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Emergency Preparedness Update

Community Advisory Council

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Agenda

- 1 | EEM - Overview
- 2 | Highlights from 2025 Drills and Exercises
- 3 | Business Continuity Update
- 4 | KI Update
- 5 | Looking Ahead



OPG's Approach to Nuclear Emergency Preparedness

- OPG's emergency preparedness program is built to meet the requirements of REGDOC-2.10.1 and the Provincial Nuclear Emergency Response Plan (PNERP).
- A dedicated Emergency Response Organization (ERO) is always ready, with trained staff assigned around the clock.
- Specialized emergency management centres at each site and at the corporate level support coordinated response and decision-making.
- Regular drills and live exercises test our plans, keep skills sharp, and ensure compliance with strict regulatory requirements.
- Our approach meets or exceeds all federal and provincial standards, with a focus on protecting people, the environment, and public confidence.



2025 Drills and Exercises – Achievements

Pickering and Darlington each completed four nuclear emergency drills and one full site assembly drill

- Drills confirmed strong coordination and high performance by the ERO and support staff.
- All site staff were accounted for within required timelines.

Transportation Emergency Response Plan Exercise

- Darlington teams managed a simulated transportation incident involving nuclear material.
- Staff followed protocols for containment, communication, and safety, meeting all exercise objectives.

Radioactive Liquid Emission Drills

- Both sites conducted drills simulating accidental liquid emissions.
- Teams demonstrated quick detection, reporting, and management of potential releases, ensuring environmental protection.

Emergency Preparedness Performance Evaluations (EMPE)

- In 2025, OPG participated in Emergency Preparedness Performance Evaluations (EMPE) at both Darlington and Pickering – Evaluation lead by World Association of Nuclear Operators (WANO)
- WANO experts and industry peers focused on fire protection, emergency preparedness, includes observation of nuclear emergency drill, facility walkdowns, staff interviews, and review of internal procedures and reports.

Key Takeaway

- OPG's emergency preparedness programs meet high standards.
- We are building on positive feedback and acting on opportunities for continuous improvement.

Exercise Unified Command 2025 – Scope and Participation

- Nearly 500 participants from OPG and 11 partner organizations took part in a full-scale, two-day nuclear emergency drill at Darlington Nuclear Generating Station.
- The exercise spanned more than a dozen locations, testing real-time coordination and emergency response plans.
- Participating organizations included:
 - Ontario Power Generation, Canadian Nuclear Safety Commission, Provincial Emergency Operations Centre, Durham Region, City of Oshawa, City of Peterborough, City of Toronto, Municipality of Clarington, Town of Ajax, Town of Whitby, and the Nuclear Insurance Association of Canada.
- The scenario challenged all teams to ensure systems, communications, and decision-making would work together smoothly in a real emergency.

Exercise Unified Command 2025: VIP Tour and First Nations Engagement

- On the second day, a VIP tour brought together representatives from the Michi Saagiig Nations of the Williams Treaties First Nations, senior government and regulatory officials, including Ontario's Minister of Emergency Preparedness and Response, Jill Dunlop, municipal leaders, and industry peers.
- Indigenous community leaders and VIPs saw OPG's emergency planning and collaboration with all partners first-hand.
- Their participation reinforced OPG's commitment to open dialogue and strong, respectful relationships with Indigenous and local communities.

GridEx VIII – Grid Security Exercise

- On Nov. 18, 2025, over 150 OPG employees joined GridEx VIII, North America’s largest electricity grid security exercise, organized by NERC.
- OPG teams worked alongside IESO, Hydro One, Bruce Power, and other Ontario partners.
- The exercise featured realistic, escalating scenarios involving both cyber and physical threats to the grid.
- Throughout the day, participants showed resilience and adaptability, working side by side to ensure grid reliability and public safety.
- The exercise strengthened coordination among Ontario’s energy leaders and reinforced the need to stay ready for any crisis affecting the province’s power supply.
- A comprehensive review is underway. Lessons learned will be used to update and enhance emergency response plans, ensuring OPG and its partners are even better prepared for real-world challenges.

Business Continuity Program

- OPG's Business Continuity Program ensures critical operations continue during any disruption.
- In 2025, OPG reviewed and updated business continuity plans across all sites and functions to address new risks and best practices.
- The program was strengthened by integrating Institute of Nuclear Power Operations (INPO) Resilience standards and comprehensive ransomware preparedness planning.
- In 2026, we are focused on continuous improvement, regular testing, and training to stay ready for emerging threats.

KI Pill Distribution Program Highlights

- **Total Distribution:**
~4.7 million KI Pills have been distributed since 2015.
- **New Neighbours (2025):**
Approximately 100,000 pills distributed through the new neighbours program.
- **Preparetobesafe.ca Orders (2025):**
Approximately 150,000 KI Pills ordered from Preparetobesafe.ca.
- **Monthly Average Orders:**
Preparetobesafe - 535 orders per month
New Neighbours - 440 orders per month
- **Growth:**
Preparetobesafe.ca orders up by about 25% from 2024.



2026 KI Replacement Project Highlights

- 01** KI pills distributed to homes and businesses in 2015 are set to expire in 2027
- 02** Replacement distribution will occur ~March–July 2026
- 03** Delivery to all addresses within the 0-10k zone of PNGS and DNGS ~162,000 homes and businesses included



ONTARIO POWER GENERATION DURHAM REGION TORONTO

Being prepared is staying safe.
Keep an eye out for your KI pills in the mail.

KI Replacement Project Components

- Continuous collaboration with Durham Region, City of Toronto and OPG
- Updated KI Branding and Materials
- KI Procurement – New Vendor
- Distribution -Detailed Planning Zone (0-10k)
- Communications Campaigns
- Disposal Guidance



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Pickering Site Transition

- Pickering 014 is now in Safe Storage, and Pickering 058 is preparing for refurbishment.
- The Emergency Response Organization (ERO) will remain in place with minimal changes - All ERO staff retain their qualifications.
- The Emergency Operations Centre (EOC), Site Management Centre (SMC), and Corporate Emergency Operations Facility (CEO) continue to operate with only minor procedural updates.
- The drill and exercise program will continue, with creative modifications as needed.
- The next major Pickering exercise is scheduled for 2028.

Looking Ahead to 2026

- Continue building readiness through regular drills, training, and program improvements.
- Implement lessons learned from 2025 evaluations and exercises across all sites.
- Advance business continuity and cybersecurity initiatives to address emerging risks.
- Maintain strong engagement with community partners, regulators, and Indigenous leaders.
- Support Pickering 058's refurbishment and ensure seamless emergency preparedness during transitions.

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