

PICKERING NUCLEAR

Neighbours Newsletter

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Lessons Learned From Japan

Following the earthquake and tsunami in Japan, OPG immediately began working with Canada's nuclear regulator, the Canadian Nuclear Safety Commission (CNSC), and nuclear industry groups such as the World Association of Nuclear Operators (WANO) to understand and learn from this event.

"Within a week of the event, OPG launched an experienced team to review the early lessons learned and report all findings to the CNSC," says Wayne Robbins, Chief Nuclear Officer. "Our station inspections and reviews are now complete and demonstrate that OPG nuclear facilities are safe, robustly designed, and will withstand emergencies."

This doesn't mean that OPG will be complacent. A thorough review of additional lessons learned from Japan continues as the team examines potential improvement opportunities for events beyond what had been previously imagined. OPG will also continue to offer its assistance to Japan.

* * *

OPG President and CEO Tom Mitchell was named Chair of the WANO Post-Fukushima Commission. The 14-strong international committee will advise on how lessons learned can be applied by operators of all nuclear facilities around the world.

Annual Environmental Monitoring Results 2010

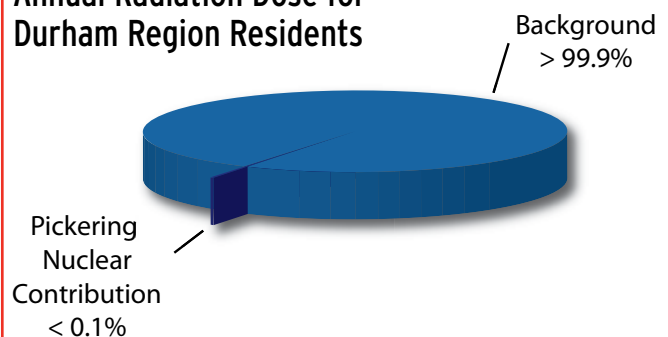
The Radiation Environmental Monitoring Program (REMP) annual report for 2010 has been issued and it demonstrates that the highest possible public radiation dose from the operation of Pickering Nuclear and Darlington Nuclear is 0.1% of the regulatory limit. And for most people living in Durham Region it is even less.

"We practise the ALARA Principle (As Low As Reasonably Achievable) and set our own internal target at less than one percent of the regulatory limit," says Pierre Tremblay, Chief Nuclear Operating Officer. "We're proud to achieve our target year after year."

Darlington's annual public dose dropped from 0.7 microsievert to 0.6 microsievert and Pickering's dropped from 1.8 to 1. The annual regulatory limit is 1,000 microsieverts.

By comparison, 1,400 microsieverts is the annual natural background radiation dose for residents of Durham Region.

Annual Radiation Dose for Durham Region Residents



The results are based on constant monitoring of any station emissions and results of thousands of samples taken from a variety of sources including air, lake water, beach sand, fish, vegetables, milk and soil. The REMF report is verified by an expert independent third party.

The report for 2010 is now available at opg.com.



ISO 14001 Certification - Pickering Nuclear
Environmental Management System

ONTARIOPOWER
GENERATION



**A message from
Glenn Jager,
Senior Vice-President
of Pickering A**

Following the events around the Fukushima nuclear station in Japan,

we would expect nearby residents to have some questions and concern. So, we have continued to proactively seek opportunities to provide answers.

Last month, I hosted a presentation with a question and answer session for local business leaders --members of the Ajax-Pickering Board of Trade. We talked about the geological differences, along with the station design and operational differences which mean we won't ever face a nuclear event like the one in Japan. And we answered some well thought out questions. By the end of the session, I believe all participants felt better informed and assured of our safe station operations.

Would it surprise you to learn that as employees of Pickering Nuclear we had questions ourselves as we watched the situation unfold in Japan?

As part of a continuous learning organization, we are always asking ourselves what we can learn from our experiences and the experiences of others. We're constantly striving to be better.

