



September 3, 2013

Hon. Madeleine Meilleur Ministry of Community Safety and Correctional Services 18th Floor 25 Grosvenor Street Toronto ON M7A 1Y6

Via: madeleine.meilleur@ontario.ca

Re: Scope and process of a public review of Ontario's nuclear emergency plans

Dear Minister Meilleur:

We'd like to thank you for taking the time to listen to our concerns about Ontario's nuclear emergency plans and your stated personal commitment to public consultation and transparency.

At the meeting, Dan Hefkey, the Commissioner for Community Safety, committed to provide us with a proposal for publicly reviewing Ontario's nuclear emergency plans within the next thirty days.

We commend this initiative. As discussed during the meeting, the Ontario government carried out public reviews to determine the scope and nature of offsite nuclear plans following the Three Mile Island and Chernobyl accidents. It is appropriate and reasonable for your Ministry to do the same following Fukushima.

In our view, the following elements should be part of the scope and process of any such review:

• A new planning basis founded on real-world experience. Essential to modernizing Ontario's offsite nuclear emergency plans is updating the planning basis to acknowledge the empirical record. As discussed, Ontario's current detailed emergency plans are only designed to address minor reactor accidents involving small radiation releases. This planning basis was established in the 1980s based on the belief that major nuclear accidents would be so improbable they didn't require detailed offsite emergency plans. Real-world experience, however, shows that major reactors accidents are regular events, happening about once a decade somewhere in the world. Fukushima also highlighted the need to plan for simultaneous large radiation releases from multiple reactors at the same site. Any credible review of Ontario's nuclear emergency plans must assess the effectiveness of measures, such as evacuation, against large accidental radiation releases.ⁱ

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- Evacuation and Early Release: Ontario's current evacuation plans are based on the assumption that the containment at each of the province's nuclear stations will be able to hold in radioactive releases for at least twenty-four hours. At Fukushima, however, radioactive releases began within the first twenty-four hours. Similarly, Ontario Power Generation's (OPG) most recent risk assessments for the Pickering B and Darlington nuclear stations identify scenarios where large radioactive releases begin within the first twenty-four hours.ⁱⁱ The review should aim to strengthen Ontario's detailed nuclear emergency plans to protect the public in the event of early accidental radiation releases.
- **Community Engagement**. As representatives from Durham Nuclear Awareness highlighted during our meeting, there is a significant lack of awareness in Durham Region of what to do in the event of a nuclear emergency. We suspect there is a similar lack of awareness in the Bruce region and in the City of Toronto. In our view, local authorities, including Durham Emergency Management Office (DEMO), have failed on an ongoing basis to properly inform the public about existing plans. We feel that an effective review and modernization of Ontario's nuclear emergency plans would seek input from not only industry related agencies, such as OPG and DEMO, but from community members, elected municipal officials and frontline emergency plans while building the needed understanding and consent to implement such plans in the unfortunate event of an accident. *A credible public review must consult openly with non-industry stakeholders.*
- Transparency and Meaningful Consultation. As mentioned during our meeting, past reviews of nuclear emergency plans struck working groups or committees made up of experts and stakeholders with a mandate to delve into specific subject areas, produce discussion papers for public comment, and finally provide recommendations for government with supporting reasons. As we noted during our meeting, it has been difficult to get historic documents providing the reasoning and assumptions underlying current plans. An independent working group model, which develops discussion papers on key topics, such as iodine distribution and evacuation zones, dispositions public comments and provides recommendations to the Ministry, would provide a needed level transparency and more accountability.
- Drinking Water and Land Reclamation: As noted, Ontario's current nuclear emergency plans are only designed to deal with small radioactive releases. In changing the province's planning basis to deal with large radioactive releases, a public review should be prepared to address issues not explicitly dealt with in the province's current plans. We would like to highlight two such issues: the risk of drinking water contamination across the Great Lakes and a transparent approach for dealing with land and property reclamation following an accident. In the event of a large radioactive release, a process will be needed to determine what land is permanently abandoned and what land will be reclaimed. The Japanese are currently struggling with how to make such decisions. Similarly, for the past two years there have been significant radioactive emissions from the Fukushima reactors into the Pacific Ocean, contaminating aquatic ecosystems and food supplies. Large releases into Great Lakes would likely have a significant impact on the drinking

water supplies. *Modernizing Ontario's nuclear emergency plans will require addressing issues not dealt with under current plans.*

To conclude, these are a selection of elements we believe need to be part of either the scope or process to modernize Ontario's offsite nuclear emergency plans.

We'd like to thank you for your commitment to transparency and public consultation. We would be happy to provide you or your staff with more advice or support in developing this process as needed.

Again, it was a pleasure meeting with you. We look forward to the Commissioner for Community Safety's proposed nuclear emergency plan review process and discussing this further.

Truly,

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c.c. Dan Hefkey, Ontario Commissioner for Community Safety

ⁱ The Canadian Nuclear Safety Commission (CNSC) defines a large radiation release as an accident that could lead to the long-term abandonment of land. Ontario Power Generation's (OPG) most recent risk assessment for the Darlington nuclear station identifies two known large release accident scenarios. See Table 16 of the Darlington NGS Risk Assessment Summary Report. Available at: http://bit.ly/KcnqOC OPG's most recent risk assessment for the Pickering B nuclear station identifies three known large release scenarios. See Table 9 in the Pickering B NGS Risk Assessment Summary Report. Available at: http://bit.ly/15BgspP

ⁱⁱ See the accident scenarios referred to as Release Category 2 in both the Darlington and Pickering B Probabilistic Risk Assessments.