

PICKERING NUCLEAR

Neighbours Newsletter

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ISSUE

ISO 14001
RETAINED

FUKUSHIMA
LEARNINGS

RICK HANSEN
MEDAL BEARER

CIRCLE YOUR
CALENDAR

INVESTMENT
IN DURHAM

REGULATORY
MILESTONES

Bringing Back the Salmon

More than 100 enthusiastic Holy Redeemer Catholic School students joined Ontario Power Generation (OPG) staff at the Pickering Information Centre for the opening of an educational salmon hatchery earlier this year.

OPG is the lead partner in the Bring Back the Salmon program with the Ontario Ministry of Natural Resources, the Ontario Federation of Anglers and Hunters, and a number of other organizations. This program is designed to help restore the Atlantic salmon population in Lake Ontario by 2020.

Pickering Nuclear received 100 salmon eggs for the hatchery and over the next few months the students will track the progress of the eggs as part of the outreach and educational program component of the program. In late spring, they will release the fry (young salmon) into Duffins Creek in Claremont Conservation Area.

The Atlantic Salmon Classroom Hatchery Program is one of the educational components of the program. The other three components of the restoration program are: fish production and stocking, water quality and habitat enhancement, and research and monitoring.



Salmon raised in the Information Centre hatchery become part of the overall number released into the target streams annually.

Northern Pike Habitat Enhancement

Ontario Power Generation has partnered with the Toronto Region Conservation Authority on a northern pike habitat restoration project in Duffins Creek Marsh. The completed work creates accessible spawning habitat for northern pike and offers some benefits for other fish species as well. It also provides a habitat for local reptiles and amphibians, plus provides foraging and resting opportunities for migratory birds. Most of the work was completed in early January with some aquatic planting to be completed in the spring. A monitoring program will measure the expected increase in northern pike population.

Fish Protection Net Better Targets for Second Year

After its second full cycle of operation, OPG Pickering's fish protection net has again bettered its 80% target for fish impingement.

The net is part of an improvement effort to mitigate the stations' impact on fish. The 610-metre net with half-inch mesh was installed across the mouth of the water intake channel to turn away fish that could otherwise gain entry.

The net was removed from service for the winter and will be reinstalled in April.

The net is not left in place year round as it also intercepts algae which must be removed by divers. Winter weather conditions on the lake make it unsafe for this work to be completed. Fish are less active and less likely to enter the channel during winter months due to the colder water.



ISO 14001 Certification - Pickering Nuclear
Environmental Management System

ONTARIO POWER
GENERATION



**A message from
Glenn Jager,
Senior Vice President,
Pickering Nuclear**

Ontario Power Generation is committed to continuous

improvement and value for our shareholders. So, with the successful completion of the Safe Storage Project for Units 2 and 3, Pickering Nuclear staff began reviewing the best way to focus on maintaining and safely operating six units.

We have found some opportunities to streamline our processes, gain more flexibility and efficiencies in our resources, and enhance production.

In fact, with the two stations now having the same timeline for renewing their operating licence with the Canadian Nuclear Safety Commission, we are now operating as Pickering Nuclear rather than as Pickering A and Pickering B.

Most departments have already been amalgamated successfully. For example, our scheduling groups now work collaboratively across the site to team up maintenance crews, allowing them to share experience and improve efficiency.

Our ultimate goal remains unchanged. We are committed to providing value for consumers through safely and efficiently providing energy to the Province of Ontario.

I'm pleased to report that Pickering Nuclear employees have worked more than four million hours without a lost-time injury. OPG employees at Darlington Nuclear recently surpassed more than 12 million hours without a lost-time injury.

Both these milestones are significant achievements and a source of pride. However, it's not the milestones we're most proud of, but the behaviours leading to the milestones – the safe, day-to-day work that ensures all employees go home to their families at the end of each day in the same shape they arrived.

Retention of Environmental Certification

Following an extensive bi-annual audit, Ontario Power Generation has successfully retained its ISO 14001 certification for Environmental Management Systems at Pickering Nuclear, Darlington Nuclear, and support organizations.