So, while we're confident in the continued safe operation of our nuclear stations, we're not complacent. We immediately launched a team back in March to review the lessons learned from Japan. The team has completed its station inspections and reviews which demonstrates that OPG nuclear facilities are safe, robustly designed, and will withstand emergencies. This doesn't mean we're done asking questions. A thorough review of additional lessons learned from Japan continues and all findings will be reviewed and verified by our regulator, the Canadian Nuclear Safety Commission.

I want to close by encouraging you to contact us if you ever have any questions or concerns at 905-837-7272 or pickeringnuclear@opg.com.

Ten Million Hours Without A Lost-Time Injury

Employees at Darlington Nuclear have now surpassed 10 million hours worked without a lost-time injury. That's world-class performance spanning more than three years.

Meanwhile Pickering A employees have worked more than three million hours without a lost-time injury and Pickering B employees have worked more than five million hours without a lost-time injury.

"OPG is committed to safety and the principle of Zero Injuries," says Stu Seedhouse, SVP of Darlington Nuclear. "We're determined to send employees safely home to their families at the end of each work shift. We work hard and smart to make that happen."

This safety performance has not gone unnoticed by the industry. Ontario Power Generation became the first Ontario recipient of ZeroQuest Platinum (Sustainability) Award from the Infrastructure Health and Safety Association.

More Than 11,000 Trees & Shrubs Planted in Alex Robertson Park

More than 200 people volunteered their time and labour to help plant more than 550 trees for our spring edition of Take Pride in Pickering on Saturday, April 30 in Alex Robertson Park. This tree planting was one of many special events in 2011 to mark the City of Pickering's bicentennial year.

Pickering Mayor Ryan, with the help of Regional Councillor Bill McLean, Councillor Doug Dickerson, and MPP Joe Dickson, planted a larger oak tree in commemoration of the City's 200th anniversary.

This biodiversity event has taken place at Alex Robertson Park (right next to Pickering Nuclear) twice a year since 2000. Over the years, volunteers have created a thriving wildlife corridor by:

- planting more than 11,000 native trees and shrubs;
- establishing several naturalized no-mow areas;
- planting 500 native wildflowers, a snake hibernaculum;
- installing 35 songbird boxes and two bat boxes; and
- building an ephemeral pond for amphibians and turtles.



Pickering Nuclear partnered with Environmental Stewardship Pickering, City of Pickering, Toronto and Region Conservation Authority, scout groups, Durham Medvents, along with other community organizations, high school volunteers and Ontario Power Generation employees to make the tree planting a great success.

Watch for more details on our Fall edition of Take Pride in Pickering and come out and participate on October 15.

Big Becky Breakthrough

Late last month, there was a historic event in the largest and most economical clean energy project in Ontario as Big Becky broke through to daylight.

Completion of the tunnel's boring machine's 10.2 km journey beneath the City of Niagara Falls is a major milestone in the project. While there have been challenges with

the project, President and CEO Tom Mitchell said, "This difficult phase was completed safely with no fatalities or serious injuries. That is a tremendous accomplishment and everyone on the project should feel proud of this."

When completed in 2013, OPG's Niagara Tunnel will provide enough additional water to the Sir Adam Beck stations to generate clean energy for about 160,000 homes.

Operation Clean Sweep

On Saturday, May 14, Operation Clean Sweep launched its fifth mission to support seniors requiring assistance with their yard work in Pickering or Ajax. Led by volunteer employees of Ontario Power Generation, teams visited 16 homes and completed a wide variety of tasks.

"It's really a great way to spend a Saturday," says Arham Hasan, an Assistant Technical Engineer. "The seniors are so appreciative and volunteers may be tired but they're definitely fired up at the end of the day."

So far, Operation Clean Sweep has supported about 56 seniors who can no longer rake leaves, weed gardens, trim bushes or complete other yard work. The assistance is much valued by the seniors.

