30-year term for a renewed Darlington operating licence, the CAC had raised questions about formal reviews of the station's compliance during that term.

A Council member, who had raised a number of questions about this issue, expressed appreciation that OPG had answered about 95 percent of her questions.

Mayor Foster remarked that the municipality saw very little to be concerned about regarding OPG's communication with them during the term of the licence. During the recent CNSC hearing regarding the Licence to Construct an SMR at Darlington, the municipality took the opportunity to raise two issues about the 30-year operating licence being sought for Darlington:

- Notification of operational activities during the term of the licence
- Opportunities for the municipality to intervene during the 30-year term

Mayor Foster noted that the CNSC called the day after the hearing to address both issues. Their detailed response "took the issue completely off the table," he said.

What will have to be determined is what level of materiality should trigger notifying the Clarington clerk. We don't want to be overwhelmed with information, the mayor said. Unless something completely surprising occurs, Clarington has no concerns about the 30-year term.

He added that, through CANHC, the municipality is in very close communication with CNSC. He noted that the British and the Americans say that Canada has the best regulator.

Jessica Nash, Manager Corporate Relations, noted that OPG has sent a letter to the CNSC regarding compliance reviews that OPG conducts every 10 years during the term of the licence.

Topic #9: Concluding Remarks

Allan thanked Council members for this evening's great questions and discussion. He expressed appreciation for the time and effort they devote to CAC participation.

Next Meeting

Darlington Nuclear Information Centre
Tuesday, June 24, 2025
4 pm – 7 pm