



## **Durham Nuclear Health Committee (DNHC)**

**Friday, February 2, 2024**

**1:00 p.m.**

**Virtual**

Please note: All members of the public may view the Durham Nuclear Health Committee Meetings via live streaming at <https://www.eventstream.ca/events/durham-region>.

All information and materials sent to Durham Regional Committees will become part of the permanent public record. This includes presentations and oral submissions made during meetings. A video recording of the meeting will be posted on our Regional website. If you have any questions about the collection of information, please contact [dnhc@durham.ca](mailto:dnhc@durham.ca).

**1. Adoption of Agenda**

**2. Adoption of Minutes**

**2.1 Durham Nuclear Health Committee meeting - November 17, 2023**

**3. Correspondence**

**3.1 Darlington Nuclear Community Advisory Council, Notice of Participation at the Canadian Nuclear Safety Commission (CNSC) Public Hearing 2024-H-02 and Written Submission**

Received from Francis Gillis, Hardy Stevenson and Associates Limited on December 13, 2023; a copy of the submission to the CNSC which outlines the Darlington Nuclear Community Advisory Council's (CAC) intent to appear at the Public Hearing 2024-H-02 and to provide the associated written submission to support the applicability of the Darlington New Nuclear Project Environmental Assessment and Plant Parameter Envelope to the Selected Reactor Technology, the General Electric Hitachi (GEH) BWRX-300 reactor.

**3.2 Additional information to support CNSC November 17, 2023 DNHC presentation**

Information received from Nicole Simon (Senior Project Officer, Advanced Reactors Licensing Division, CNSC) on December 21, 2023 and emailed to the Committee on December 22, 2023.

**4. Presentations**

**4.1 Potassium Iodide (KI) Tablet Distribution Program**

Presented by Sendi Struna, Manager, Health Protection Division, Durham Region Health Department

**4.2 Durham Emergency Management (DEM) Nuclear Emergency Preparedness Program**

Presented by Mary La Chapelle, Acting Deputy Director, DEM

**4.3 Progress Report by Ontario Power Generation (OPG) concerning its Significant Nuclear Emergency Preparedness Activities in 2023 and its Plans for 2024 in Durham Region**

Presented by Marilena Michienzi, Section Manager, Site Emergency Preparedness Implementation, OPG

**4.4 Updates by Emergency Management Office (EMO), concerning its Significant Nuclear Emergency Preparedness Activities in 2023 and its Plans for 2024 in Durham Region**

Presented by Michael Munro, Senior Manager, Nuclear, Radiological & Scientific Response Programs, EMO

**5. Communications**

**5.1 Community updates from Pickering and Darlington Nuclear Generating Stations**

Presented by Lindsay Hamilton, Senior Manager, Corporate Relations and Projects, Corporate Affairs, OPG

**6. Other Business**

**7. Next Meeting**

**7.1 April 19, 2024, 1:00 PM**

Virtual

**8. Adjournment**

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# Potassium Iodide (KI) Tablet Distribution Program



Presented by Sendi Struna, Durham Region Health Department  
Durham Nuclear Health Committee 2024



# Presentation Agenda

1. Potassium Iodide tablets
2. Legislative requirements
3. KI Tablet distribution program
4. Public Awareness Campaign



# Potassium Iodide (KI) Tablets

- Fills up the thyroid with stable iodine which prevents the uptake of radioactive molecules to decrease the risk of thyroid cancer
- Do not need to take tablets unless instructed to do so by the Chief Medical Officer of Health
- Tablets are available at all reception, evacuation and emergency workers centres





# Background

## 2009 Provincial Nuclear Emergency Response Plan:

- Requirement for designated municipalities to have a plan to facilitate the availability of KI tablets for DPZ
- Stipulated that nuclear installations “...shall procure, in advance, adequate quantities of KI for the DPZ population for use during a nuclear emergency”





# CNSC Requirements REGDOC - 2.10.1

Licensing Requirement – Nuclear Generating Station (NGS):

## Detailed Planning Zone (DPZ) ~10 km radius

- All household, institutions and businesses within 10 km of NGS be provided with KI tablets by December 31, 2015

## Ingestion Planning Zone (IPZ) ~50 km radius





- Availability of KI tablets to anyone residing within 50km of nuclear generating stations who wish to obtain a supply



# Active Distribution to Residents and Businesses within 10km of PNGS/DNGS

- Collaboration between OPG, DRHD, TOEM, Canada Post
- Fall 2015 over 200,000 KI tablet packages mailed to DPZ

**New to Durham Region?**




|   |   |
|---|---|
|  |  |
|  |  |

**Quick Facts:**

- Durham Region has two nuclear power stations; Pickering and Darlington
- In the highly unlikely event of a nuclear emergency, potassium iodide (KI) tablets are key to keeping you safe
- Anyone living or working within 10-kilometres of either nuclear station should have a supply of KI tablets
- KI is also available to those within 50-kilometres of both nuclear stations

Visit [preparetobesafe.ca](http://preparetobesafe.ca) to order your FREE supply of KI tablets and for more information or call Durham Region Health Department Environmental Helpline at 905-723-3818, 1-888-777-9613.

