



Supplementary Information

Presentation from Ontario Power Generation Inc.

In the Matter of the

Ontario Power Generation Inc.

Application to Renew the Class IB Waste Facility Operating licence for Ontario Power Generation in Darlington, Ontario

Commission Public Hearing

January 26, 2023

Renseignements supplémentaires

Présentation d' Ontario Power Generation Inc.

À l'égard de

Ontario Power Generation Inc.

Demande de renouvellement du permis d'installation de déchets de catégorie IB pour Ontario Power Generation à Darlington (Ontario)

Audience publique de la Commission

26 janvier 2023

Darlington Waste Management Facility

Licence Renewal Hearing

Richard Geofroy – Senior Vice President, Darlington Nuclear Services

Kapil Aggarwal – Vice President, Nuclear Sustainability Services | January 26, 2023

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GENERATION

Where a brighter
tomorrow begins.

Territory Acknowledgement



About OPG

- Ontario's largest clean-energy producer, generating 50% of Ontario's electricity, with 60% coming from nuclear energy.
- OPG's Climate Action Plan commits OPG to being a net-zero company by 2040.
- Nuclear energy is a vital part of the clean-energy mix to ensure our hospitals, schools, businesses and homes are operational 24/7.
- Strong oversight and accountability through the CNSC and IAEA.

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IS CHANGING
THE WORLD**

Nuclear Sustainability Services

- A strong focus on waste minimization, emphasizing the three Rs – Reduce, Reuse and Recycle.
- Reducing the physical size of the nuclear waste footprint in Ontario.
- By-products such as Tritium, Helium-3 and Heavy Water are used in fusion research, medical diagnostics and in technological advancements.
- Tritium is used as a biomedical tracer, for research in fusion power as well as in emergency lighting.



Nuclear Sustainability Services

- 50 years of safe management of nuclear by-products, including 15 years of continuous and safe operations at the Darlington Waste Management Facility.
- Responsibilities Include:
 - Occupational health and safety
 - Environmental protection
 - Preservation of public security and safeguards
 - Adhering to Nuclear Sustainability Services Three Pillars



Stewardship

- Three Classifications of Waste:
 - Low-Level
 - Intermediate Level
 - High Level
- 854 Dry Storage Containers (DSCs) have been safely processed and stored at Darlington Waste Management Facility.
- Full compliance with IAEA safeguards and security measures.
- System Performance Monitoring Plans ensure integrity of structures and components.



Nuclear Safety

- Public and employee safety remains OPG's top priority.
- Safety Analysis demonstrates that public and worker dose remains within CNSC regulatory limits during normal operations, and within Safety Report acceptance criteria due to credible accidents and malfunctions.
- Preliminary Safety Analysis will be completed prior to construction of SS #3 and SS #4.
- OPG's exemplary record of public and employee safety is supported by the Darlington Waste Management Facility Safety Report summary, available on [Reporting > Regulatory reporting - OPG](#)



Industrial Safety

- The Darlington Waste Management Facility has worked without a lost time accident or medically treated injury for its entire operational period. This period has lasted 14 years.
- Strong TCSCA (Timely Completion of Safety Corrective Actions) performance has been observed for NSS-D since the introduction of the metric in 2019 with 100% completion rate.
- During the current licensing period up to Q4 2022, there were zero (0) High Maximum Reasonable Potential for Harm events that occurred at Darlington Waste Management Facility.
- Ongoing health and safety improvement initiatives including iCare, Fail Safe and Total Health.



Radiation Safety

- Radiation Protection has four key objectives:
 - Keeping individual doses below regulatory limits.
 - Preventing unplanned exposures.
 - Maintaining individual risk from lifetime radiation exposure at an acceptable level.
 - Ensuring collective doses are As Low As Reasonably Achievable (ALARA).



DWMF Operations

- OPG has requested the facilities approved, but not yet constructed during the previous licencing period be included in the new licence, with a combined capacity increase from 1000 to 1200 DSCs.
- Structures to be completed are within the scope of the approved Darlington Refurbishment and Continued Operation Environmental Assessments.
- Darlington site Environmental Risk Assessment was completed in 2020, meeting the requirements of the Canadian Standards Association.



Environmental Stewardship

- OPG maintains a corporate-wide Environmental Management System which is certified to the (ISO) 14001 *Standard* and is compliant with REGDOC 2.9.1, *Environmental Protection Policies, Programs and Procedures*.
- OPG's monitoring program at Darlington consists of radiation monitoring of individual Dry Storage Containers and perimeter dose monitoring. All Darlington Facilities are incorporated into the site wide environmental and groundwater monitoring programs.
- There has been no impact to groundwater or surface water from the operation of Darlington facilities.
- The environmental monitoring program continues to demonstrate that the public dose attributed from the operation of NSS-D <1% of the public dose limit of 1 mSv/year and < 1% of the background radiation of 1.4 mSv/year.



Public Safety – Emergency Response

- Comprehensive on-site and off-site emergency response capability.
- Continuous scenario-based training is practiced and tested on a regular basis.



Commitment to Community Engagement

- At OPG, we know our role in the community is about much more than safely generating electricity. It's about being a good neighbour.
- OPG has developed a strong Social Licence through consistent and meaningful engagement with our communities through:
 - Educational programs and events,
 - Environmental Stewardship
 - Tours and Presentations



Commitment to Indigenous Communities

- OPG is committed to working with Indigenous communities to develop positive relationships and generate shared social and economic benefits through our **Reconciliation Action Plan (RAP)**. Our RAP outlines:
 - Commitments to actions and timelines in 5 focus areas: Leadership, relationships, people, economic empowerment, environmental stewardship
 - OPG commits to growing its economic impact for Indigenous communities and businesses to \$1 billion over 10 years through operations and initiatives
- We strive to build relationships based on the principles of respect, integrity and mutual responsibility.
- While we have made progress, we also recognize that we still have a lot to learn.



See www.opg.com for details of the Reconciliation Action Plan (RAP)



Artwork displayed at the Centre for Canadian Nuclear Sustainability (CCNS) in Pickering, Ontario
Artist JonnyOneThree

Summary

- OPG has proven to be a competent and responsible operator of the Darlington Waste Management Facility.
- OPG remains committed to continuous open and transparent communication.
- OPG has and will continue to make adequate provision for:
 - The health and safety of persons,
 - the protection of the environment, and
 - the maintenance of national security and safeguards.



Nuclear Sustainability Services

Stewardship
Lasting Solutions
Peace of Mind

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