

FALL 2015

A proud part of the community since 1978

DARLINGTON NUCLEAR

Neighbours Newsletter

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Tuesdays on the Trail Wraps up

Hundreds of children and their families joined OPG this summer for another successful Tuesdays on the Trail program.

Thanks to the generosity of our community partners and student volunteers, Darlington Nuclear staff were able to bring free high-quality educational activities to the community once again.

This year we delivered programs in partnership with: Central Lake Ontario Conservation Authority (CLOCA); Clarington Public Library; A Gift of Art; Yogi Francesca Bonta; Driftwood Theatre Group; and Kimberly Wheatley from Shawanaga First Nation Reserve. Thanks again to all the families who attended. We hope to see you next year.



Young artists at work.



Meet OPG's New President and CEO

Jeffrey J. Lyash, OPG's new President and CEO, transitioned into role in late August following the retirement of Tom Mitchell. Mr. Lyash has more than 30 years of experience in the energy sector and most recently led one of the largest power engineering, procurement and construction organizations in the United States. At Duke Energy, he led the largest non-nuclear fleet in the U.S., producing more than 3,000 MWs of conventional and pumped-storage hydro electricity across seven states.

"Jeff is a proven leader with over 30 years' industry experience and a history of producing excellent results in a wide range

of business functions, from electricity generation to economic development and customer service," said Board Chair Bernard Lord. "We are fortunate to have secured someone of his talents and know-how, particularly when it comes to nuclear energy. His work on complex engineering projects will help ensure OPG's refurbishment of Darlington Nuclear is delivered on time and budget."

Mr. Lyash believes in a strong safety culture, and is committed to ensuring OPG continues to provide the province with safe, reliable, greenhouse emission-free power.

ONTARIOPOWER
GENERATION



SVP Message, Brian Duncan

Back to school time is always a flurry of activity in our house. This fall will be a little different though, as our youngest (our daughter) is heading off to university to continue her education.

In my 35 years in this business, I've come to enjoy the chance to learn something new and work on

new projects. This fall at Darlington, our team is busy preparing for several major activities – our Vacuum Building Outage (VBO), the Refurbishment Project, potassium iodide (KI) pill distribution and the upcoming station relicensing hearings.

In September, we begin our VBO, a major project involving the shutdown of all four units to allow inspection and maintenance of our Vacuum Building, a key safety component at our station. More than 34,000 tasks will be performed over 52 days, with more than 1,000 extra staff on hand to assist.

In October, local residents will be receiving KI pills by mail. The pills will be delivered with clear instructions, and are only to be taken in the unlikely event of a nuclear emergency. Previously, a supply of KI pills was available through local pharmacies and stored on your behalf by the Durham Emergency Management Office. As always, we will be here along with the Region of Durham to answer any questions you may have.

In November, I invite you to participate in our station relicensing hearing, which will be held in Courtice. Public participation is a key part of the relicensing process.

Finally, while we are still a year away from taking the first unit off-line for refurbishment, the preparation work is in full swing. As of this summer, 59 companies from the community and across Ontario are busy supporting nuclear refurbishment projects at Darlington. If you drive by the station, you'll get a sense of all the construction going on in anticipation of the project.

Three years ago I committed to you that we would continue to earn your trust by safely and efficiently operating our plant, and by maintaining open and transparent lines of communication. We will continue to share information about the station via this newsletter, our Public Information Centre, our website, community presentations and more. We're proud of the work we do and we very much appreciate your ongoing support and involvement.

Have a great Fall!

Brian Duncan
Senior Vice President
Darlington Nuclear

Darlington Relicensing Hearing Update



Starting Monday, Nov. 1, the Canadian Nuclear Safety Commission (CNSC) will hold public hearings to consider OPG's application to operate the Darlington Nuclear Generating Station for another 13 years. The current operating licence is valid until Dec. 31, 2015.

This licence term would cover the time required to complete the refurbishment of all four Darlington reactor units. It would also be the first step in a new licensing framework being developed by the CNSC, one that allows longer-term licences - consistent with international practice.

The hearing will be held from Nov. 2 to 5 at Hope Fellowship Church, 1685 Bloor Street in Courtice.

Public hearings are an essential part of the relicensing process, and members of the public are invited to provide comments to the Secretary of the Commission by Sept. 28.

For more information about the hearing, visit the CNSC website: nuclearsafety.gc.ca. To review OPG's submissions to the CNSC, please visit opg.com/generating-power/nuclear/stations/darlington-nuclear/Pages/Darlington-Nuclear-Licence-Renewal.aspx.



Tuesdays on the Trail participants learned about wildlife during a biodiversity hike along the Turtle Trail with Central Lake Ontario staff.

Safety takes preparation.

In the highly unlikely event of a nuclear accident, a potassium iodide (KI) pill is a key component to keeping you and your family safe. There's no such thing as being too prepared.

For more information visit www.preparetobesafe.ca

Keep an eye out for your KI pills in the mail.

*For those living or working within 10km of the Pickering or Darlington Nuclear Stations.

Potassium Iodide (KI) Pill Distribution

This fall, all homes and businesses within 10 km of the Pickering and Darlington nuclear stations will receive potassium iodide (KI) pills in the mail.

The Canadian Nuclear Safety Commission (CNSC) requires KI pills be distributed to all homes and businesses around all Canadian nuclear stations in the unlikely event of a nuclear emergency, due to increased safety standards. Previously, KI pills were stored at local emergency centres.

KI is one of the most effective precautions to protect the thyroid gland from possible radiation injury. A KI pill saturates the thyroid gland with stable (non-radioactive) iodine, reducing the risk of developing thyroid cancer.

