

DNGS Community Advisory Council
Darlington Nuclear Information Centre
Tuesday, Jan. 28, 2025
Highlights

Emergency Preparedness Update

Marilena Michienzi presented an overview of OPG's Enterprise Emergency Management (EEM) program for 2025. She talked about drills and exercises undertaken by OPG and, in the unlikely event of a nuclear emergency, the roles of the province, municipalities and utilities.

Potassium Iodide (PI) Tablet Distribution Program

Philip Barrocas talked about potassium iodide (PI) and presented an update on the PI tablet distribution program. He noted the legislative regulatory requirements for PI tablet distribution. Philip also talked about Durham Health's extensive public awareness campaign and its use of social media.

Site Update

Allan Grace talked about the operating status of the four units at Darlington Nuclear. Unit 4 is in refurbishment which, when completed next year, will complete the refurbishment project at the plant. He also talked about forthcoming peer evaluations and emergency preparedness.

Darlington Licence Renewal Timeline

Leslie McWilliams talked about OPG's application for a renewal of Darlington Nuclear's operating licence, seeking a 30-year timeline. She outlined why such a timeline is appropriate for the station. A copy of the application had been sent to CAC members in advance of the meeting.

Community/Public Affairs Update

Lindsay Hamilton talked about recent and forthcoming OPG activities in the community. Darlington and Pickering employee donations to a food and toy drive in December, plant tours for outside organizations, and a Bring Back the Salmon hatchery launch at the station were among the items mentioned.

**DNGS Community Advisory Council
Darlington Nuclear Information Centre
Tuesday, Jan. 28, 2025**

CAC:

Jim Boate
Cara Gregory
Shiela Hall
Mary Novak (via Microsoft Teams)
Jennifer O'Meara
Heather Reid
Bonnie Wrightman

Regrets:

Bethany Dainton
Sami Elhajjeh
Pat Pingle
Penny Smith
Stacy Wanamaker

OPG:

Aditi Bhardway
Allan Grace
Lindsay Hamilton
Leslie McWilliams
Marilena Michienzi
Jessica Nash
Scott Preston

Durham Region Health Department

Philip Barrocas

Hardy Stevenson and Associates:

Francis Gillis
Dave Hardy

Topic #1: Health and Safety Moment

Following a Land Acknowledgment by Leslie McWilliams, Lindsay Hamilton talked about the importance of addressing the health and safety threats of winter:

- Know the symptoms of cold stress and dress properly for the weather.
- Prevent slip-and-fall accidents by clearing snow and ice from walkways and using anti-slip mats.
- Safeguard your air quality by ensuring proper ventilation and filtration.
- Back up utilities, technology, and data in case of power outages or disruptions.
- If you are sick, stay home.

Topic #2: Review of Minutes and Chair's Update

The joint Darlington/Pickering CAC minutes of Dec. 3, 2024 were approved without changes.

CAC Facilitator and Chair Dave Hardy noted that he and Council member Heather Reid presented the CAC intervention to the Canadian Nuclear Safety Commission (CNSC) hearing on Jan. 13 regarding OPG's application for a Licence to Construct the first small modular reactor (SMR) at Darlington.

Heather said that, in her presentation, she brought up the transparency of Ontario Power Generation in its discussions with the CAC and the diversity of Council member backgrounds. She noted that, on this occasion, the commissioners sat at the same table as the presenters, so that the proceedings were more like a conversation as opposed to previous hearings where the commissioners sat at a separate table like a tribunal. Everyone being at the same table seemed less intimidating, she said.

Dave noted that the commissioners got into a lengthy discussion about geological faults and the potential for earthquakes.

Dave said that, at the previous week's meeting of the Pickering CAC, there was a suggestion that the new OPG CEO be invited to a joint Darlington/Pickering CAC meeting. It was agreed that, henceforth, the minutes should include a running list of Actions, such as the CEO invitation and invitation to the CNSC, that are to be completed at a later date.

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.

Topic #3: Annual Emergency Preparedness Update

Marilena Michienzi, Manager Emergency Preparedness Implementation, presented an overview of the Enterprise Emergency Management (EEM) program for 2025 (Appendix 1).

Marilena presented the EEM mandate: To ensure OPG has adequate provisions for the preparedness and response capability to mitigate the effects of a nuclear emergency and protect the health and safety of the public, personnel and the environment.

She noted that OPG's Emergency Response Organization includes 1,200 trained members ready to leave their day jobs at the company to address an emergency.