This quality standard and certification process exists to help organizations:

- minimize how their operations negatively affect the environment;
- comply with applicable laws, regulations, and other environmentally oriented requirements; and
- continuously improve environmental stewardship.

Six-month Public Comment Period Begins Proposed Deep Geologic Repository

A six-month public comment period has been announced by the federally-appointed Joint Review Panel (JRP) for Ontario Power Generation's proposed Deep Geologic Repository (DGR) project for low and intermediate level waste to be built in Kincardine.

The public comment period provides an opportunity for the JRP, the public and Aboriginal communities, to review and comment on the Environmental Impact Statement (EIS) and Preliminary Safety Report (PSR) documents. These documents and more information on the project can be found at www.opg.com/dgr.

All public comments will be posted to the Canadian Environmental Assessment Agency registry as part of the public

record for the DGR project.

The EIS and PSR conclude the DGR is not likely to result in any significant adverse residual effects to human health or the environment, given mitigation.

Once the JRP is satisfied all information, documents and comments have adequately addressed the environmental guidelines for the project, the public comment period will conclude and a public hearing will be held. The JRP will then submit a report to the federal Minister of Environment.

If you have any questions about the process or how you can get involved, please contact: dgrinfo@opg.com or call 519-368-1639.

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 maintenance activities.

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

Low and intermediate waste does not include used fuel bundles.

Ninety-five percent of the waste produced is low level and five percent is intermediate.

Ontario Power Generation reduces the amount of low and intermediate waste produced in its nuclear stations in a number of ways, including eliminating unnecessary packaging and using longer-lasting metal pallets rather than wood pallets.

Corporate Knights names OPG in Top 50

Corporate Knights Magazine has named Ontario Power Generation one of the 50 best Corporate Citizens in Canada. The magazine, a major advocate of "clean capitalism" and sustainable development, released its rankings in June. The corporate rankings were based on environmental, social and governance indicators as well as on the management of carbon, energy, water usage, and waste production.

Safety Enhancements post-Fukushima

This month marks the first anniversary of the devastating earthquake and series of massive tsunamis off the northeast coast of Japan. That nation continues to recover from the physical devastation and tragic loss of human life and suffering. Ontario Power Generation and nuclear operators around the world have lent support to Japan's Fukushima Nuclear Power Plant and looked for opportunities to improve our own stations.

Our studies, and the Canadian Nuclear Safety Commission's, confirmed our stations are safe. We confirmed the geology at our sites is stable and our nuclear safety systems are robust – with redundant back-up power. A Fukushima-type accident could not happen here as our stations provide a strong defense against both external and internal threats to safety. We also identified opportunities for even greater measures of defense.

Here are some of the actions we've taken to address key lessons from Fukushima.

- Installation of new hydrogen mitigation equipment to prevent hydrogen build-up. This technology operates without the need of power.
- Portable diesel generators and pumps have been purchased to add flexibility in supplying essential fuel cooling through multiple paths. This is in addition to our numerous existing stand-by generators, emergency generators and auxiliary back-up power systems.
- We are providing added protection to used fuel bays and

speeding up the process of safely storing used fuel in above ground dry-fuel containers.

There are other Fukushima-related projects underway or planned for implementation between now and the end of 2016. We are committed to strengthening the already significant robust safety systems at our nuclear stations. These initiatives represent a substantial investment in public safety and environmental protection.

When it comes to safety we believe we must constantly learn, constantly improve, and constantly earn the confidence of the communities and people we serve.

In a speech to attendees of the annual Canadian Nuclear Association last month, Tom Mitchell, President and CEO of Ontario Power Generation shared what happened at Fukushima, OPG and other nuclear operator's response, and the implications for the nuclear industry.

As chair of the WANO (World Association of Nuclear Operators) Post Fukushima Commission, he also shared an important shift in that organization's focus. WANO will continue its excellent efforts in helping to prevent nuclear station events, but will work more with operators to mitigate the consequences of any events that may occur.

If you would like to read the speech, please visit the following online link: www.opg.com/news/speeches.asp <<http://www.opg.com/news/speeches.asp>>

Medal Bearer for Rick Hansen Relay

Twenty-five years ago, Canadian paralympian Rick Hansen established the "Man In Motion World Tour", a 26-month journey through 34 countries by wheelchair. The initiative raised awareness of people with disabilities, the importance of accessible living, and the need to find a cure for spinal cord injuries.