**There is no such thing as being too prepared.**



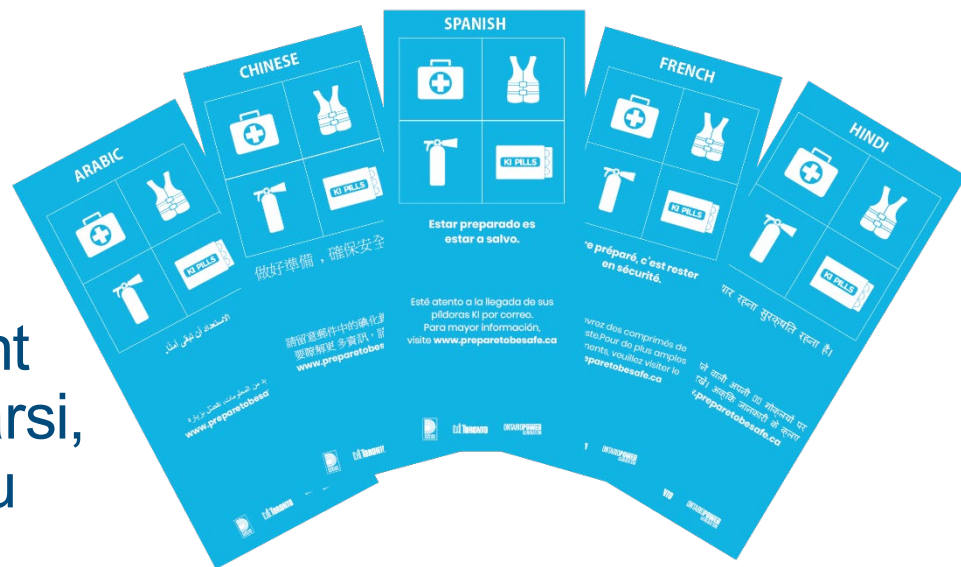


# Passive Distribution to Residents and Business within 50km of PNGS/DNGS

## 1) PrepareToBeSafe.ca website

### Site Features:

- Locator
- Ability to order tablets
- KI information available in English and 9 different languages including: Farsi, Tagalog, Tamil and Urdu



## 2) Designated Pharmacies



# Distribution to First Responders & Institutions

## KI Tablet Replacement - Health Department Lead

- Jan 2019 – approx. 260,000 new KI tablets distributed to first responders and institutions
- This supply will expire 2029
- Pre-distribution of KI recognized as a good practice by IAEA





# KI Public Awareness Campaign



January, May,  
September



Target Audience -  
residents &  
businesses in DPZ  
and IPZ



Variety of platforms  
used



4 YouTube Videos  
created



Translations in  
10 languages



# KI Campaign



Print Media



Radio



Transit



Social Media

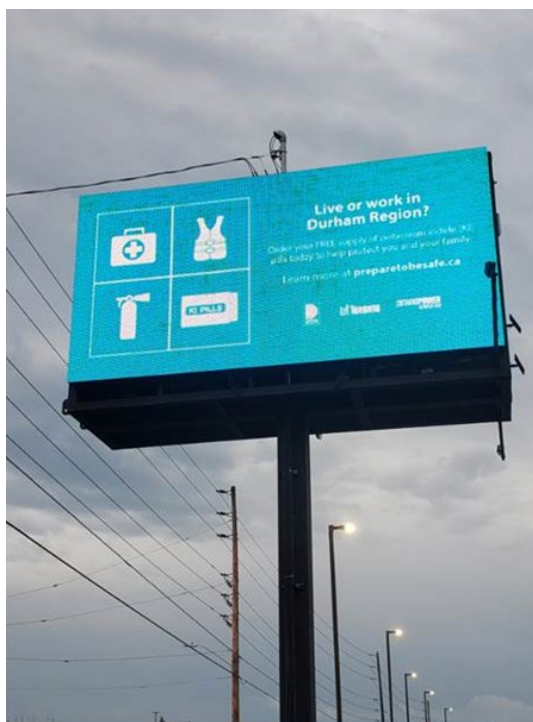


Physician Outreach





# KI Advertising and Social Media



Durham Region Health Department  
May 24, 2023 · 🌐

Got Yours?