"I will never forget," says Joe Amantea, an Assistant Technical Engineer, "when one of the seniors told me that we had restored her faith in humanity."

A date for another mission this fall is being confirmed. If you are a senior requiring assistance with yard work or would like more information, please contact Joe Amantea at 289-893-2994 or Arham Hasan at 647-241-4151.



Our Own Super Mario

Mario Bruno was welcomed into the Ontario Colleges Athletics Association (OCAA) Hall of Fame in a ceremony last month. His stellar career as soccer player with the Lords was earlier recognized with his induction into the Durham College Hall of Fame.



We don't have room to list all of Bruno's accomplishments, but want to mention that he was named an OCAA all-star for the 1986-87 season when he scored 17 goals. That's still a Durham College all-time single season record.

Bruno has been an Ontario Power Generation employee for more than 20 years. He shares his experience, knowledge, and leadership with co-workers as an Assistant Front Line Manager in the Radiation Protection and Safety Department at Pickering Nuclear.

As a volunteer with the Ajax Soccer Club, Bruno has also been sharing his experience, knowledge, and leadership. He has been training a new generation of strikers by coaching boys' and girls' teams.

Congratulations, Mario!

Bring Back the Salmon

John Murphy, Executive Vice-President, Hydro, waded into edge of Duffins Creek in Pickering last month to help release the three millionth fish for "Bring Back the Salmon". He also announced that OPG has agreed to become the lead sponsor in the five-year old program to restore a wild, self-sustaining population of Atlantic Salmon to Lake Ontario and its tributaries.

"A healthy Lake Ontario is important," John shared with other participants. "OPG is committed to improving the environment. This partnership is an excellent complement with the many fish and wildlife protection programs Ontario Power Generation has in place across the province."

The program is managed by Toronto Region Conservation Authority and Ontario Federation of Anglers and Hunters in partnership with Ministry of Natural Resources, and more than 40 other contributing partners. The tributaries that are being restored and stocked are Duffins Creek, Cobourg Brook, Credit River, Humber River, and Bronte Creek.

In the past, OPG has also partnered on rehabilitation projects in Durham Region for Second Marsh, Duffins Marsh, Westside Marsh, Hydro Marsh, and Frenchman's Bay.

For more information on Bring Back the Salmon, you may visit www.bringbackthesalmon.ca.



Farm Fresh Farmers' Market Wednesdays at Pickering Nuclear

Get ready to sink your teeth into fresh and locally grown produce at our weekly farmers' markets!

Every Wednesday from June 15 through October 5, vendors will line the parking lot on the north west side of Montgomery Park Road between 11 a.m. and 4 p.m.

Local farmers will offer a variety of products, ranging from farm fresh vegetables, fruits, and honey, to locally raised beef and lamb, and the always popular, kettle corn.

Buying local, farm fresh products helps keep Ontario's economy, environment, and neighbourhoods healthy and prosperous. Buying locally helps keep farmers and fresh foods in our communities.

OPG is proud to partner with Durham Farm Fresh and our local farmers with this event. Come check out their products. Once you do, we know you're going to be back again and again.

Please remember to bring cash, and if desired, a cooler to store perishables.



**Pickering Nuclear Community
Information Line: 905-837-7272**



Tuesday, July 5, 10 a.m. or 1 p.m.: **The Pollinators!**

Learn to identify local pollinators such as bees, butterflies, birds and beetles with experts from the Toronto and Region Conservation Authority. Play fun-filled educational games and make a bee nesting habitat to take home.

Tuesday, July 12, 10 a.m. or 1 p.m.: **"Mask"erade**

Calling all budding actors! Create your own mask and put it to work in Driftwood Theatre's children-friendly workshops and performances.

Tuesday, July 19, 10 a.m. or 1 p.m.: **Castles in the Sand**

Learn sculpting techniques and create a sandcastle under the guidance of Susan Lindo of Durham West Arts Centre. Park at the foot of Liverpool Road and look for the OPG tents on the beach just west of Pickering Nuclear. Dress for a mess!

