



**Written submission from
CANDU Owners Group**

**Mémoire du
CANDU Owners Group**

In the Matter of

À l'égard d'

Ontario Power Generation

Ontario Power Generation

Ontario Power Generation – Licence amendment application for the Darlington Nuclear Generating Station regarding the commercial production of Cobalt-60

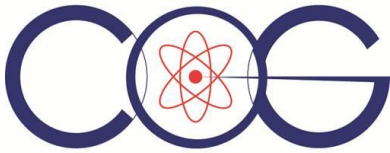
Ontario Power Generation – Demande concernant la modification de son permis pour la centrale nucléaire de Darlington en vue de produire commercialement du Cobalt-60

Public Hearing – Hearing in writing based on written submissions

Audience publique – Audience fondée sur des mémoires

Spring 2024

Printemps 2024



April 5, 2024

Canadian Nuclear Safety Commission Secretariat
c/o Louise Levert
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046
Ottawa, ON K1P 5S9

Email: interventions@cnsccsn.gc.ca

Subject: Ontario Power Generation's Licence Amendment Application for the Darlington Nuclear Generating Station Regarding the Commercial Production of Cobalt-60.

Dear Ms. Levert,

This submission is in support of Ontario Power Generation's licence amendment application for the Darlington Nuclear Generating Station regarding the commercial production of Cobalt-60.

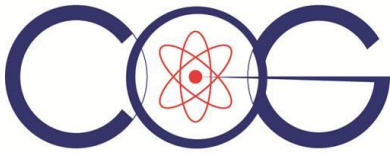
The CANDU Owners Group (COG) is a not-for-profit organization with membership from all owners of CANDU reactors both in Canada and internationally, focused on achieving *excellence through collaboration*. COG is dedicated to information sharing and collaboration on nuclear sector research and development on CANDU and advanced nuclear technologies. Together with its members, suppliers, research, and partner organizations, COG is continuously innovating nuclear plant equipment and processes to ensure the highest standards of safety, efficiency, and environmental performance.

To fulfill these objectives, COG is organized around the following four operational program areas:

- Nuclear Safety and Environmental Affairs
- Research and Development
- Information Exchange
- Joint Projects

COG members spend approximately \$70 million a year in R&D and Joint Projects to strengthen the safety, reliability, environmental, and cost performance of the CANDU nuclear plants. Investment into R&D is made by our members in proportion to the number of operating units, which makes OPG the largest current contributor to COG's R&D program. This, in turn, benefits the entire CANDU community, both domestic and international. In addition, COG has developed a leadership and knowledge management training program to strengthen leadership and management skills amongst high-potential technical managers in the nuclear industry.

The work facilitated by COG on behalf of its members relies on capable, knowledgeable, suppliers with deep expertise, human capacity, and facilities to undertake ground-breaking nuclear science. This research, and the associated engineering activity, is undertaken mostly in



Canada by organizations such as Canadian Nuclear Laboratories, Kinectrics, AtkinsRéalis, Stern Laboratories, and nuclear utilities such as OPG.

Canada started its long history of Cobalt-60 production using research reactors at the Chalk River National Laboratory in the late 1940s. The technology for producing Cobalt-60 was subsequently adapted to OPG's Pickering A Nuclear Generating Station in the early 1970s and later to Pickering B Nuclear Generating Station, which highlights the versatility of CANDU reactors to produce high-value radioisotopes while simultaneously producing safe, clean, affordable, reliable electricity for the people of Ontario.

Cobalt-60 is a radioisotope widely used for the sterilization of medical equipment, radiation sources for medical radiotherapy, industrial radiography, pest insect sterilization, and food irradiation. The Canadian production of Cobalt-60 will be temporarily reduced during the future refurbishment of the Pickering B units. There is therefore a need to start its production at Darlington NGS to meet domestic and international demand for this important radioisotope that brings multiple benefits to the medical and industrial sectors, supports disease control and strengthens our food supply.

OPG has a decades-long, outstanding safety record of Cobalt-60 production at the Pickering B NGS site. COG is confident that OPG will successfully transfer the lessons learned and expertise to the Darlington NGS and will take necessary steps to ensure adequate provisions for the protection of the environment, and the health and safety of persons working on the Cobalt-60 production at the Darlington NGS.

Over the past decades, numerous highly paid technical jobs directly related to the operation of nuclear plants were created in Ontario, and more jobs were added to support the needed supply chain to build and maintain the reactors and support the ongoing research and development needed for the continuous improvement of the plants. Still, even more jobs will be created to support the production, processing, transportation and distribution of newly produced Cobalt-60. Those new jobs will bring more prosperity to the region where the Darlington NGS is located.

In short, COG and its members are continuously improving safety, reliability, affordability, and environmental outcomes in Canada's nuclear plants. Ontario Power Generation is a leader in these efforts. COG fully supports OPG's licence amendment application regarding the commercial production of Cobalt-60 at the Darlington NGS and is confident that OPG will continue with its exemplary safety record in every aspect of its operations.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rachna Clavero', written in a cursive style.

Rachna Clavero
President and CEO
CANDU Owners Group