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**Presentation from Emergency Management Ontario**

**Présentation de Gestion des situations d'urgence Ontario**

**January 12, 2020 false alert by Emergency Management Ontario concerning the Pickering Nuclear Generating Station**

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**Fausse alerte émise le 12 janvier 2020 par Gestion des situations d'urgence Ontario en rapport avec la centrale nucléaire de Pickering**

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Commission Meeting

Réunion de la Commission

**June 17, 2020**

**Le 17 juin 2020**

Ministry of the Solicitor General

# Public Safety Alerting in Ontario

Presented to:  
Canadian Nuclear Safety Commission  
(CNSC) Meeting

Presented by:  
Emergency Management Ontario (EMO)

Date: June 17, 2020

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# **Alert Ready Overview & Governance**



# Alert Ready Overview

- Alert Ready is Canada's emergency alerting process.
- Alert Ready is a public-private partnership between federal, provincial, territorial (FPT) governments, Last Mile Distributors (broadcasting and telecommunications industries), and Pelmorex Weather Networks (Television) Inc.
- The FPT component is the National Public Alerting System (NPAS) which includes:
  - A designated official identifying a threat to the public and deciding a warning is necessary and the content of that warning
  - The collection or aggregation of those messages and a process to make them available for distribution
  - The distribution and display of alert messages to the public by Last Mile Distributors
  - The public receiving the alert message and taking appropriate action as necessary.
- The Pelmorex component is the National Alert Aggregation and Dissemination (NAAD) System, which allows for the reception of alert messages from designated public authorities and the dissemination of those alert messages to Last Mile Distributors anywhere in Canada.
- The public receives alert messages through radio, television, and compatible wireless devices.

# Alert Ready Governance

- Alert Ready is governed by the NAAD System Governance Council, which is comprised of:
  - Organizations authorized to issue emergency alerts (each provincial and territorial government, and Environment and Climate Change Canada)
  - Federal public safety organizations (including Public Safety Canada)
  - The operator of the NAAD System (Pelmorex)
  - Last Mile Distributors (LMDs) (English broadcaster; French broadcaster; anglophone distributor; francophone distributor; public broadcaster; wireless service providers; trade associations representing LMDs)
  - The CEO of Pelmorex, or designate, will serve as the Chair of the Council.
- Pelmorex Weather Networks (Television) Inc. is licensed under the *Broadcasting Act* and is authorized to broadcast emergency alerts across Canada. Pelmorex maintains and operates the Alert Ready system.

# Governance Council Roles & Responsibilities

- The council provides direction and advice to Pelmorex on matters related to the current and future operation of the NAAD System, such as:
  - Compliance with the Common Alerting Protocol – Canadian Profile (CAP-CP) specifications and amendments adopted by the Council for use in the NAAD System
  - User interface improvements
  - System security, monitoring, redundancy and back-up
  - Technical support
  - Reporting requirements
  - The order in which non-critical system upgrades/improvements will be undertaken
  - User management and access control
  - Alert message requirements and improvements
  - LMD connections and requirements
  - NAAD System or Council-related submissions to the CRTC
  - Terms of reference and other Council or user guidance documents
  - Enhancing the end user (consumer) experience

# Alert Ready in Ontario





# How Alert Ready Works

- The Provincial Emergency Operations Centre (PEOC), which is part of Emergency Management Ontario (EMO) in the Ministry of the Solicitor General is authorized to issue alert messages on behalf of the Ontario government pursuant to a user access agreement with Pelmorex.
  - The PEOC monitors actual or emergent situations that have the potential to impact Ontario and coordinates a Government of Ontario response.
  - EMO represents Ontario on the NAAD System Governance Council.
  - The Ontario Provincial Police (OPP) issues Amber Alerts on behalf of police services.
- Emergency alerts are requested by authorized public officials and are issued by the PEOC using text, a loud tone, and/or vibrations.
- These alerts contain information relating to the nature of the threat, the area affected, and actions the public should take.

# Constraints and Limitations of Alert Ready

- **Character limits:**
  - The BI alert message for wireless text can only have 600 characters, inclusive of French and English text
  - The BI alert message for TV and radio can only have 900 characters for the English text and 900 characters for the French text
  - You can issue one alert, in both languages if the character limits are met
  - If character limits are not met, there will be two alert messages, one English, one French
- Specific geo-targeting granularity. An alert location may not be granular enough to target specific locations (**example:** All buildings within five blocks surrounding a specific cross street). Due to the locations of telecommunications towers and the broadcast footprint of radio and TV stations, alerts will usually be received outside the areas targeted.