Tuesday, July 26, 10 a.m. or 1 p.m.: **Turtle Teachings**

Spend time with Kim Wheatley from Shawanaga First Nation Reserve and discover the important role of turtles and the thirteen moon calendar in Aboriginal culture. Spot Alex Robertson Park's resident turtles during a pond walk and make your own turtle shaker to sing songs with and then take home!

Tuesday, August 2, 10 a.m. or 1 p.m.: **Wonderful World of Weaving!**

What were the residents of Pickering doing 200 years ago? Go "Back in Time" with Pickering Museum Village and celebrate Pickering's Bicentennial year. Weave your own heritage mug rug, play games and sing songs just like the early settlers would have done.

Tuesday, August 9, 10 a.m. or 1 p.m.: **Animal Candid Camera**

Have you said "cheese!" to a chickadee? Learn professional nature photography tips and tricks with experts from Toronto and Region Conservation Authority, and then join us for a nature photography scavenger hunt to practice your new skills!

Tuesday, August 16, 10 a.m. or 1 p.m.: **And he huffed and he puffed...**

Can the CN Tower be built from newspapers and masking tape or a geodesic dome large enough to crawl into? Become a structural engineer and learn the "secrets" used to make structures stable and strong with Scientists in School. Discoveries sure to amaze!

Tuesday, August 23, 10 a.m. or 1 p.m.: **CSI:OPG**

Leave no stone unturned! Come join the Forensic Science team from UOIT's Crime Scene Science Camp and learn how science can be used to solve crimes!

Tuesday, August 30, 8 p.m.: **Movie Under the Stars**

BYO lawn chairs and find a cozy spot on the grass for this last blast of summer fun at Alex Robertson Park. In partnership with St. Paul's on the Hill Community Food Bank. Bring non-perishable food items to help fill a truck.

All activities (except sandcastle building) start at Sandy Beach Road entrance to Alex Robertson Park. Weather permitting. Children must be accompanied by an adult, programs suitable for ages 6 to 12. Due to the nature of program activities, day care groups and camps cannot be accommodated.

Neighbours



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**ONTARIO POWER
GENERATION**

WE'RE READY... EMERGENCY PREPAREDNESS

While the chance of a severe nuclear emergency at one of Ontario Power Generation's (OPG) stations is extremely remote, it only makes sense to plan and prepare as if it could happen.

Following the nuclear event in Japan, we've fielded some questions about emergency preparedness and we know others may be asking themselves the same questions. So we've added this two-page insert to our regular Neighbours newsletter to first offer you some background on who is responsible for emergency preparedness and then some answers to the questions we've been asked.

No member of the public has ever received a harmful dose of radiation from a Canadian reactor in more than 40 years of operation.



Ontario Power Generation (OPG) has forged strong working partnerships with provincial, regional, and municipal emergency organizations. New City of Pickering fire fighters are shown here receiving conventional fire fighting training under the watchful eyes of OPG training staff at our Wesleyville training facility.

Who Manages Emergency Preparedness?

The Province of Ontario has the overall responsibility for ensuring the safety of the public and managing any off-site response if ever required for a nuclear emergency. OPG, Emergency Management Ontario (EMO), part of the Ministry of Community Safety and Correctional Services, and the regional and local governments work together to protect the public.

Each organization has responsibility for a distinct area of emergency response. The people, plans, and procedures that are put in place for a nuclear emergency response can also be called upon during more common emergencies like train derailments, ice storms or industrial accidents. Briefly, the nuclear emergency response is divided into three areas of responsibility.

OPG's first responsibility is to make sure our reactors are designed, operated, and maintained in such a way that accidents won't happen. In the very unlikely event that an accident does happen, our responsibility is to make sure it is controlled and any radiation releases are minimized. OPG is also responsible for notifying external agencies to make them aware of any incidents. And we are responsible for the safety of our employees.