If you live within 50 km of the Pickering or Darlington nuclear plants, you can order a FREE supply of potassium iodide (KI) tablets.

Learn more [durham.ca/KI](https://durham.ca/KI)

**New to Durham Region?**

Visit [preparetobesafe.ca](https://preparetobesafe.ca)

Anyone within 50-kilometres of the Pickering or Darlington nuclear stations can order a FREE supply of potassium iodide (KI) tablets.

**There is no such thing as being too prepared.**

DURHAM.CA  
**Nuclear Awareness**  
Nuclear awareness information for Durham Region. Learn more about KI pill...

14
3 comments 5 shares

Like Comment Share





# Durham Region Health Department Role



- Manage telephone inquiry line and assist with KI tablet orders



- Provide in-house storage

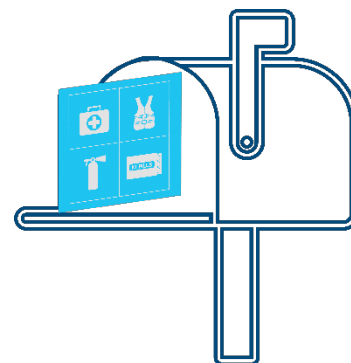


- Maintain records for stockpile of KI tablets to backfill supplies for institutions, first responders and pharmacies



# KI Order Requests

- 4,200,000 KI tablets have been distributed through PTBS and New Neighbours
- Approximately 97% of PTBS orders are from homes and 3% from businesses
- 1,219 business – enough for 66,752 employees
- 29,505 homes – enough for 85,026 adults and 27,254 children





# Thank you







# Nuclear Emergency Preparedness Program

Durham Emergency Management

# Agenda

1. Nuclear Program Activities
2. 2024 Plans



# 1. Nuclear Program Activities



**Nuclear  
Plans**



**Training**



**Exercises &  
Drills**



**Committees  
& Working  
Groups**

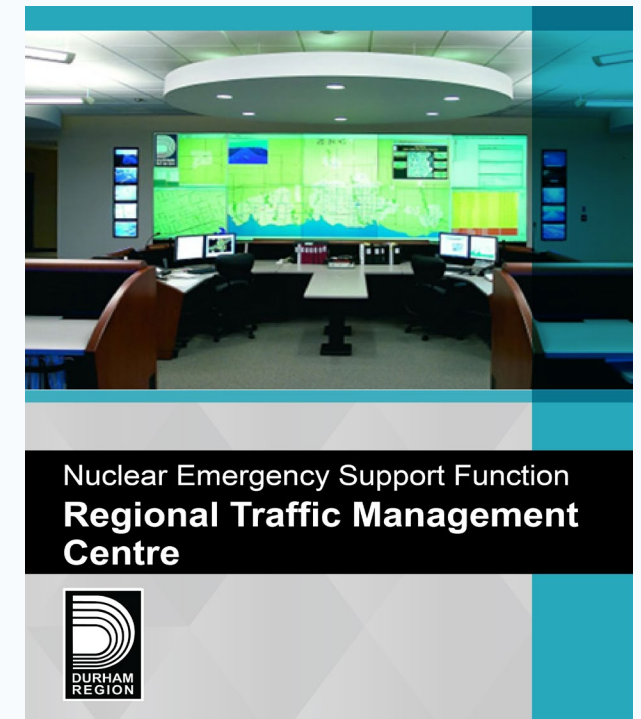
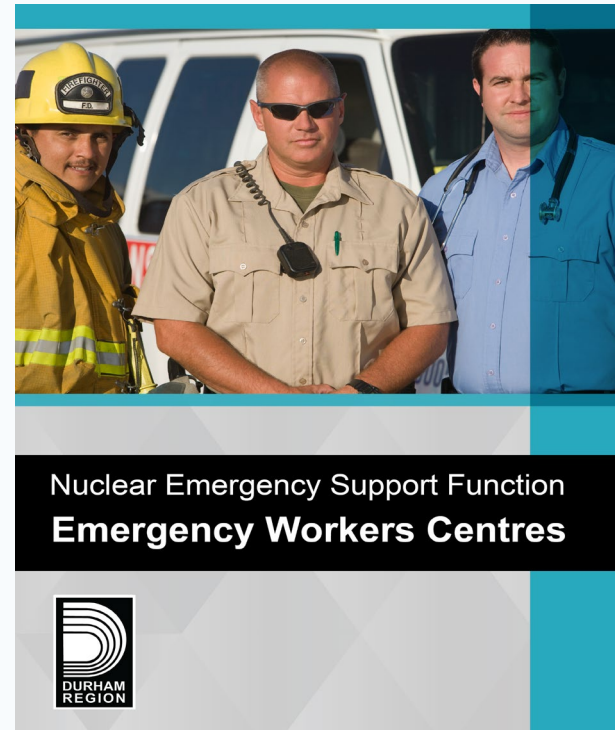
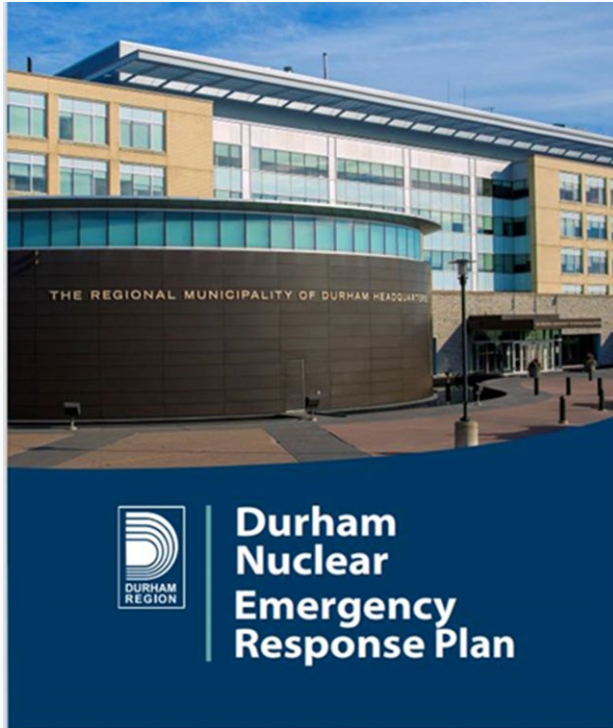