# Process for Issuing Alerts in Ontario

- To access the Alert Ready system, authorized officials contact the PEOC Duty Officer (DO) with information pertaining to the incident within their jurisdiction and request that a Broadcast Intrusive (BI) alert be issued. The information should specify:
  - the type of alert (e.g., flood, chemical spill) including the content of the message
  - the why and when the alert should be sent;
  - the geographical areas covered by the alert; and when the alert is updated and/or cancelled; and,
  - a detailed description of what actions members of the public should take in order to protect themselves from the threat or incident
- BI alerts can be sent to municipalities, unincorporated areas, First Nations communities and/or the entire province of Ontario.
- PEOC DOs enter the alerts into the NAAD system.

# Who Can Request an Alert?

- Authorized officials who can request to issue BI alerts through the PEOC include:
  - The Chief EMO, Director of Emergency Management, Deputy Chief, or Duty Operations Chief
  - Community Emergency Management Coordinator (CEMC) and Alternate
  - Mayor/Head of Council
  - First Nation Chief
  - Police Chief and Fire Chief
  - Senior Municipal Government Official (e.g., Chief Administrative Officer) and
  - Ministry Emergency Management Coordinator (MEMC) and Alternate
- By regulation, each municipality designates one CEMC. Many have also designated an alternate.
- By regulation, each ministry designates one MEMC and an alternate.
- There is a specific process for nuclear alerts under the Provincial Nuclear Emergency Response Plan (PNERP). Nuclear stations inform the PEOC and protocols are followed to determine if an alert is needed.

# Types of Alerts

Alert Type	Compatible Wireless Devices	TV	Radio
Broadcast Intrusive	Yes	Yes	Yes
Non Broadcast Intrusive	No	Yes, at distributors' discretion	Yes, at distributors' discretion

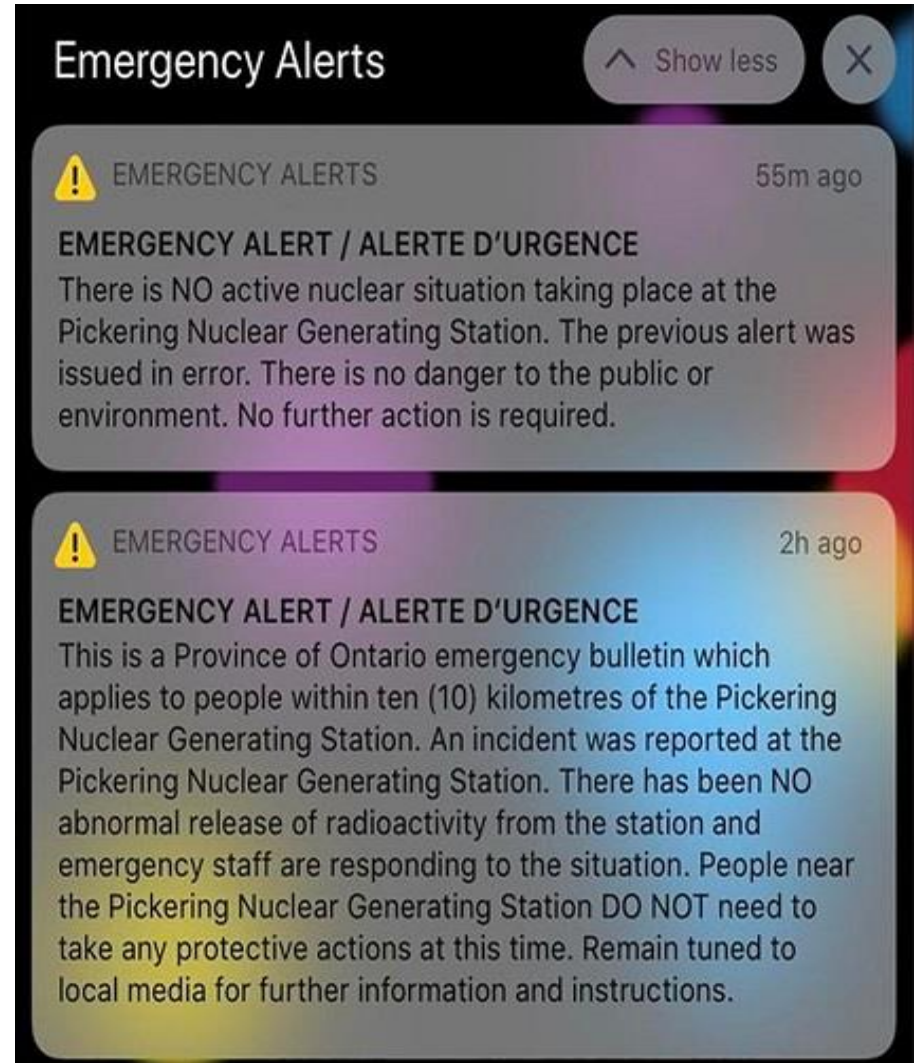
- Emergency management alerts can be issued 24/7/365 via the PEOC.
- Alerts may be issued as Broadcast Intrusive (BI) alerts which interrupt all TV and radio programs being broadcast at the time, and send a notification to all compatible wireless devices in the alert area.
- Note: The OPP enter Amber Alerts, as requested by OPP or a municipal or First Nation police service, directly into the NAAD system. Environmental and Climate Change Canada also has direct access to the system for emergency weather alerts.

