



**Written submission from
John D. Jacobs**

**Mémoire de
John D. Jacobs**

In the Matter of the

À l'égard d'

Ontario Power Generation Inc.

Ontario Power Generation Inc.

Applicability of the Darlington New Nuclear Project environmental assessment and plant parameter envelope to selected reactor technology

Applicabilité de l'évaluation environnementale et de l'enveloppe des paramètres de la centrale à la technologie de réacteur sélectionnée pour le projet de nouvelle centrale nucléaire de Darlington

Commission Public Hearing

Audience publique de la Commission

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From: John Jacobs
Sent: November 20, 2023 3:38 PM
To: Interventions / Interventions (CNSC/CCSN)
Subject: Submission re Proposed Development of BWRX-300 reactors at the Darlington Nuclear Site

20 November 2023

To the Canadian Nuclear Safety Commission

The Ontario Power Generation (OPG) is proposing to employ a novel, untested design of four reactors to be used in the Darlington New Nuclear Project (DNNP). This follows the recommendation of a Joint Review Panel and approval by the Government of Canada to OPG's original proposal, which was based on a generic design and, presumably, OPG's long experience with CANDU reactors.

The reactor now being proposed is the GE Hitachi BWRX-300 boiling water reactor, a "small modular reactor" (SMR) design. From the information available, no BWRX-300 has yet been put into operation anywhere, so OPG would be using Darlington and the people of the surrounding area as a testing ground for this innovation.

My concern about this project is based on my perspective as a resident of Atlantic Canada, with many years experience as a university scientist. My undergraduate studies in the 1960s included courses in physics. I believe that in the past there was greater public concern than now about the hazards associated with radioactive materials.

The physics of radiation has not changed, nor have the hazards. What has changed is the public perception of the risks – as something remote (think Fukushima and Chernobyl). This has allowed entry into the public mind of false and misleading imagery – attractive on the surface – of "small modular" reactors that one might carry in a suitcase and use, for example, to meet the challenges of providing "clean" energy to our northern communities in winter when solar power cannot.

OPG should not be given permission to go ahead with their New Nuclear project without further, arms-length expert scrutiny of their proposed design in a new and full environmental assessment. It should set a sound precedent for other similar projects, such as is being contemplated for Point Lepreau, where the provincial government has said an environmental impact assessment would be required.

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