**Public  
Education &  
Awareness**



**Public  
Alerting**

# Nuclear Plans



# Training

EM:100



Emergency  
Management  
Foundations

EM:200



Nuclear Emergency  
Management:  
The Risk, Planning Basis  
& Response Structure

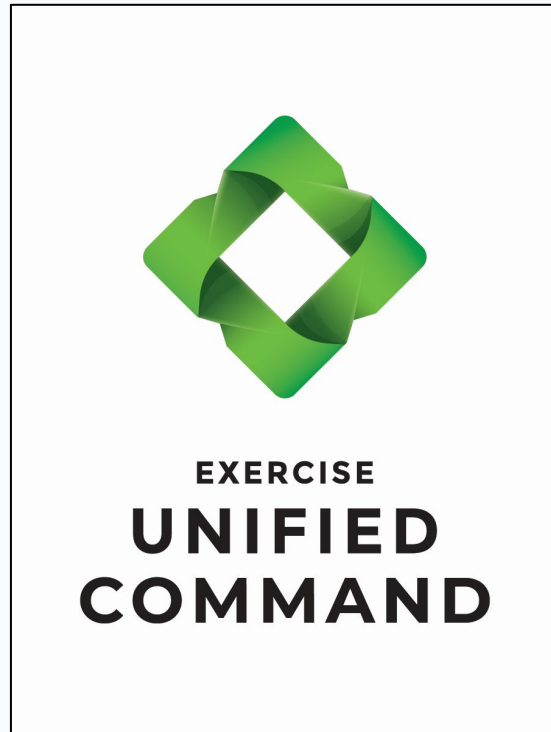
EM:300



Working in the  
Regional Emergency  
Operations Centre



# Exercises & Drills



Nuclear - September



Cyber Security – October



Tritium Drill – November

# Nuclear Committees & Working Groups

## Regional

- Durham Region Nuclear Emergency Management Coordinating Committee
- Nuclear Sector Working Group
- Durham and Toronto EM Working Group
- Durham, Toronto, OPG Public Education Working Group
- Durham Evacuation Planning Team
- DNHC

## Provincial

- NEMCC Main Committee
- NEMCC Transportation Subcommittee
  - Mapping Working Group
  - ETE Working Group
- NEMCC Public Education Subcommittee
- NEMCC KI Working Group
- EPREV Provincial Working Group

