



To: Cheryl Bandel, Deputy Clerk Cheryl.Bandel@Durham.ca
Joint Finance and Administration/Health and Social Services Committee
Durham Region

From: Dr. Cathy Vakil, CAPE Board Member, and Kim Perrotta, CAPE Executive Director

Date: October 20, 2015

Re: **Report 2015-J-53 - Impact of an expanded nuclear emergency planning Primary Zone on the Region's nuclear emergency response capability.**

It has come our attention that on Oct. 22, 2015, a Joint Committee of Durham Regional Council will be reviewing "Report 2015-J-53 - Impact of an expanded nuclear emergency planning Primary Zone on the Region's nuclear emergency response capability", which was prepared in response to a resolution that recommended:

- (i) that Durham Region requests the Government of Ontario to be open and transparent regarding all data and studies used in justifying changes to Ontario's off-site nuclear emergency plans; and
- (ii) that Durham Region requests the Province of Ontario to consider the feasibility of expanding the 10 km primary zone.

The Canadian Association of Physicians for the Environment (CAPE) wishes to re-affirm its support for the resolution, and encourages the Joint Committee to request that the Ontario Government support transparent modelling of a level 7 nuclear accident at the Darlington Nuclear Station and consider expanding the 10 km primary zone.

The Ontario Government has published no data or modelling on off-site protective measures that would be needed in the event of a major accident at the Darlington or Pickering nuclear stations. The Ontario Government also promised to publicly review its off-site nuclear emergency plans following the Fukushima disaster, but has not done so.

The Canadian Nuclear Safety Commission's (CNSC) recently released a report, "Study of Consequences of a Hypothetical Severe Nuclear Accident and Effectiveness of Mitigation Measures", which does not address an accident similar to Fukushima, so there is no data on the effect of a major nuclear accident in Ontario.

Fukushima is categorized as a level 7 accident on the International Nuclear Event Scale (INES). A new epidemiological study produced on the Fukushima nuclear accident found a 30-fold increase in the number of thyroid cancer cases among children and adolescents living in the districts where radiation exposure was deemed the greatest. The highest increases in risk were observed among those who lived

50 to 60 km from the plant who were not evacuated. (T Tsuda, A Tokinobu, E Yamamoto, E Suzuki, “Thyroid Cancer Detection by Ultrasound Among Residents Ages 18 Years and Younger in Fukushima, Japan: 2011 to 2014”, To be published in Epidemiology in 2015).

In CAPE’s view, the CNSC’s new regulation requiring the pre-distribution of potassium iodide (KI) within the province’s 10 km primary zone should be viewed as a *minimum* standard only. As noted in the original resolution, CNSC Commissioner Dr. Alexander (Sandy) McEwan has also referred to the 10 km primary zone as “arbitrary” and in his view a “minimum” for the pre-distribution of KI. In CAPE’s view, this is why transparent modelling is needed to show how far afield KI pills may be needed in the event of a major accident.

As noted in the resolution, Switzerland has pre-distributed KI to all persons living within 50 km of its nuclear plants. It made this decision based on transparent accident modelling. Belgium’s Conseil de la Sante also recommends selective pre-distribution of KI to pregnant women residing within 100 km of the country’s nuclear stations.

The 10 km primary zone was established by the government of Ontario *before* the Chernobyl disaster in 1986. Since the Fukushima disaster began four years ago, the province of Ontario has published no studies, nor provided any data to evaluate the adequacy of the 10 km primary zone. This is why CAPE urges the committee to support the motion.

In absence of any such studies, CAPE’s view is that KI tablets should be pre-distributed within a 50 km area to the general population and within a radius of 100 km for *vulnerable* populations (e.g., pregnant women and schools). This would be in keeping with other countries who have in fact examined the effects of a major accident, unlike Canada.

CAPE has reviewed Durham Emergency Management Office’s (DEMO) report. We are disappointed that DEMO, an organization mandated to protect public safety, would not support consideration of expansion of the provincial primary zone. DEMO is effectively arguing that the Region’s (current) lack of resources should be used as an excuse to avoid publicly assessing what is needed to protect the citizens of Durham Region in the event of a Fukushima-scale accident. This is not a persuasive argument for rejecting the proposed motion. Indeed, DEMO’s focus on its current resources instead of public safety indicates the organization may benefit from the public assessment of emergency plans.

In CAPE’s view, the question that needs to be asked first is “what is needed to protect public safety and health in the event of a nuclear accident?” The answer may call for the expansion of the primary zone or other protective measures such as KI distribution and alerting. If so, the additional resources would be provided to DEMO by OPG and the province. Nevertheless, before allocating resources we must start by asking what is needed to ensure public safety.

As noted in the motion, Switzerland carried out a public review of nuclear emergency plans, published accident modelling, and subsequently expanded the distribution KI pills. CAPE feels the residents of Durham Region and all Ontarians have a right to similar levels of transparency and government accountability when it comes to matters of public safety and health.

CAPE believes credible public policy should be based on transparent evidence and science. We thus urge you to support the motion calling on the Government of Ontario to be open and transparent regarding all data and studies used in justifying changes to Ontario’s off-site nuclear emergency plans.