

700 University Avenue Toronto, ON M5G 1X6

from Ontario Power Generation

Tel: 416-592-4008 or 1-877-592-4008 www.opg.com

June 20, 2018

# DARLINGTON TO BECOME NEW SOURCE OF LIFE-SAVING MEDICAL ISOTOPES

The first large-scale commercial nuclear station to produce Mo-99 for life-saving care

**Toronto, ON** – A collaboration between Ontario Power Generation's (OPG) subsidiary Canadian Nuclear Partners (CNP) and a subsidiary of BWX Technologies, Inc. (BWXT) will make Darlington Nuclear the first large-scale commercial nuclear power station worldwide to produce **molybdenum-99** (Mo-99) and will help ensure the world's long-term supply of this critical medical isotope that is used in over 30 million life-saving diagnostic and medical treatments each year.

**Molybdenum-99** (Mo-99) is the parent isotope of **technetium-99** (Tc-99m) which is used for skeletal, brain and organ imaging to detect and diagnose harmful diseases, including heart disease and cancer. Canada's National Research Universal (NRU) reactor ceased regular production of Mo-99 in 2016 leaving North America without a large-scale domestic supply of Mo-99, and requiring hospitals and health providers to import this radioisotope from Europe, Africa and Australia. Returning Mo-99 and Tc-99m production to Canada will result in a continuous domestic and North American supply of this life-saving medical tool.

Darlington's CANDU reactors allow for the insertion and removal of medical isotope targets while producing electricity, allowing for a continuous supply of Mo-99. BWXT will process the targets from Darlington to produce Tc-99m generators. Subject to required Canadian regulatory reviews and approvals, production of Mo-99 at Darlington is expected to start by the end of 2019.

#### Quick facts:

- Molybdenum-99 (Mo-99) is required for up to 30 million life-saving medical procedures each year across the world to diagnose medical conditions including cancer and heart disease.
- Darlington Nuclear is the first large-scale commercial power plant in the world to produce Mo-99.
- Producing Mo-99 in Canada will secure a domestic supply of this isotope for life-saving medical diagnostic treatments.
- Canada ceased regular production of Mo-99 in 2016 and permanently shutdown the NRU reactor in March of 2018. This has left North America to rely on imports from reactors in Europe, Africa and Australia.
- Ontario's nuclear industry is a major world supplier of isotopes including Cobalt-60 (used to sterilize medical equipment) and tritium (used for photoluminescence). OPG and Bruce Power supply 70 per cent of the world's Cobalt-60.
- OPG and BWXT are members of the Canadian Nuclear Isotope Council (CNIC), a coalition of Canadian science, health care and nuclear organizations that ensure Canada remains a world leader in the production of life-saving nuclear isotopes.
- Mo-99 production is another example of Ontario's nuclear industry working together to supply life-saving medical isotopes.



from Ontario Power Generation

700 University Avenue Toronto, ON M5G 1X6

Tel: 416-592-4008 or 1-877-592-4008 www.opg.com

## Quotes:

"This exciting collaboration will save lives here in Ontario and across North America by giving patients quicker access to vital medical treatments. Canada will once again be a leader in producing this critical medical tool that is used in over 30 million medical procedures across the globe each year."

- Glenn Jager, President of Canadian Nuclear Partners.

"As a long-term supplier of isotopes, OPG demonstrates the numerous advantages nuclear technology offers our society, from clean and affordable power to life-saving technology. Our relationship with OPG dates back to the 1960s with the supply of power generation equipment and services, and today we are proud to strengthen our legacy of collaboration to bring this product to market."

- John MacQuarrie, President of BWXT Canada Ltd.

"At UHN and the Joint Department of Medical Imaging, the needs of our patients always comes first. OPG's collaboration with BWXT offers optimism on what this technology could mean for our ability to deliver life-saving care to patients even more effectively and efficiently. Having a reliable and local supply will allow for improved accessibility and stable access to medical isotopes in Ontario and across Canada."

- Paul Cornacchione, Senior Director of Imaging Operations,
  - Joint Department of Medical Imaging, University Health Network

"This announcement is a great example of how the private and public sector can come together to drive innovation and find solutions. This is another example of Ontario's nuclear industry working together to supply life-saving medical isotopes for the world."

- Lindsey Park, MPP-elect for Durham

"Today's exciting announcement will mean Durham will be a world leader in producing this lifesaving medical device. The collaboration between BWXT and OPG will ensure Canada and North America has a stable and reliable domestic supply of medical isotopes for years to come."

- Hon. Erin O'Toole, PC, MP Durham

"Clarington is a proud host of OPG's Darlington Station that powers Ontario's economy and now thanks to this announcement will become the leading North American source of a life-saving medical tool."

- Mayor Adrian Foster, Clarington

"OPG's Darlington Station is a fixture of our community that provides jobs and economic growth for our entire region. BWXT and OPG working together means that Clarington is the new proud exporter of this rare medical tool for the world."

- Sheila Hall, Clarington Board of Trade

## About Canadian Nuclear Partners



from Ontario Power Generation

700 University Avenue Toronto, ON M5G 1X6

Tel: 416-592-4008 or 1-877-592-4008 www.opg.com

Established in 2012, Canadian Nuclear Partners (CNP) is a wholly owned subsidiary of OPG, one of the largest and most well-established companies within the electricity generation industry. CNP is a subsidiary created to provide market access to OPG's technical expertise and capabilities, acquired from more than 100 years operating hydroelectric facilities and more than 50 years of nuclear operations. Sharing the exact same core values as our parent company, CNP believes strongly in safety, integrity, excellence, and people & citizenship.

### **About Ontario Power Generation**

OPG generates safe, clean, reliable, low-cost power for Ontario. More than 99 per cent of this power is free of smog and carbon emissions. OPG's electricity is priced 40 per cent lower than other generators, which helps moderate customer bills.

### About BWXT

Headquartered in Lynchburg, Va., BWX Technologies, Inc. (NYSE:BWXT) is a leading supplier of nuclear components and fuel to the U.S. government; provides technical and management services to support the U.S. government in the operation of complex facilities and environmental remediation activities; and supplies precision manufactured components, services and fuel for the commercial nuclear power industry. With approximately 6,100 employees, BWXT has nine major operating sites in the U.S. and Canada. In addition, BWXT joint ventures provide management and operations at more than a dozen U.S. Department of Energy and two NASA facilities. Follow us on Twitter at @BWXTech and learn more at www.bwxt.com.

-30-

For further information, please contact: Ontario Power Generation 416-592-4008 or 1-877-592-4008 Follow us @opg