

PNGS Community Advisory Council
Pickering Nuclear Information Centre
Tuesday, Jan. 21, 2025
Highlights

Site Update

Paul Seguin talked about: the operating status of Units 5 to 8 and regulatory approval of their operation to the end of 2026; the removal of Units 1 and 4 from service; initial preparations for the refurbishment of Units 5 to 8, which will begin in 2027; OPG looking at its property in Wesleyville as a potential site for new large reactors; and other matters.

OPG Enterprise Emergency Management (EEM)

Ghulam Khawaja presented an overview of the EEM program for 2025. He talked about the Ontario nuclear emergency framework and the roles of the province, municipalities and utilities. He also talked about the emergency response structure within OPG and staff commitments. He detailed OPG's extensive program of drills and exercises.

Potassium Iodide (PI) Tablet Distribution Program

Philip Barrocas talked about the distribution of potassium iodide (PI) tablets and their possible use in the unlikely event of a nuclear emergency. (Potassium iodide fills up the thyroid with stable iodine, which prevents the uptake of radioactive molecules to decrease the risk of thyroid cancer.) Philip talked about the KI public awareness campaign and KI advertising and social media activities, which have garnered above-average engagement rates.

Public/Community Affairs Report

Analiese St. Aubin reviewed OPG's fall 2024 and forthcoming activities in the community. She talked about OPG's Electrifying Education program, a very successful food and toy drive at Pickering and Darlington stations, a Bring Back the Salmon hatchery at Pickering Nuclear on Jan. 28, plans for March Break Blitz, and other activities.

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Pickering Nuclear Information Centre
Tuesday, Jan. 21, 2025**

CAC:

Craig Bamford
Pam Collins
Frank Dempsey
Nicholas (Nick) Fontana
Mary Gawen
Bill Houston
Tim Kellar
Pat Mattson
Tavis Nimmo
Peter Ottensmeyer
Dan Shire

Guest:

Shireen Whitmore

Regrets:

Tracy MacCharles
Sean McCullough
Eric (Zhen) Qin
John Simpson
Nick West

OPG:

Ghulam Khawaja
Parisa Mahdian
Paul Seguin
Analiese St. Aubin

Durham Region Health Department

Philip Barrocas
Paulo Correia

Toronto and Region Conservation Authority (TRCA)

David-Angelo Williams

Hardy Stevenson and Associates:

Francis Gillis

Dave Hardy

Topic #1: Health and Safety Moment

Following a Land Acknowledgment, Senior Vice President Paul Seguin talked about the particularly cold weather we are now experiencing. He talked about the importance of: dressing for the weather; clearing snow and putting road salt on walkways around the home; ensuring proper ventilation on heating devices used in the home; being prepared for possible power outages; and monitoring the weather and adjusting travel times accordingly. "If you're sick, stay home," he said.

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

The minutes of the joint meeting of the Pickering and Darlington Community Advisory Councils on Dec. 3, 2024 were approved without changes. A Council member noted that the minutes stated that aerial views of the SMR site at Darlington are reported on monthly, and that OPG would bring a video of these aerial views to the January meeting. (The SMR map and flyover video can now be linked at:

<https://youtu.be/iRQDNSO6FLk?si=hxv0XLzqMixTnDbu>)

It was agreed that a list of running items should be maintained for actions to be completed in the future. Two such items are:

- Invite CNSC staff to a future meeting
- Invite the new OPG President and CEO to a joint meeting of the Pickering and Darlington CACs.

CAC Chair/Facilitator Dave Hardy noted that he and Council member Heather Reid presented the Darlington CAC intervention at the Canadian Nuclear Safety Commission (CNSC) hearing on Jan. 8. The intervention was well received by the Commissioners.

