

DNGS Community Advisory Council
Darlington Nuclear Information Centre
Tuesday, Sept. 23, 2025
Meeting Highlights

Site Updates

Darlington Nuclear Generating Station (DNGS) Senior Vice President Allan Grace presented site updates for Darlington. He talked about the operating status of the units at DNGS. Items at Darlington included: the status of Unit 4 refurbishment; OPG production of certain medical isotopes; Part 2 of a regulatory hearing on the Darlington licence renewal.

2024 Environmental Monitoring Program Report

Lindsay Parks, Environmental Advisor, OPG, presented a report on the 2024 Environmental Monitoring Program (Appendix 1).

2024 Groundwater Monitoring Program Report

Raphael McCalla, Director Environment, Health & Safety, OPG, provided a presentation on the 2024 Groundwater Monitoring Program (GWMP) report (Appendix 2).

Public/Community Affairs

Lucas Curran presented a recap of Darlington's involvement in summer 2025 activities. Among the Darlington activities: Bowmanville Rotary Club's Street Easts Festival, the Clarington Library, Museum and Archives Summer Reading Club launch and wrap up, Bowmanville Farmers Market, Municipality of Clarington Canada day event, and the Orono Fair.

Tuesday, Sept. 23, 2025

Darlington CAC:

Jennifer O'Meara

Sami Elhajjeh

Cara Gregory

Maria Petri (via video)

Mary Novak (via video)

Regrets:

Jim Boate

Bonnie Wrightman

Sheila Hall

Heather Reid

OPG:

Allan Grace

Lucas Curran

Sarah Malcolm

Raphael McCalla

Lindsay Parks

Tiasi Ghosh

Facilitator:

Carrie-Anne Atkins

Topic #1: Land Acknowledgement

DNGS Senior Vice President Allan Grace provided a land acknowledgement, recognizing that the Darlington and Pickering Generating Stations are located on the traditional and treaty territory of the Michi Saagiig and Chippewa Nations, known collectively as the Williams Treaties First Nations. These Nations are the original stewards of the land and continue to uphold their responsibility to protect it.

Allan provided a reminder that September 30 is Orange Shirt Day. Orange Shirt Day is day to recognize and remember the impact of residential schools on Indigenous peoples in Canada. The orange shirt represents the story of survivor Phyllis Webstad, whose new orange shirt was taken from her on her first day at residential school.

Allan Grace provided added personal item to the land acknowledgment around an offering he received from the Michi Saagiig Nations during the DNGS Power Reactor Operating Licence hearing process.

Topic #2: Review of Minutes

No comments from the June minutes from the CAC members.

Ongoing action: to have CNSC present at a meeting

Ongoing action: Have Nicolle Butcher come to a CAC meeting.

Topic #3: Site Updates

Allan presented site updates for Darlington.

DNGS Update

- Part 2 of the CNSC hearing on the Darlington Licence Renewal took place on June 24 – 26. Expecting an outcome in September.
- Units 1, 2 and 3 operated reliably throughout the summer months.
- Unit 4 is in the final stretch of refurbishment
 - In late August, early September fuel load was started and completed.
 - Now testing equipment into the new year to bring the unit back online
 - Still proceeding on schedule and on budget.
- Isotopes
 - Darlington Unit 1 now has the capability of producing Co-60, our first harvest will take place during the Unit 1 planned outage in 2028. And this is just the beginning. Over the next several years, we'll expand Co-60 production across Darlington station. It's part of a bigger story about how we're leveraging our clean energy expertise to deliver broader benefits to society, from fighting climate change to improving public health.
 - In partnership with our subsidiary, Laurentis Energy Partners (LEP), we've expanded into the production of Molybdenum-99 (Mo-99), a medical isotope used in over 30 million procedures every year to detect illnesses such as

- cancer and heart disease. Until now, North America has relied almost entirely on imported Mo-99.
- Plans also continue for the commercial production of Yttrium-90 (Y-90) and Lutetium-177 from Unit 2, expected to begin in 2026.
 - **Question from Mary Novak:** Is there a market for the isotopes once OPG produces the isotopes?
 - **Allan Grace:** Yes, LEP has a market for the isotopes being produced at Darlington.
 - **Question from Mary Novak:** Has anything changed with the DNNP announcement from the Prime Minister?
 - **Allan Grace:** The announcement has no impact on the DNNP. However, this is important recognition from the federal government that the DNNP is a critical project that will help meet growing demand, create jobs and opportunities for Ontario and Canada's robust nuclear supply chain, and showcase our capabilities and expertise to the world to further grow our domestic industry while strengthening Canada's energy security.
 - **Question from Jennifer O'Meara:** How long will the molly 99 testing take?
 - **Allan Grace:** The testing will run into the new year; there is back and forth between OPG, LEP and the regulator to get the final approvals.
 - **Question from Sami Elhajeh:** LEP oversees the market portion, why is LEP taking this on instead of OPG.
 - **Allan Grace:** It allows OPG to focus on its priorities of operating and building safely.