She talked about the Ontario Nuclear Emergency Framework and the roles of:

- Province: authority for off-site emergency response and makes all public protective action decisions
- Municipalities: implement the response action directed by the province
- Utilities: quickly notify and transmit information to off-site parties when an event is occurring and deal with the on-site response

The Provincial Nuclear Emergency Response Plan (PNERP) determines the protective action to be used for public safety plus the requirements for all stakeholders. Provincial Public Actions include:

- sheltering in place;
- evacuations;
- ingestion of potassium iodide pills;
- ingestion control measures;
- and other actions.

The OPG Emergency Response Organization Structure is comprised of three scalable levels. Depending on the severity of the incident, various elements of the Emergency Response Organization—Strategic, Operational or Tactical—may be activated. Staffing is on an on-call basis.

Marilena talked about the OPG Drills and Exercise Program, which includes five drills annually at Darlington. A liquid emissions response exercise is always included. Every three years, alternating between Darlington and Pickering, OPG executes a full-scale exercise involving regional and provincial off-site authorities.

Marilena reviewed 2024 highlights, including drills, exercises and other activities. Among them was a very successful exercise at York University, including participation from 100 OPG staff and over 300 participants from the university, City of Toronto, Toronto Emergency Management and others. Other highlights included EEM participation in OPG's Community Power Expo and in framework meetings with the Hiawatha, Curve Lake and Alderville First Nations.

She also listed about a dozen 2025 priorities, among them: an exercise this month related to the EEM mobile monitoring and decontamination unit; continued support for

the emergency response capability of the Darlington Small Modular Reactor project; an emergency management performance evaluation by the World Association of Nuclear Operators (WANO); and continued improvement with how OPG engages with First Nations in the conduct of its Emergency Management program.

Exercise Unified Command 2025, an exercise involving municipal, regional and federal government organizations, will be conducted this year at Darlington.

Marilena, and Scott Preston, Director Emergency Management and Fire Protect, responded to Council questions:

- *In the exercises involving outside agencies, do you get adequate support?*
Marilena: Yes, they are always happy to support our exercises.
Scott: Yes, the Toronto Fire Department, and the Toronto and Durham Region police services show great support during drills and at points between drills.
- *Are there any concerns that they have enough support to effectively participate?*
Scott: We have formal agreements with each of those agencies. The majority of those agreements have just been renewed.
- *What type of social media do you use to inform the public?*
Marilena: Most of the information, particularly during an emergency, comes from the province. I'm not sure what media they focus on.
- *A lot of people are tied to their cell phones.*
Marilena: The first alert is on the phone. Alerts would also appear on Instagram and Facebook.
Scott: If your phone is connected, you can't ignore these alerts.
Dave noted that there is a lot of chatter about occurrences in the community on Facebook, so "there is an audience there."
Scott: Ontario Hydro participates in alerting the public; Ontario Hydro looks at the whole grid and crosses borders.

Topic #4: Potassium Iodide (PI) Tablet Distribution Program

Philip Barrocas, Senior Public Health Inspector, Durham Region Health Department, talked about potassium iodide (PI) and presented an update on the PI tablet distribution program. He also talked about the legislative requirements for PI tablet distribution and a public awareness campaign. (Appendix 2)

Philip noted that potassium iodide fills up the thyroid with stable iodine which prevents the uptake of radioactive molecules to decrease the risk of thyroid cancer. That risk is particularly high for children.

He talked about the legislative and regulatory requirements around the distribution of KI tablets.

He reviewed the active distribution of KI tablets to residents and businesses within 10 kilometres of the Pickering and Darlington stations (the Detailed Planning Zone (DPZ)). The distribution takes place through collaboration between OPG, Durham Health, Toronto Emergency Management and Canada Post. Over 200,000 KI tablet packages have been mailed to the DPZ.

He also reviewed the passive distribution of KI tablets to residents and businesses within 50 km of the stations. The PrepareToBeSafe.ca website features the ability to order tablets and provides KI information in English and nine other languages.

Philip talked about the KI public awareness campaign and KI advertising and social media activities, which have garnered above-average engagement rates.

He noted that the Durham Region Health Department manages a telephone inquiry line and assists with KI tablet orders. The department also provides in-house storage and maintains records for a stockpile of KI tablets to backfill supplies for institutions, first responders and pharmacies.

To date, approximately 4.5 million KI tablets have been distributed through Prepare to Be Safe and the New Neighbours Program. Approximately 97 percent of Prepare to Be Safe orders are from homes and three percent from businesses.

In 2024, orders for approximately 20,000 people were made through Prepare to Be Safe; businesses ordered for approximately 5,000 employees.