Topic #3: Site Update

Paul Seguin presented an update on OPG and the Pickering site:

- Nicolle Butcher became OPG's President and Chief Executive Officer on Jan. 1. Her former position as Chief Operations Officer is now filled by Shelley Babin.
- Units 5, 6, 7 and 8 are operating at or near full power,

- Unit 4 was removed from service permanently on Dec. 31.
- We have started defueling on Unit 4 using lessons learned from defueling of Unit 1. Defueling will be completed by early spring, to be followed by de-watering. Pickering Nuclear is now a four-unit station, with a total output of 2,100 megawatts, which is 10 percent of Ontario's electricity.
- OPG recently received CNSC approval to extend operation of Units 5 to 8 to the end of 2026. At that point, the four units will be shut down and prepared for refurbishment. OPG will start refurbishment in January 2027.
- Last week there was a brief unplanned outage of Unit 6 to replace a damaged fuel channel latch and refuel a channel. While the unit was offline, we also took the opportunity to replace some batteries.

Paul responded to a Council question:

- *Is the water in Units 1 and 4 contaminated on the nuclear side?*
Yes. That water is drained and stored as radioactive. It will be used in other units.

Paul talked about the need for OPG to apply to the CNSC to amend its current operating licence to address refurbishment or to opt for a new licence. OPG has chosen to apply for a new licence. While Darlington is applying for a 30-year licence, Pickering is going for a 10-year licence for faster resolution. Pickering is also looking to combine the station operating licence and the waste facility operating licence into one licence for the entire site, a change that the CNSC supports. OPG will be looking for approval of the combined licence by early 2027.

Paul also talked about preparations in 2025 for refurbishment allowed under the current licence in relation to facilities and infrastructure:

- There will be barges back on the lake in the spring to complete geotechnical assessments that we didn't have time to complete in the fall. These will again be visible to the public. As we did in the spring, we will include information about this in our next Neighbours newsletter, which is scheduled for distribution in early March.
- In the spring we will also complete some onshore drilling work to complete similar assessments.
- This spring we will start to construct some parking lots along Montgomery Park Road.
- We will be adding a new entrance to the plant and sally port at west side of the property, Sandy Beach/Montgomery Park, in the fall.

- We are working closely with the City of Pickering, Region of Durham and other partners to schedule and complete these projects.

Paul responded to a Council question about the possibility of an earthquake in Durham Region:

- *Is there a geological fault under Lake Ontario?*
We are not looking for such a fault, as the geology of this part of Ontario is very stable. But the station is designed for the worst possible seismic event. We have also drawn lessons from Fukushima; that event was caused by a tsunami triggered by an underwater earthquake. OPG Pickering has invested in extra generators in case of an event beyond what the station was designed for. (Ghulam Khawaja noted that OPG incorporates any current safety analysis.)

Paul continued:

- The province has asked OPG to look into Nanticoke, Lambton and Wesleyville as possible sites for future nuclear facilities. Subsequently, the province asked us to take consideration of Wesleyville to the next step, including a more in-depth conversation with the local Indigenous and business communities. The Wesleyville site offers an attractive size, room for up to 10,000 megawatts of generation. As well, there are already transmission lines in place at Wesleyville. This is not to say that we won't look at Nanticoke and Lambton.

Paul responded to Council questions:

- *What is the location of Wesleyville?*
The site is in Port Hope, just south of the lake.
- *Will SMRs be built there?*
No, we're looking for large reactors at the site.
- *But that's a much more costly project, isn't it?*
The total cost is more, but we'll be getting much more electricity.
- *When you take down Units 1 to 4 at Pickering, will you be maintaining that land as zoned for reactors?*
We are looking for the potential for that land much further down the road.
- *When will you be dismantling and removing the retired reactors?*
The four units will sit there during refurbishment. Regular sampling of the groundwater, etc., will continue in the meantime.

Topic #4: OPG Enterprise Emergency Management (EEM)

Ghulam Khawaja, Senior Manager Emergency Preparedness, presented an overview of the EEM program for 2025 (Appendix 1).

Ghulam 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.

He 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.

He 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.

Ghulam talked about the OPG Drills and Exercise Program, which includes 10 drills annually to evaluate every duty response team at Darlington and Pickering as well as several additional focused drills. Every three years, at each of Darlington and Pickering, OPG executes a full-scale exercise involving regional and provincial off-site authorities.

Ghulam reviewed 2024 highlights, including drills, exercises and other activities. He also listed about a dozen 2025 priorities, among them: an exercise related to the EEM mobile monitoring and decontamination unit; continued support for the emergency response capability of the Darlington Small Modular Reactor project; and emergency management performance evaluation by the World Association of Nuclear Operators (WANO). Exercise Unified Command 2025, an exercise involving municipal, regional and federal government organizations, will be conducted at Darlington.

