

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 2018.

Safety

Total Reportable Injury Frequency (TRIF)

The TRIF is a measure of the number of injuries involving OPG employees that result in a fatality, a lost time, requiring restricted work and requiring medical treatment per 200,000 hours worked. During the fourth quarter, the TRIF was zero. At the end of December Nuclear Waste Management achieved 7.75 years without a lost-time incident.



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 safety traveled 110,000 additional kilometres. At the end of December 2018, 4.5 million kilometres were safely traveled.



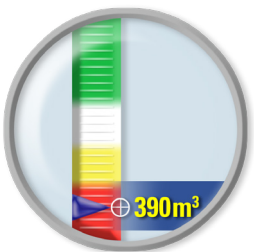
Environment – Spills to the Environment

Our waste facilities experienced no spills to the environment this quarter that were reportable to a regulatory authority. For detailed environmental information, please refer to the environmental data reports available on www.opg.com under **News and Media**.



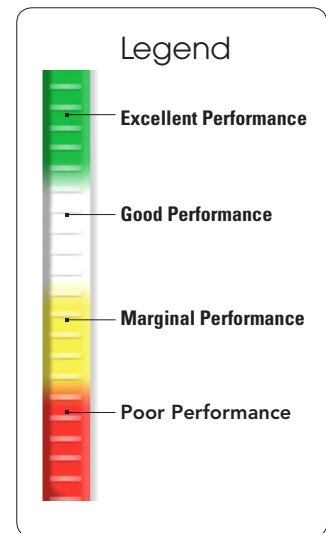
Operational Performance

A total of 203 used fuel Dry Storage Containers were processed up to the end of December, which is 9 below the year-end goal of 212. This was due to loading equipment issues earlier in the year at the Bruce Site.



Incinerator Production

Due to an extended planned outage, the incinerator was unable to process waste in Q4 and did not meet its year-end production target of 1,050 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 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.



OPG Float in Santa Claus Parades



Corporate Citizenship Program provided support for groups in Saugeen Shores



Huron-Kinloss tour of Used Fuel Storage

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

Nuclear Waste Operation

- Western Waste Management fleet vehicles transitioned to the new Mitsubishi Outlander PHEV (Plug-in Hybrid Electric Vehicle). The transportation sector accounts for approximately 30 percent of greenhouse gas emissions in Ontario, and the electrification of transportation offers a key opportunity to reduce carbon emissions. The transition to electric vehicles is yet another way that OPG is helping to mitigate climate change, transform its energy use, and boost low-carbon innovations for the future.
- A Peer Resin Team responsible for the over-all management, shipping and storing of resin at OPG and Bruce Power facilities, was challenged to double their average amount of shipments to storage, in preparation for Bruce Power's Major Component Replacement. At the time, Bruce Power was averaging 8-12 shipments a year, Pickering was averaging 10, and Darlington 4. The new goal was to complete 47 shipments. At year end, the Peer Resin Team successfully planned and executed 50 shipments, exceeding this goal.

OPG News

- In November, OPG grew its business by completing the acquisition of Eagle Creek Renewable Energy, a hydropower platform with interests in 76 hydroelectric generating stations and two solar facilities throughout the United States.
- Darlington Refurbishment remains on budget and on schedule two years after the project began. In 2018, we finished disassembling Unit 2 and started the work to put it all back together again with new reactor components. Our success was recently validated by the Auditor-General of Ontario, who acknowledged the refurbishment's progress

and execution in her 2018 Annual Report. Unit 2 will be returned to commercial service and once again generating electricity for the province by February 2020.

- OPG received a Canadian Electricity Association award for our safety performance compared to our external benchmarks. OPG also received two national awards from the Employee Assistance Trade Association and Benefits Canada for our programs focused around total employee health.
- For the fourth consecutive time, the World Association of Nuclear Operators (WANO) gave the Darlington Nuclear station another excellent evaluation. This continues to place Darlington Nuclear among the top-performing nuclear plants in the world. The results of this report clearly demonstrates Darlington's strong safety culture and tireless commitment to excellence in performance and reliability.

In the Community

- During 2018, NWM provided tours to 45 groups reaching 502 people and held information-sharing meetings with 44 First Nations, Métis, municipal, federal and provincial officials in Ontario and seven groups in the U.S. The Western site supported 82 community initiatives in Bruce County such as: 10 environment initiatives, 17 festivals and fairs including two Pow-Wows and a Round Dance with the Saugeen Ojibway Nation, the Annual Historic Saugeen Métis Rendezvous, Port Elgin's Pumpkinfest, Kincardine Scottish Festival and Blues Festival. Through December, WWMF supported Saugeen Valley Conservation's Christmas in the Country, four local food banks and participated in three Santa Claus parades.