Philip and Scott responded to Council questions:

- *You said that approximately 4.5 million KI tablets have been distributed through Prepare To Be Safe (PTBS) and the New Neighbours Program. These are individual tablets?*
Philip: Yes. Each package includes 20 KI tablets.
- *You said that, in 2024, orders for approximately 20,000 people were made through Prepare To Be Safe and businesses ordered for approximately 5,000 employees. These numbers are great, but what percentage of eligible residents or businesses do these numbers represent?*
Philip: I can try to get some data on that. But every new resident identified in the New Neighbour's Program gets a KI package. This program uses data from Canada Post to identify any address changes.
- *You mentioned the nine different languages in which KI information is available (in addition to English). What is the best method of measuring the number of users of a particular language in the area? Do you use data from StatsCan?*
Philip: The Health Department has its own health analytics research team.

- *How do you address expiry dates on the tablets?*
Philip: We can redistribute tablets as the expiry date approaches.
- *Do you provide KI information and KI tablets to schools?*
Philip: We have provided KI information to schools, but we have not done presentations recently. That's something we can work on.
Scott: KI pills are supplied to schools, but they are most likely supplied at home.
- *How do you ensure you are not unduly alarming people in your communications?*
Philip: We partner with OPG in terms of language. We're not trying to scare anyone. We are very careful with our language.
Scott: There are very few, if any, circumstances where there is a fast release of radioactive molecules. The pace of a radioactive release allows plenty of time for proper preparation.
- *During an emergency, would KI pills be available through the emergency centre?*
Philip: In an emergency, the Provincial Operations Centre would determine the various routes of pills.
Scott: A total of six million pills are also available at pharmacies in Durham Region
- *We should tell our contacts in social media about the pills.*
I agree. Sharing information this way reaches many people; the more followers you have, the greater the spread of information.
- *Does the public have easy access to information about the pills and how to use them?*
Information on PrepareToBeSafe.ca is easy to follow.

Topic #5: Site Update

Allan Grace, Senior Vice President at Darlington Nuclear, presented a site update:

- Units 1, 2, and 3 are operating at or near full power.
- Unit 4 is in refurbishment, which is now 60 percent complete. With the completion of Unit 4 refurbishment next year, all four units at Darlington will have been refurbishment.
- Over a three-week period in December 2024, operators identified and stopped a Unit 3 leak of turbine lubricating oil. As a Category C spill, this leak was reported to the province and Environment Canada. To put the leak in context, the equivalent of two Olympic size pools of water flows through the plant pipes every minute. The oil leak was a cup every minute.
- WANO will be reviewing plant operations next week.

- A review team will look at Darlington's emergency preparedness during the last week of February. This team visits the site once every four years.

Surplus Baseload

Prior to this evening's meeting a Council member had raised a question:

If memory serves me correctly, some time ago we had an abundance of electricity and, when we tried to sell it to the U.S., apparently, we had to pay them to take it, as they really didn't need it. So my question is: if the provincial government decides to curtail delivery of energy to the US in retaliation to tariffs, do we have a plan in place to handle the excess energy?

OPG Response:

Surplus baseload generation (SBG) is managed by the Independent Electricity System Operator (IESO) and is a condition that occurs when baseload generation is expected to exceed Ontario demand. During SBG, the system is balanced via market mechanisms that may include exports, dispatching hydroelectric generation, dispatching variable generation, and nuclear manoeuvring or shutdown. Nuclear manoeuvring capability offered by Bruce Power supports system reliability by reducing the output of nuclear units by approximately 300 MW each. This capability provides valuable flexibility to the system during periods of low demand where surplus baseload generation exists, and also helps the IESO prevent nuclear shutdowns.

Ontario's electricity system, however, has changed. The days of significant surplus power are behind us, with demand growing steadily due to electrification and population growth. Ontario's electricity demand in 2024 was more than 140 GWh, which is the highest annual demand since 2013.

At this evening's meeting, Allan remarked that excess energy supply is not really an issue right now. If need be, OPG could temporarily take gas energy off line. But I don't see surplus energy occurring any time soon.

Topic #6: Darlington Licence Renewal Timeline

Leslie McWilliams, Deputy Site Vice President, talked about OPG's application for a renewal of Darlington Nuclear's operating licence, seeking a 30-year timeline (Appendix 3). While this request for a 30-year licence is a first for Canada, such timelines are more common in other jurisdictions.

Leslie stated that OPG has made its application in the context of:

- Demonstrated operational excellence and experience

- Robust technology and comprehensive oversight
- Commitment to long-term reliability and modernization

Leslie noted that WANO has evaluated Darlington Nuclear as an industry top performer.