Last fall, the Rick Hansen 25th Anniversary Relay retraced the 12,000 km Canadian segment of the original tour. We're proud of Marion Croft, an OPG employee in Pickering, selected to be a Relay Medal Bearer. The criterion for selection was "making a difference in the lives of others."

Marion was 19 months old when she contracted polio. She battled through 23 surgeries, thankful for the support of her family, friends, and the medical community. Marion emerged from extremely difficult circumstances to be an independent, productive, and positive individual.

An OPG employee for nearly 21 years, Marion keeps a full schedule as a motivational speaker on topics including: the importance of a positive attitude; safety in the workplace; and overcoming physical barriers.



Circle Your Calendar

We're excited to partner on a number of environmental and community building events in the next couple of months.

March 21 – 6 to 9 p.m. – Rouge Hill Bowling Centre OPG is proud to partner on Bowl for Kids' Sake again this year in support of Big Brothers & Sisters of Ajax-Pickering. Have fun and help programs that change lives. www.bbandsopaf.com

March 21 – 7 to 9 p.m. – Dunbarton High School Environmental Stewardship Pickering celebrates Canada Water Week with an exclusive screening of Mysteries of the Great Lakes. A donation of a non-perishable food item is appreciated.

April 21 – 9 a.m. to noon – Alex Robertson Park Join OPG, City of Pickering, Toronto Region Conservation Authority, and community partners to plant trees in Alex Robertson Park. More than 10,000

indigenous trees and bushes have been planted to date. Bring your shovel. For more information, please phone 905-837-7272.

May 6 – 10 a.m. to noon – OPG Information Centre Support families impacted by workplace tragedy and Steps for Life Durham by joining their walk along the Pickering Waterfront Trail. www.stepsforlife.ca

Darlington Energy Complex – An Investment in the Future

Part of continued investment in Durham Region

Ontario Power Generation (OPG) has made significant progress on plans to refurbish the four Darlington Nuclear reactors.

A visible part of this project is the Darlington Energy Complex, being built west of the Darlington station. Since the official ground breaking ceremony in July, 2011, the site has been transformed and continues to change daily.

The addition of steel beams, walls and windows give a hint to the final size of this important 250,000 square-foot facility. It will contain a public information centre, security processing centre, tooling and testing facility -including a full-scale mock-up of a Darlington reactor, which will allow staff working on the Darlington Refurbishment project to be trained prior to performing the intricate work inside the station.

In keeping with OPG's commitment to environmental protection and accountability, 97.8 percent of construction waste from the site has been diverted from landfill. The facility will also be a candidate for a LEED-registered project with the Canada



Green Building Council as part of OPG's commitment to conservation and environmental responsibility. Construction is scheduled to be complete in the summer of 2013.

Regulatory Milestones Achieved for Darlington Refurbishment

Two other important Darlington Refurbishment project milestones were reached at the end of last year.

OPG completed the Integrated Safety Review and submitted the findings to the Canadian Nuclear Safety Commission (CNSC). The report concluded the units at the Darlington station can safely operate for the duration of its current design life and for 25 to 30 years post-refurbishment, posing no risk to the public or station employees.

OPG also submitted the Environmental Impact Statement

and technical documents in support of the Environmental Assessment for refurbishment and continued operations. OPG's studies conclude Darlington Refurbishment and continued operations will not result in any significant adverse effects, given mitigation.

The CNSC recently announced they will provide up to \$150,000 in participant funding to assist members of the public interested in taking part in the Environmental Assessment process.

OPG continues to focus on the extensive front-end planning for

Refurbishment which is a key to the success of the project. That includes establishing a clear definition of the scope of work to be done, as well as the cost and schedule prior to project execution.

A refurbished Darlington station will provide clean, reliable, cost-efficient electricity for the people of Ontario, for an additional 25 to 30 years. For more information about Darlington Refurbishment, including information about the CNSC's Environmental Assessment participant funding program, visit opg.com/power/nuclear/refurbishment or <http://www.opg.com/>

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