

Performance Report for Nuclear Waste Management

Performance Update

As part of our commitment to keep you informed, this report tracks performance for Ontario Power Generation’s Nuclear Waste Management facilities in the areas of safety, operations, and the environment. It also summarizes significant accomplishments achieved during the fourth quarter of 2020.

Safety

Total Reportable Injury Frequency (TRIF)

TRIF is a measure of the number of injuries involving OPG employees that result in a fatality, a lost time, requiring restricted work or requiring medical treatment per 200,000 hours worked. An injury in Q1 placed the TRIF at 1.95. With no incidents since then, the year-end TRIF improved to 0.49, but due to a relatively small work force, the target of 0.20 was not recoverable.



Transportation Safety

The transportation of waste to our Western facility from Darlington, Pickering and Bruce Power is managed by experienced and skilled drivers. In this quarter, all shipments were made safely and accident-free and the fleet safely travelled 124,000 additional kilometres. At the end of December 2020 over 5.35 million kilometres were safely travelled.



Environment - Spills to the Environment

In this quarter, and all of 2020, there were no spills to the environment at our waste facilities that were reportable to a regulatory authority. For detailed environmental information, please refer to the environmental data reports available on www.opg.com under Reporting.



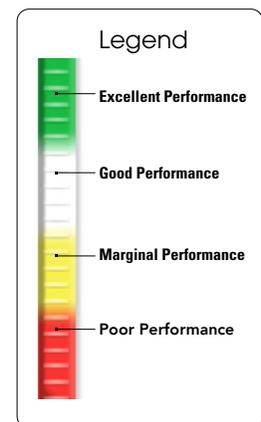
Operational Performance

A total of 223 Used Fuel Dry Storage Containers (DSC) were transferred up to the end of Q4. This was six above the year-end goal of 217.



Incinerator Performance

The incinerator processed a total of 1147 cubic metres of low-level waste up to the end of Q4. Due to an extensive refurbishment outage earlier in the year this was below the year-end target to process 1,791 cubic metres.



About OPG's Nuclear Waste Management

OPG's Nuclear Waste Management (NWM) manages three sites. The Western Waste Management Facility (WWMF) in Bruce County receives and manages the low- and intermediate-level waste for the Darlington, Pickering and Bruce Power nuclear stations. Low-level waste is volume reduced through incineration or compaction. Used-fuel Dry Storage Containers are managed at facilities located at Pickering, Darlington and WWMF.



Delivering Refurb Waste Containers.



Pickering UF Building 4 opening.



Port Elgin Food bank donation.

The following summarizes items of interest or milestones achieved by Nuclear Waste Management and across OPG:

Nuclear Waste Operation

- The completion of Pickering Waste Management Used Fuel Storage Building number four was marked at a ribbon-cutting event on Oct. 19, 2020. This important milestone was reached through the efforts of our OPG team and contract partners. Storage building four will house 624 Dry Storage Containers.
- In support of Darlington Refurbishment, the Darlington Waste Management Facility's Refurb Waste Storage Building (RWSB) began just-in-time delivery to provide temporary storage of empty, clean Retube Waste Containers (RWCs) and Darlington Storage Overpacks (DSOs). To provide shielding, loaded RWC's will be placed in a DSO while in the RWSB. RWC's will be removed from DSOs for transportation to long-term storage in 25 years. The last receipt is expected early in 2021.
- NWM's Radioactive Materials Transportation team reached a key milestone as part of Darlington's and Bruce Power's refurbishment projects. The last shipment, containing 10 feeder tubes, which provide cooling water to each fuel channel, removed from Bruce Power's B plant, was transferred and safely stored at the WWMF. The transporting of spent feeder tubes, from all of OPG's owned stations, is now 20 per cent complete.

OPG News

- Ontario Power Generation (OPG) announced resumption of planning activities for future nuclear power generation at its Darlington site, to host a Small Modular Reactor (SMR). This will pave the way for development of the next generation of nuclear power in Canada. A new SMR development on this site as early as 2028 would benefit all Ontarians.

- OPG released its Climate Change Plan, aimed at driving efficient, economy-wide decarbonization and economic renewal, while protecting the environment. The plan establishes two major goals: Commit to being a net-zero Carbon Company by 2040 and commit to being a catalyst to help the markets where we operate to achieve net-zero carbon economies by 2050.
- In December, OPG submitted a rate application to initiate the approval process for the Ontario Energy Board (OEB) to establish its 2022-2026 rates, based on OPG's costs and production forecasts for the next five years. The rates make up about 90 per cent of OPG's revenue for the electricity it generates for Ontario.
- Darlington's Unit 3 marked the official start of construction. Drawing on lessons learned from Unit 2 Refurbishment, Darlington's Unit 3 completed the defuel campaign ahead of schedule on November 26, and proceeded to complete physical isolation from the three remaining operating units. Once this reactor nears completion OPG will move towards refurbishing remaining Units 1 and 4. Darlington's Refurbishment project will provide another 30 years of operation and electricity to Ontarians.

In the Community

During 2020, NWM provided three tours, held 45 live or virtual information-sharing meetings with Bruce County stakeholders and municipal councils, eight U.S. political organizations, seven meetings with Metis groups and three meetings with Saugeen Ojibway Nation. Twelve print and online media advertisements were posted locally. The Western site supported 49 initiatives in Bruce County including: five environmental initiatives, three Indigenous initiatives, two educational initiatives, and 39 community virtual events, festivals and fairs.