Leslie listed a number of relicensing engagement opportunities for members of the public, including the CAC (see Appendix 3, Slide 5). Leslie also noted that Part 2 of a CNSC public hearing on the application to renew the operating licence for Darlington Nuclear will take place on June 24 – 26, 2025, and that the deadline for intervenor submissions is May 8, 2025. She asked: is the CAC interested in intervening?

Dave said that the Council would discuss this question later in the meeting.

Leslie, Lindsay Hamilton and Allan Grace responded to Council questions, including questions about specific items in the DNGS Power Reactor Operating Licence Renewal Application:

- *In your list of relicensing engagement opportunities, you mention stakeholder workshops on March 17 and a public information session on April 3. Is there enough time after April 3rd for all questions to be asked?*

Leslie: In addition to the stakeholder workshops on relicensing, we provided a presentation to the CAC last year, which included reference to conversations we had had with the public.

Lindsay: We started engagement with the public regarding relicensing in January of last year (2024). There will be time to answer any additional questions after April 3rd.

- *I don't recall outreach to the general public regarding licensing.*

Lindsay: We reached out to the public through the Neighbours Newsletter and Community Power Expo and made that information available to the public in other ways.

- *You said lengthy licence timelines are an accepted practice in other countries? And would there be periodic reviews of the licence?*

Leslie: Yes, 30-to-40-year licences are common in other countries. And, yes, there would be periodic reviews during the term of the licence.

- *Would there be opportunities for the host community to recommend changes during that 30 years?*

Leslie: There is annual regulatory oversight.

Lindsay: There is funding for interested parties to comment during the term of the licence.

- *If things are seen as not going well during the term of the licence, would Clarington have an opportunity to request a review?*

Lindsay: There would be opportunities for the host community to raise issues. All sorts of information about operations would be available on the OPG website.

OPG and the CNSC offer many opportunities for public comment during the term of the licence.

- *Will there be any formal review during the term of the licence?*

ACTION 3: Aditi Bhardway said she would take that question back to OPG for clarification.

There were also questions about OPG's application for a renewal of Darlington's operating licence, a copy of which had been forwarded to CAC members in advance of the meeting.

- *Regarding personnel training (application document, pp. 59 ff), can some of this training happen off-site?*

Allan: Training happens primarily on-site. Training in scientific fundamentals can happen off-site, but operators are trained on an on-site simulator.

- *Is there a role for other sites?*

Allan: Yes. There is Whitby radiation training and other facilities in Durham Region.

- *On pages 76 and 77, the document talks about transients (events that occur when a nuclear plant proceeds from a normal state to an abnormal state). Are such events reported to the public?*

(Allan explained transients ...)

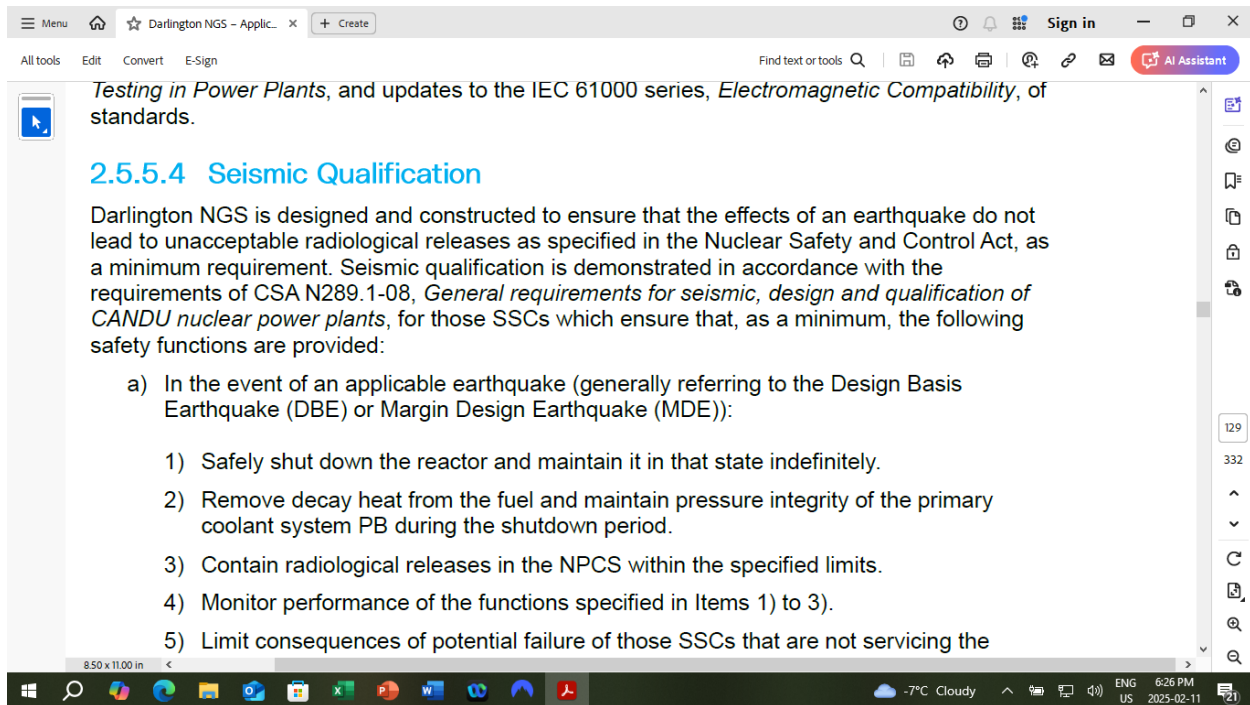
- *Is Darlington moving to AI (artificial intelligence)?*