# **Review of Error Alert & Investigation**



# Error Alert Overview

- On January 12, 2020, the PEOC issued an emergency alert via the Alert Ready system to Ontarians reporting an incident at the Pickering Nuclear Generating Station (PNGS).
- A second alert was issued 108 minutes later advising that the previous alert had been sent in error.



# Alert Ready System Profile (at time of error)

- The Alert Ready system platform is comprised of two sites:
  - An Alert Ready Training Site to allow the PEOC DOs to refresh themselves on how to issue an alert
  - An Alert Ready Live Site for the issuing of real alerts
- The system is pre-loaded with templates for alert messages.
- The templates for initial nuclear emergency bulletins are pre-scripted, based on nuclear accident scenarios identified for planning basis purposes in the PNERP.
- These nuclear bulletins have been developed to issue time-critical alerts in the event of a nuclear facility emergency.
- Templates also allow new messages to be developed based on other hazard-specific emergencies.
- All templates are available on both the training and live sites.
- Templates are available in both English and French.



# Alert Ready Procedures (at time of error)

- At each shift change, the PEOC DO tests both the Alert Ready live and training sites.
- First, the DO logs in to the live site to ensure system access, and then logs out.
- Second, the DO refreshes themselves on how to issue an emergency alert. To do this:
  - The DO logs into the training site
    - Loads a prepopulated message (as per previous slide) or writes a message
    - Sends an alert on the training system
    - Then logs out.
- Alerts issued on the training site cannot leave the system, and automatically delete upon issuing.

# Alert Timeline

07:00	Duty Officers start shift and begin the shift handover protocol. This included logging in and out of the Alert Ready live system and logging in and sending an alert on the training system.
07:23	The Duty Officer logged into the live system, believed they had switched to the training system, selected a pre-scripted nuclear message and sent a broadcast-intrusive public alert.
07:23	The public received a nuclear emergency alert.
07:25	The Duty Officers contacted off-duty Supervisor 2 and explained that the alert was intended for the training system but was sent in error from the live system.
07:40	The PEOC Supervisors consulted with internal and external officials concerning the appropriate communication approach with respect to advising the public that the alert was issued in error.
09:11	The Duty Officer issued an alert advising the public that there was no incident and no action was required.
09:11	The Alert was received by the public.

# Investigation Overview

- On January 12, 2020, the Solicitor General announced a full investigation into the alerts.
- On January 15, 2020, the Deputy Solicitor General – Community Safety (DSG-CS) directed the Provincial Security Advisor (PSA) to immediately investigate the circumstances surrounding the issuance of the January 12, 2020 alerts.
- The scope of the investigation included the following areas:
  - Determining the sequence of events that occurred in relation to the error alert on January 12, 2020
  - Protocols and procedures for issuing alerts via the Alert Ready System
  - Review of pre-scripted messages in the Alert Ready system
  - EMO training on the use of the Alert Ready system
  - Technological capabilities and gaps of the Alert Ready system
  - Review of EMO lines of communication with government and stakeholders
  - Protocols and procedures for cancelling an error alert
- The OPSA worked with partners in the Ministry of the Solicitor General, including ministry investigators and other emergency management professionals to conduct the investigation.
- The investigation was informed by conducting interviews, and observing a demonstration of the Alert Ready system.
- The report and accompanying action plan were released publicly in February 2020 and are available at the link below:  
<https://www.mcscs.jus.gov.on.ca/english/Publications/InvestigationemergencyalertssentJanuary122020.html>