## Federal

- EPREV Steering Group
- CSA N1600 Technical Committee
- CNSC KI Pill Working Group
- CNSC Hearings

## OPG

- ETE Studies
- Exercise Planning:
  - Steering Committee
  - Evaluation Working Group
  - Communications Working Group
  - Joint Exercise Planning Team
  - Scenario Development Working Group

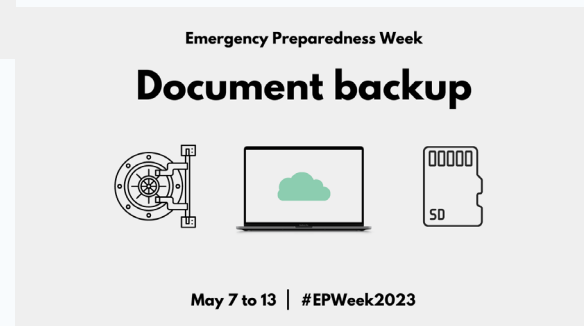
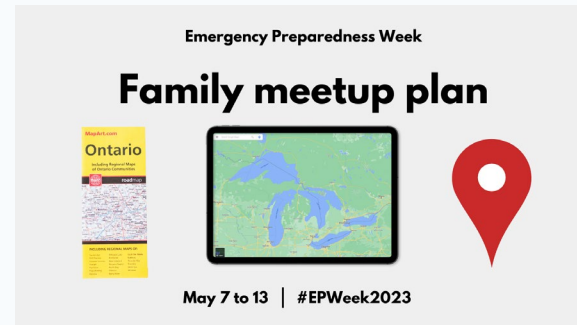
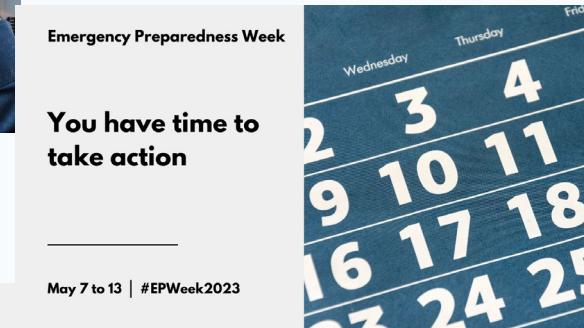
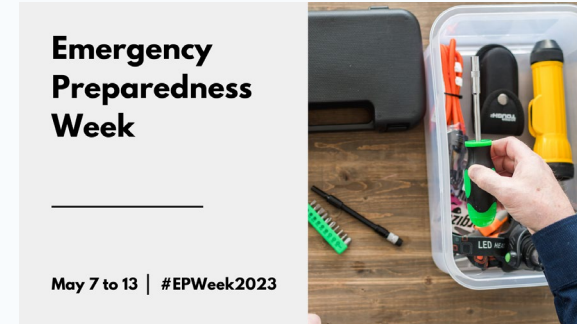


# Public Education & Awareness

## Emergency Preparedness Week

Durham's tactics focused on the following:

- Time to take protective action
- Educate people on how they will be notified of a nuclear emergency
- Have a family meet-up spot out of town
- Have important documents backed up and saved in a safe place