Shortly after Labour Day, Durham residents will have received a letter from the Medical Officers of Health letting them know the distribution plan. This coincides with public information notices and two drop-in community information sessions from 5 – 9 p.m. on the following dates and locations:

- Wednesday, Oct. 21 – Clarington Beech Centre
- 26 Beech Ave, Bowmanville
- Thursday, Oct. 22 – Pickering Nuclear Information Centre
- 1675 Montgomery Park Road, Pickering

KI pills are being distributed throughout the month of October in partnership with the Region of Durham and the City of Toronto, following guidelines established by the CNSC.

Did you know?

Nuclear and the Canadian Economy

The nuclear industry supports more than 60,000 Canadian jobs. About 25,000 jobs are related specifically to the generation of electricity; with medicine, materials science, advanced manufacturing, and food safety accounting for more than 30,000 jobs. Canada is the second largest uranium producer in the world, with more than 5,000 jobs directly related to uranium mining.

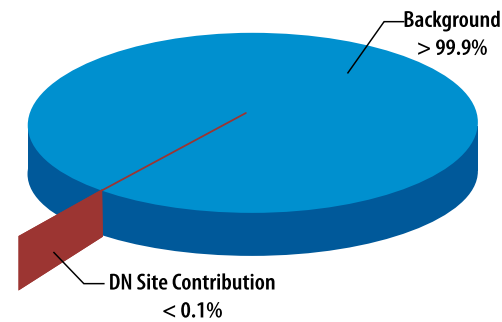
Annual Environmental Monitoring Results

OPG has a number of processes in place to minimize any emissions from Darlington and Pickering Nuclear, ensuring they remain a small fraction of the allowable regulatory limit, as they have been for the entire operating history of both stations.

Each year, results from OPG's Environmental Monitoring Program (EMP) are analyzed to determine any environmental impacts from our nuclear generating stations. Thousands of environmental samples are taken from a variety of sources, including air, lake water, beach sand, fish, vegetables, milk, and soil.

The 2014 EMP report concluded that Darlington's annual public dose equivalent was 0.6 microsieverts, a fraction of the annual regulatory limit of 1,000 microsieverts set by the CNSC. The findings were validated by a third-party expert and by independent testing carried out by the Canadian Nuclear Safety Commission. The full report can be reviewed at: opg.com/news-and-media/Pages/reports.aspx.

All Canadians are exposed to naturally occurring radiation, mostly from the sun, rocks and naturally occurring radon gas. Exposure to radiation in humans is measured in microsieverts. The average exposure of Canadians is 1,770 microsieverts a year. Activities such as a flight to Vancouver (40 microsieverts) or a dental X-Ray (100 microsieverts) can add to that amount. Nuclear power generation generally adds less than 0.1 per cent to the background radiation around nuclear facilities in Canada.



Typical Doses from Exposure to Natural and Anthropogenic Sources	
Source	Exposure (in microsieverts)
CNSC regulatory limit	1,000
Natural background in Durham	1,400
Chest X-ray	100
Airplane flight (2 hrs)	12
Darlington station contribution in 2014	0.6

Joint Review Panel Recommends Deep Geologic Repository Proceed

After more than 14 years of study and consultation, a federal Joint Review Panel has recommended the federal government approve OPG's proposed Deep Geologic Repository (DGR) for Ontario's low and intermediate level nuclear waste. The report, issued in May, concludes that the safety of the Great Lakes, the environment and the public is assured and recommends that construction of the DGR proceed.

The DGR would be located at the site of the existing Waste Management Facility at the Bruce nuclear site in the Municipality of Kincardine. The low and intermediate level waste would be safely stored 680 meters underground in stable rock formations that are over 450 million years old.

The report follows an extensive public consultation process and one of the most comprehensive and science-based nuclear waste storage reviews in Canadian history. The federal Ministry of the Environment is now reviewing the report and related public comments. A decision on the licence to prepare the site for construction is expected in December.

What Is Low and Intermediate Waste?

Low-level waste includes items such as mop heads, paper towels, and protective clothing that have become contaminated during station maintenance activities.

Intermediate-level waste consists primarily of used components, resins and filters used to purify reactor water systems.

Low and intermediate level waste does not include spent fuel bundles.

Ninety-five per cent of the waste produced is low level and five percent of the waste is intermediate. OPG staff reduce the amount of low and intermediate level waste in a number of ways, including eliminating unnecessary packaging.

Construction Update around Darlington Nuclear

The Ministry of Transportation (MTO) continues construction work required for the Holt Road/401 interchange and the realignment of South Service Road for the Highway 407 East Project.

To ensure the safety of trail and soccer field users, the north section of Darlington's portion of the Waterfront Trail will remain closed for the 2015 season as it is re-constructed to current municipal standards, affording barrier-free access to users.

OPG has been working closely with the MTO, the Municipality of Clarington and the Darlington Soccer Club to minimize any impact to recreational and trail users. Should you have any questions, please contact our information line at (905) 623-7122 or DarlingtonNuclear@opg.com.



NATIONAL ABORIGINAL DAY AT DARLINGTON

Community members and OPG employees joined together in June to recognize National Aboriginal Day at Darlington. Hosted by OPG's Native Circle employees, the event celebrated the unique heritage, diverse cultures and achievements of First Nations and Métis peoples in our communities with inspirational performances and the sharing of traditional foods.

Kimberly Wheatley from Shawanaga First Nation Reserve. Turtle Clan provided a prayer and song, and the acclaimed Mohawk musician and sculptor, David R. Maracle of the Tyendinaga Mohawk Territory gave a performance accompanied on stage by Kimberly Maracle.

Neighbours



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