# Key Investigation Findings

- The investigation found the following:
  - The alert was a result of human error and was intended to be a test alert on the Alert Ready Training Site.
  - The error occurred because:
    - On January 12, 2020, a DO logged in to the Alert Ready live site, and believing they were in the training site, accidentally sent a live alert.
    - The intended test alert used a prepopulated nuclear bulletin reporting an incident at the Pickering Nuclear Generating Station (PNGS).
  - The DO was not acting on any information concerning a nuclear incident.
  - The DO immediately recognized the error and proceeded to seek guidance on corrective action from PEOC supervisors.
  - A new message was developed to communicate that the initial message was sent in error and that there was no nuclear incident.

# Key Investigation Findings (continued)

- Unrelated information about the Pickering Nuclear Generating Station circulated and added confusion to senior OPS executives' understanding of the situation.
  - On January 12, 2020, Unit 1 at Pickering Nuclear Generating Station was on a planned maintenance outage and was therefore out of service in a shutdown position. At 1:21 am, there was a momentary loss of power to some equipment on this Unit resulting in an internal notification.
  - Subsequent discussions with stakeholders confirmed that the minor issue at Pickering was unrelated to the alert sent in error from the PEOC.

# Key Investigation Findings (continued)

- The investigation concluded that while the immediate cause was human error, there were several other issues that contributed to both the error alert and the delay in issuing a cancellation and identified a number of areas for improvement including:
  - Staff and manager training
  - The procedures by which the public is informed of an error alert including having pre-scripted clarifying messaging
  - System enhancements to minimize the potential for error
  - Clarification of roles and responsibilities
  - French language message templates and translation

# Corrective Actions



# Provincial Alert Ready Action Plan

- In response to the investigation, the Provincial Emergency Operations Centre Action Plan was released to address corrective actions related to:
  - System verification and testing
  - Staff training
  - ‘End Alert’ procedure
  - French messaging and translation
  - PEOC staffing
  - Alert Ready roles and responsibilities



# PEOC Action Plan Status Update

Area of Concern	Actions	Status
System Verification & Testing	Alert Ready system verification sequence modified to minimize the potential for human error.	Completed
	All test messages now clearly indicate they are test messages.	Completed
	Supervisors tasked to verify that duty officers are following shift change procedures.	Completed
	The Alert Ready system verification process now requires two personnel to conduct the test.	Completed
	Distinct login credentials are in place for the live and test platforms of the Alert Ready system to mitigate an operator from logging into the live system by mistake.	Completed
Staff Training	All duty officers will complete refresher training on all Alert Ready procedures.	Completed
	All PEOC supervisors to undergo training on the Alert Ready system and be granted appropriate access to the system.	Completed /Ongoing
	Emergency exercise planning will include elements of critical thinking and atypical situations to test the PEOC decision making process for effective emergency alerts and response.	Underway
“End Alert” Procedure	Implement a new procedure to ensure an “end alert” message is sent immediately should an emergency alert be issued in error.	Completed

# PEOC Action Plan Status Update (continued)

Area of Concern	Actions	Status
French Resources	All alert message templates, including “end alert” messages, are available in French.	Completed
	All staff at the Provincial Emergency Operations Centre (PEOC) to be provided refresher training on emergency translation procedures.	Completed / Ongoing
Staffing	The ministry will conduct a review of staffing at the Provincial Emergency Operations Centre	Underway
NAAD Governance Council	The ministry will request clarification from the council on the roles and responsibilities to eliminate any confusion surrounding who is responsible for issuing or ending emergency alerts, including those issued in error.	Completed
	The ministry will request that the council address the Alert Ready system issues identified in the report.	Completed
	The ministry will recommend to the council that the Alert Ready system be modified to require two-person verification for all live emergency alerts.	Completed

# Conclusion

- Since the false alert, the PEOC has issued two alerts related to COVID-19.
- In relation to the NAAD Governance Council, EMO has brought PEOC Action Plan items forward in discussions interjurisdictionally and with Pelmorex.
- EMO will continue efforts to ensure all commitments under the Action Plan are addressed and that a false alert scenario is not repeated.