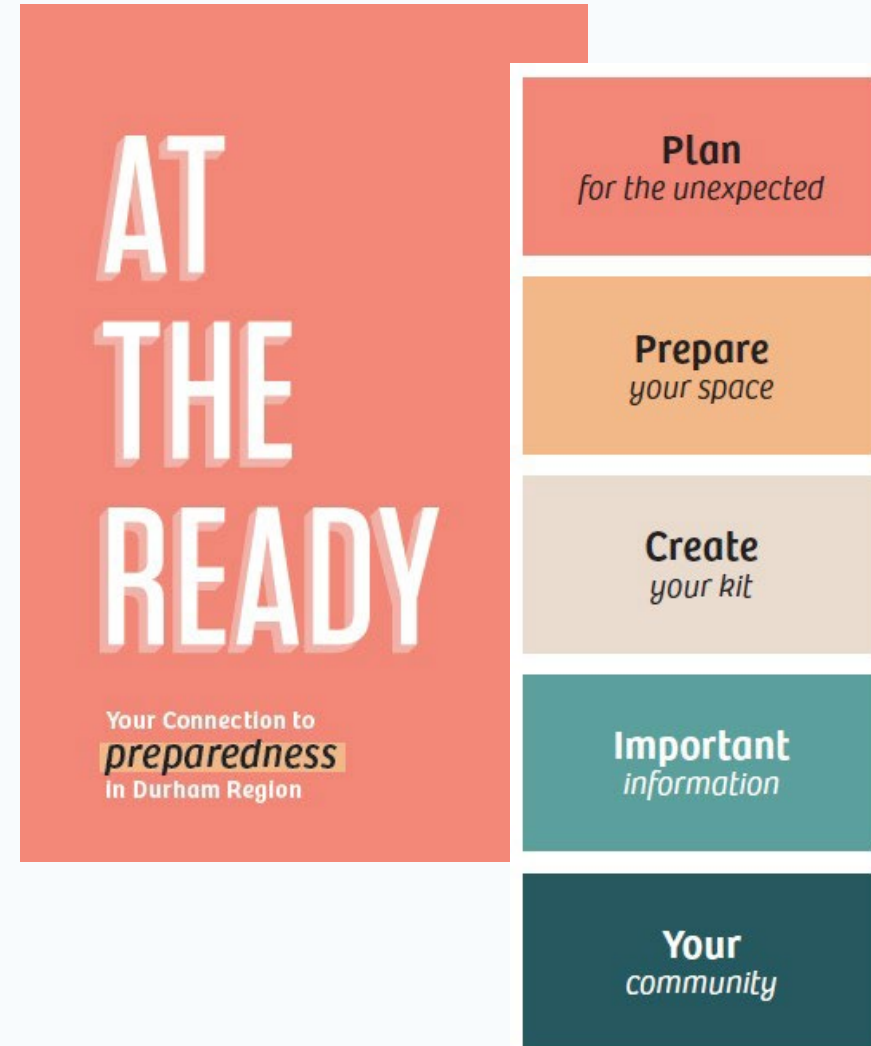
# Public Education & Awareness Continued

## At The Ready

- Official launch of At the Ready during EP week.

## Community Events

- VON Durham Hospice Services
- Health fairs at Regional LTCFs
- OPG Open House



# Public Alerting Campaign

- The target audience for the campaign are people who live, work, play, or go to school within 10 km of the Darlington & Pickering NGS.
- The goal is to improve awareness of the testing and where to obtain more information.

A few new tactics for the campaign included the following:

- Door hangers direct to residents and businesses within the 3 km zones around PNGS and DNGS.
- A Global TV Durham ad buy
- Enhanced partnerships with the City of Pickering and Municipality of Clarington; supported our campaign with various digital community signs.
- Weather Network app ads – although not a new tactic, we experimented with new ad sizes to increase exposure.

# Public Alerting Campaigns

- An impression is one view (or listen) of a piece of content. Impressions are a proxy measure for awareness and a standardized way to measure shared, earned, paid and owned media.
- We continue to reach out to Boards of Trade and Chambers of Commerce and ads were placed with the Weather Network and Spotify to reach more people digitally.
- There were 7,800 page views, up from 6,200 last fall on the Region's nuclear preparedness website.

| Public Alerting Campaign Impressions |  |
|--------------------------------------|--|
| Social Media                         | 460,000+                                 |
| Earned (PSAs)                        | 500,000+                                 |
| Paid (radio, print, media ads)       | 515,281 (excludes Curbex & social media) |
| <b>Overall Impressions Total</b>     | <b>1,475,681</b>                         |

June 5 to 9



Nuclear public alerting test

[durham.ca/NuclearPreparedness](https://durham.ca/NuclearPreparedness)


# Public Alerting - Indoor

| Public Alerting Results |                 |                    |                 |                    |
|-------------------------|-----------------|--------------------|-----------------|--------------------|
|                         | Darlington      |                    | Pickering       |                    |
| Zone                    | Number of Calls | Time               | Number of Calls | Time               |
| 0 – 3 km                | 7               | 1 min              | 1,424           | 3min:47sec         |
| 3 – 10 km               | 14,077          | 18min:18sec        | 23,764          | 28min:33sec        |
| <b>Total</b>            | <b>14,084</b>   | <b>19min:18sec</b> | <b>25,188</b>   | <b>32min:20sec</b> |

Following the test in 2020, DEM established performance metrics for all future tests of the indoor alerting system.