Allan: There is no AI component in the actual operation of the plant, but we are using AI to explore ways to improve operations.

- *On page 118 of the document, there is a reference to Darlington's seismic qualification. To what seismic capacity is the station built?*

Leslie: The station is designed to withstand earthquakes.

Dave pointed out that the Application addressed seismology (see screen shot of the relevant section on the following page).



- *Pages 180 – 184 talk about Darlington’s radiological and conventional emissions to air and water. Are these releases reported to the public?*
Allan: An environmental report is made public once a year.
- *On page 277 (application document Appendix 3, Reference C-3) there is a reference to a Redacted Application for an amendment to the Darlington operating licence. What does “redacted” mean?*
[Leslie, can you provide an answer?]
- *The document talks about solid radioactive waste and radioactive oil being shipped to a licenced waste management facility for incineration. Where is this facility?*
Leslie: In Kincardine.

Topic #7: Community/Public Affairs Update

Lindsay Hamilton, Senior Manager Corporate Relations and Projects, followed up on an action recorded at the December joint meeting of the Darlington and Pickering CACs. She presented a video of flyover images of the small modular reactor (SMR) site taken in late fall. A more up-to-date video clip will be presented at the April meeting.

Lindsay noted that a CNSC decision regarding OPG’s application for a Licence to Construct an SMR at the Darlington site is expected in the next 90 to 100 days.

Lindsay talked about recent and forthcoming OPG activities in the community:

- In December, employees at the Darlington and Pickering sites donated an array of toys and a large selection of non-perishable food items to the Durham Regional Police Services annual food and toy drive. The food items made a big difference to food banks. In addition, the employees raised over \$21,500.
- On Dec. 30, the Darlington New Nuclear Project hosted a sponsored skate in Orono with 150 members of the community.
- Since the beginning of December, Darlington has hosted seven different tours, including groups such as the World Nuclear University, U.S. Consulate General, and the Clarington Economic Development team.
- A Bring Back the Salmon hatchery launch will take place at the Darlington Nuclear Information Centre on Jan. 27. Students from the Dr. G.J. MacGillivray Public School will attend, joined by the Ontario Federation of Anglers and Hunters.
- OPG's Electrifying Education program reached almost 3,000 students between Darlington and Pickering in 2024. Darlington plans to reach 2,000 students this year.
- OPG's annual March Break Blitz will take place March 10 – 14. OPG and community partners, such as Scientists in the Schools and Swim & Skate, will create a range of free educational programs.
- Neighbours Newsletter will hopefully be delivered by March 3rd.

Lindsay also made several announcements:

- Jan. 15, 2025 – The Ontario government has asked OPG to explore opportunities for new nuclear energy generation at their Wesleyville site, following expressions of interest from the Municipality of Port Hope and the Williams Treaties First Nations (WTFNs).
- Jan. 8, 2025 – Stephen Lecce, Minister of Energy and Electrification, Doug Ford, Premier of Ontario, OPG leadership and other elected officials joined together at the Darlington Energy Complex to outline Ontario's plan to achieve Am-Can energy security and drive economic growth and job creation in Canada and the U.S. as part of Fortress Am-Can.
- Jan. 6, 2025 – The Darlington team supported the filming commercial in our Darlington Simulator and Mock-up facility for the Province of Ontario.

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

Topic #8: Concluding Comments

Allan expressed appreciation for this evening's valuable discussion. The questions raised about the operating licence renewal for Darlington made him think about the importance of transparency.

Next Meeting

Darlington Nuclear Information Centre
Tuesday, April 22, 2025
4 pm – 7 pm