Ghulam responded to Council questions:

- *Is there a level of redundancy in your emergency management?*
Yes, we have backup staff for our emergency response activities.
- *What are the websites for the CNSC emergency response document and P-NERP?*
The CNSC Nuclear Emergency Preparedness and Response document can be linked at [Consultation](#) (scroll down to REGDOC-2.10.1). There was a public consultation (now closed), and the linked information includes a list of proposed changes to the regulatory document.
The Provincial Nuclear Emergency Response Plan (PNERP Master Plan) can be linked at <https://www.ontario.ca/document/provincial-nuclear-emergency-response-plan-pnerp-master-plan>.
- *Does your Emergency Response Organization use Artificial Intelligence (AI)?*
We use AI internally regarding trends and for equipment maintenance. Otherwise, no.
- *How do you maintain cyber security?*
We are building resiliency into our program and responsiveness to potential cyber attacks.

Paul remarked that the potential for cyber attacks has been a concern at OPG for some time. He emphasized that OPG operations systems are completely separate from the Internet.

Ghulam answered an additional question:

- *There is a lot of public skepticism regarding traffic studies. They are seen as optimistic, even science fiction.*
We know that population density has changed. Our studies are updated every five years. We look at a combination of factors (see www.OPG.com) and consider best- and worst-case scenarios. We submit our plans for review by stakeholders and the government.

Topic #5: 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.

He reviewed the active distribution of KI tablets to residents and businesses within 10 kilometres of the Pickering and Darlington stations.

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 different 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 responded to Council questions:

- *What happens when the tablets reach their expiry dates?*
As the tablets get close to their expiry date, we have programs to re-supply.
- *Surely KI tablets remain effective after their expiry dates.*
(Parisa Mahdian, Senior Manager Projects, said that, regardless, OPG and the Health Department would act on the manufacturer's expiry date. Paulo Correia added that, after the expiry date, the manufacturer won't guarantee the safety and efficacy of the tablets.)
- *What if someone is already receiving iodide pills.*
We would suggest they speak to their physician regarding KI tablets.
- *Is KI tablet information available in other languages?*
Yes, it's available in nine other languages, and we will be adding languages as required.
- *How radioactive are the tablets? Though I note there are repair mechanisms in the body to deal with that.*

(Parisa noted that KI pills are natural products; they meet natural health product standards. Paul Correia noted that KI tablets focus on one type of radioactive exposure.)

- *Once you reach a certain age, aren't KI tablets useless?*
In the unlikely event of a nuclear emergency, it's advisable for all people to take the tablets when instructed to do so by the Chief Medical Officer of Health.

Topic #6: Public/Community Affairs Reports

Analiene St. Aubin, Senior Manager Stakeholder Relations, talked about several recent events during a busy time for her and her team:

- Pickering Nuclear finished its last Electrifying Education program of 2024 at Pickering High School, reaching over 100 students. Over the course of 2024, the program reached a total of 3,000 students between Darlington and Pickering. One school visit per month is planned for this year.
- The Food and Toy Drive at Pickering and Darlington was completed on Dec. 18. The sites collected toys for all ages and a large collection of non-perishable food items. As well, the stakeholder relations teams raised over \$21,000 for the cause.
- On Jan. 9, members of the Ajax-Pickering Board of Trade came to the Pickering Nuclear Information Centre for their annual Coffee Connect, a networking event organized by the board.

Analiene also talked about upcoming events and activities:

- At the Bring Back the Salmon hatchery launch at Pickering Nuclear on Jan. 28, Grade 3 students from Duffin Bay Public School will be coming to the Pickering Information Centre.
- For the March Break Blitz on the Pickering Nuclear site this year (March 10 – 14), OPG and its community partners will be creating some fun, free educational programs for kids. We expect one to two thousand people to attend.
- The next issue of Neighbours Newsletter will be distributed in early March.

Topic #7: Concluding Remarks

Paul expressed appreciation to CAC members for their attendance and raising of important questions.

Next Meeting

Pickering Nuclear Information Centre

Tuesday, April 15, 2025

4 pm – 7 pm