Note: Outside of the 3 km zone, a first pass dialing duration of 15 mins cannot be achieved due to current infrastructure limitations.

|            | Zone      | % of Success Calls                          | First Pass Dialing Duration |
|------------|-----------|---|-----------------------------|
| Darlington | 0 – 3 km  | 85% of the landlines successfully connected | < 15 mins                   |
|            | 3 – 10 km | 75% of the landlines successfully connected | N/A                         |
| Pickering  | 0 – 3 km  | 85% of the landlines successfully connected | < 15 mins                   |
|            | 3 – 10 km | 75% of the landlines successfully connected | N/A                         |





# Public Alerting - Outdoor

- The sirens update was successfully completed the week of June 5, 2023. The test of the sirens system was also conducted during this time. As each siren was updated, it was quickly tested.
- DEM has established the following performance metrics for all future tests of the outdoor alerting system: **all sirens activate 100% of the time during the test.**



# Plans and Compliance

- Annual review and revision of the Durham Nuclear Emergency Response Plan (DNERP) and supporting documents.
- Provide feedback on the updated PNERP to the Province during the stakeholder consultation and implement the identified designated municipality requirements.
- Continue participating in the Ministry of Transportation-led evacuation planning, including the ETE studies with KLD and developing site-specific plans for Pickering and Darlington.
- Continue developing the Emergency Workers Centre supporting documents, including forms and checklists, in collaboration with internal and external stakeholders.

# Training

- Continue to deliver the Intro to Nuclear course to Regional staff and other organizations that may have to respond to a nuclear or radiological emergency.
- Complete the Radiation Basics and Emergency Workers Centre training courses.
- Further develop and revise training materials such as the Nuclear Emergency Operations Response Tables and nuclear-specific Incident Action Plan templates, forms, and checklists for the Regional Emergency Operations Centre and EWC.

# Exercise and Drills

- Start planning for Cobalt Magnet and the Darlington exercise in 2025.
- Assist other Regional Departments, local area municipalities, and school boards with their nuclear exercise planning, development, and evaluation.
- Ensure all recommendations and action items in the After Action Reports and Improvement Plans from exercises are completed.

# Committees, Working Groups and Meetings

- The DEM team will continue participating in nuclear-specific meetings, committees, working groups and commission hearings.



# Public Education and Awareness

- Continue collaborating with the City of Toronto and OPG on the Nuclear Public Education Plan with an integrated communications framework to amplify messaging, identify synergies, coordinate strategic decisions, and share resources.
- To further improve and enhance public education and awareness through a nuclear awareness social research project within Durham to understand our communities and their knowledge of nuclear emergency preparedness (Year 4 of the 4-year City Studio survey in collaboration with Ontario Tech University).
- Investigate further communication strategies with stakeholders and differentiate the messaging used in the 0 – 3 km and 3 – 10 km zones as part of the indoor public alerting campaign.
- Continue to promote the At the Ready campaign, focusing on personal emergency preparedness among the target audience of millennial moms.

# Public Alerting - Indoor System

- Conduct the annual test of the mass notification system.
- Continue to improve the integrity of the current landline data and investigate how to obtain better data for future tests.
- Test and update nuclear notification and activation scripts for use in the mass notification system.

## Public Alerting – Outdoor system

- Conduct the annual test of the siren system.
- Ensure the service provider completes all semi-annual inspections of the siren system, including ground maintenance.
- Investigate and determine a permanent solution for the leaning siren pole (D6).
- Continue implementation of the battery replacement plan.



# Thank You

[durham.ca](https://durham.ca)  
[@RegionofDurham](https://twitter.com/RegionofDurham)







# OPG Enterprise Emergency Management (EEM) 2024 Program Overview

| **Scott Preston**, Director, Emergency Management & Fire Protection

**ONTARIO**POWER  
GENERATION



# Agenda

- 1 | EEM - Our Mandate
- 2 | 2023 Highlights
- 3 | 2024 Priorities





# Enterprise Emergency Management – Our 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.

## How is this implemented?

- CNSC **Reg Doc 2.10.1** & **Provincial Nuclear Emergency Response Plan** (PNERP)
- To respond effectively to an emergency, OPG practices the response capability through **10+ simulated emergencies** every year, and maintains plans, equipment, and facilities to ensure that this capability is sustained
- Nuclear Emergency Preparedness capability via Facilities, Equipment, Procedures, Emergency Response Organization with approximately **1200 trained and proficient ERO members**, 54 unique qualifications
- Emergency Management—Business Continuity, Crisis Management, Grid
- Alignment and inter-operability of emergency plans with **off-site authorities and stakeholders**

# Enterprise Emergency Management Pillars

## 1. Program Excellence

*Strengthen OPG's social license through a robust EP program which is integrated with station goals, to ensure the protection of employees, the public and the environment*