Action to provide additional information on the medical isotope file.

Topic #3: 2024 Environmental Monitoring Program (EMP) Report

Lindsay Parks, Environmental Advisor, OPG presented a report on the 2024 Environmental Monitoring Program (Appendix 1).

The EMP scope encompasses protection of both the public and the environment from nuclear substances, hazardous substances, and physical stressors resulting from the operation of DN and PN sites, including the on-site waste management facilities.

Lindsay identified the critical groups associated with the DN EMP and spoke to any changes from 2023. They then provided some context associated with radiological doses using CNSC graphics.

The 2024 EMP results summary showed that 874 laboratory analyses performed for the dose calculation (e.g., air, water, fruits, vegetables, animal feed, eggs, poultry, milk, fish, sand). Dose calculations and annual report preparation were performed by an independent third party and reviewed and verified by OPG. The 2024 Darlington public dose (0.85 μSv) continues to be very low and is consistent with the 2023 dose (0.74 μSv). < 0.1% of annual regulatory limit of 1,000 μSv and < 0.1% of annual natural background radiation of 1,400 μSv .

The EMP report also stated that the station's radiological emissions remained at very small fractions of their regulatory limits.

- **Question from Jen O'Meara on slide 10:** Why is there increase in 2023?
 - **Lindsay Parks:** The Airborne HTO emissions in 2023 for DN were 5.3×10^{14} Bq. The increase observed in 2023 (compared to other years) was attributed to an adverse condition with the Tritium Immobilization System (TIS) at the Tritium Removal Facility (TRF), which was subsequently resolved. Corrective actions were taken to minimize further releases. Longer-term corrective actions are also in place, which include creating a cross-functional team to proactively address adverse conditions of the TRF, implementing a design change to improve the robustness of the TIS, and improving leak check processes and TRF equipment reliability.
- **Question from Cara Gregory on slide 11:** Why is there a peak at the start of the graph?
 - **Lindsay Parks:** The peak is most likely due to lake currents at that time.

Raphael McCalla prompted a conversation on how CNSC also does their own EMP report called the iEMP that is completely independent from OPG's.

Topic #4: 2024 Groundwater Monitoring Program (GWMP) Report

Raphael McCalla, Director Environment, Health & Safety, OPG, provided a presentation on the 2024 Groundwater Monitoring Program (GWMP) report (Appendix 2).

Raphael provided context as to why GWMP began and stated that the purpose of the program is to prevent impacts and monitor the groundwater around DNGS.

The GWMP has several key objectives, to verify groundwater flow direction to ensure consistency with historical patterns, monitor on-site groundwater quality to detect new issues promptly and assess historical concerns, and Monitor groundwater quality at the site boundary to confirm there are no off-site impacts.

The GWMP uses 75 different sampling locations and in 2024, it was found that the ground water flow direction remains consistent with previous years and there are no significant changes. The data indicated stability in groundwater quality across key areas and there were no adverse off-site impacts observed.

You can find the full groundwater report and Geographic Information System maps on OPG.com.

Topic #5: Darlington Public/Community Affairs Report

Lucas Curran, Sr. Communications Advisor presented a recap of summer 2025 activities.

OPG hosted their annual Tuesdays on the Trail program. With the support of OPG's community partners, this year's Tuesdays on the Trail lineup provided fun, free, and educational morning activities at Alex Robertson Park in Pickering and along the Darlington Waterfront Trail in the afternoon in Courtice for hundreds of attendees.

Over the summer and into September the Darlington team participated in events such as:

- Bowmanville Rotary Club's Street Easts Festival;
- Clarington Library, Museum and Archives Summer Reading Club launch and wrap up;
- Bowmanville Farmers Market;
- Municipality of Clarington Canada day event; and
- Orono Fair.

OPG was able to connect with thousands of people and families from across Clarington and the Durham Region.

The summer edition of the Neighbors Newsletter was released in early September. OPG's newsletter reaches over 270,000 residences within the areas of both Darlington and Pickering. The dates for the 2025/2026 Electrifying Education sessions were released on OPG.com.

OPG's annual Community Power Expo took place on September 20, over 4000 people came through doors, this year was the first time OPG held an event at both the Darlington and Pickering site.

Topic #6: Concluding Comments

Allan Grace expressed their appreciation to the Darlington CACs for the time and energy they devote to their discussions with OPG.

Action: Tour CHQ at the December meeting.

Next Meetings

Joint Community Advisory Council
OPG Corporate Headquarters
1908 Colonel Sam Drive, Oshawa, ON
Tuesday, Dec. 9, 2025
4 – 7:00 p.m.