## 2. Perfect Practice

*Maximize the Emergency Response Organization's effectiveness through drills and exercises that are realistic, challenging and evaluated against a high standard*

## 3. Constant Improvement through Innovation

*Develop a culture of continually challenging the status quo to improve the EP program through a cycle of:  
Ideation → Innovation → Integration → Iteration*

# 2023 Highlights

- **Exercise Unified Command 2023** executed successfully at Pickering, including participation from OPG, CNSC, Province EMO, Durham, Toronto, Pickering Fire, and Centennial College.
- **Proficiency of ERO (Emergency Response Organization):** Piloted an ERO Proficiency Dashboard to track performance across all key response roles.
- Updated **Evacuation Time Estimates** for Pickering and Darlington stations completed and made available for public reading at [opg.com](https://www.opg.com)
- **Drills & Exercises:** Successfully completed 12 evaluated drills and 20 Self-Assessed crew practices.
- **Potassium Iodide (KI) Pills:** Approximately 242,000 KI pills were distributed through 11,000+ orders via [preparetobesafe.ca](https://www.preparetobesafe.ca) and the New Neighbours program in 2023.
- **External audit:** 'Continuum Site Visit' at Pickering and 'Mid-Cycle Review' by World Association of Nuclear Operators (WANO) in October, and 1 CNSC audit at Pickering and 2 inspections at Darlington.
- Attended Community Open House with **Metis Nation of Ontario** to share emergency response practices for transportation emergencies and waste management.

# Exercise Unified Command 2023

- **A 3-day, large-scale exercise simulating a nuclear emergency** at Pickering Nuclear Generating Station occurred in September 2023.
- The goal was to **test the interoperability and elements of each organization's respective emergency response plans** for a simulated incident. Lessons learned would be incorporated into the existing response plans for improvements.
- Participants included from a variety of organizations including:
  - CNSC
  - Province of Ontario
  - Regional Municipality of Durham
  - City of Toronto
  - Pickering Fire Services
  - Toronto Fire Services
  - Centennial College
- Several lessons from this exercise apply to both Pickering and Darlington sites and associated Off-Site Centres.





# 2024 Priorities

- **Drills & Exercises:** Full drill & exercise schedule through 2024, with added realism incorporated into scenarios.
- **Partnerships:** Maintain strong partnerships with external partners at all levels (Federal, Provincial, Regional, Municipal, Nuclear industry) through regular discussion, alignment and MOUs.
- **Indigenous Engagement:** Forming a team to identify additional engagement opportunities through the program
- **Performance:** Monitor changes in emergency response equipment and systems through data automation
- **Innovation:** Enhance audio-visual technology in emergency response centres, and integration of electronic fax system into event documentation and communication software, WebEOC, investigate drone technology for off-site radiation monitoring
- **External evaluations and benchmarking:** Several external evaluations planned. Benchmarking in US planned with specific areas of focus (e.g., site emergency communications protocols and equipment)
- **New Nuclear (Small Modular Reactor Darlington):** Continued support for initiative with staff and expertise.
- **Pickering Safe Storage:** Effort underway to define and plan the transition activities to maintain appropriate Emergency Response
- **Potassium Iodide (KI):** OPG will remain an active member of the ongoing CNSC-led KI Working Group in 2024, as well as consulting with municipal and provincial partners on various KI matters. OPG to enhance the KI Program by upgrading the PTBS website and expanding approved suppliers.

# 2024 Committees, Working Groups & Meetings

| REGIONAL   | PROVINCIAL                            |
|--|---------------------------------------|
| Public Education   | NEMCC—Main Committee                  |
| Nuclear Sector Working Group   | NEMCC—Public Education Sub-Committee  |
| Nuclear Exercise Meetings<br>(Regional Departments & Local Area<br>Municipalities) | NEMCC—KI Working Group                |
| Durham & Toronto Office of Emergency<br>Management Working Group                   | NEMCC—Transportation                  |
| Durham Nuclear Health Committee  | EPREV—Provincial Working Group        |
| Community Advisory Council   |                                       |
| FEDERAL  | EXERCISE UNIFIED COMMAND              |
| EPREV—Steering Group   | Steering Committee                    |
| CSA N1600 Technical Committee  | Joint Exercise Planning Team          |
| CNSC hearings  | Scenario Development Working Group    |
| CNSC KI Pill Working Group   | Exercise Communications Working Group |
|  | Exercise Evaluation Working Group     |

For more information, visit: [www.opg.com/nuclearsafety](http://www.opg.com/nuclearsafety)