OPG also assists the Province and local municipalities with funding and planning support for their emergency programs.

EMO is responsible for the overall Provincial Nuclear Emergency Response Plan (PNERP) and public safety during nuclear emergencies. They would communicate any public action, if required.

Regional and local municipalities all have emergency plans in place. But just as importantly, it is their emergency responders –the police, fire and ambulance crews, with support from a host of other groups, which make sure the emergency plans are implemented properly. Plans are important, but it is trained people that make them work!



Can what happened in Japan, happen here?

No. We will not face an earthquake and a tsunami of the magnitude suffered in Japan. Our nuclear generating stations are very robust in design and construction. Consideration includes highly unlikely accidents—even many happening at the same time. We have the ability to automatically shut down our reactors in less than two seconds. We have multiple back-up safety and cooling systems. We have several back-up sources of power to ensure our safety systems always remain available. All this gives us confidence that we will always maintain our ability to safely shut down and cool our reactors.

How will I be notified if there is an emergency in Durham Region?

The Province, through EMO is accountable for managing any public action that might be required in the event of any type of significant emergency. Of course, they work closely with Regional and Municipal officials, as well as OPG who is responsible for providing station information to the province to assist with their decision making.

Durham Region, with funding from OPG, installed a public alerting system within the 3km zone around both the Darlington Nuclear and Pickering Nuclear generating stations. It is important to note that the system runs on batteries that are charged by solar panels so they are not affected by power outages.

If the sirens are activated, they will sound continuously for three minutes. Should this occur, residents are asked to go inside, and check for further instructions on local television and radio stations. It is not a signal to evacuate.

These sirens will be tested audibly each spring and fall. Durham Region will issue public service announcements in advance to ensure awareness.

An automated telephone system is also available for notification in the event of any emergency. An evaluation into possible enhancements to this back-up system has been launched, with funding from OPG.

What should I do if I think I hear the siren but there's no information on television or radio?

Sometimes in the spring or fall, residents hear neighbourhood storm sewers being vacuumed and think it may be emergency sirens. A phone call to DEMO at 905-430-2792 will confirm whether the

emergency sirens have been activated or are being tested.

How quickly would I need to evacuate in the event of a nuclear event?

In the worst-case scenario for a CANDU reactor where a series of highly unlikely events and equipment failures occur, the station would release a controlled, small amount of steam between 24 hours to three days later.

How quickly can the 10km zone around the nuclear stations in Durham Region be evacuated?

This question was answered as part of the Environmental Assessment for the potential refurbishment of Pickering B. A study was completed by third-party experts and validated by key stakeholders. It was based on worst-case scenarios in traffic, weather conditions such as rain and snow, as well as peak travel times (to work, home from work, and long weekends). It included anticipated shadow evacuation of people beyond the 10km zone and the projected population to 2060.

The study demonstrated that in the highly unlikely event that an evacuation was required for the 10km zone around Pickering Nuclear, it would be completed well before any required release of steam from the station. It would only take between 4½ and eight hours.

Why are there evacuation plans only for the 10km zone around the nuclear stations in Ontario?

The Province has conducted several studies on nuclear emergency planning --to ensure the Provincial Nuclear Emergency Response Plan protects residents in the highly unlikely worst-case scenario. This plan outlines what is necessary, including establishing the contiguous zones (3km radius) and primary zones (10km radius) around nuclear stations, as well as secondary zones (50km radius). While evacuation beyond a 10km zone is not anticipated, it can be achieved through existing procedures and processes.

What are the designated evacuation routes?

There are no longer pre-determined designated routes as part of nuclear emergency planning. All possible routes out of the area will be utilized. Actual emergency experience and scientific analysis demonstrates that it is more effective to allow people to choose their own routes as they know best how to get where they are going.

Where do I go? Are there evacuation centres?

In the event of any emergency requiring evacuation, reception centres are established to provide shelter and other support necessary for residents displaced from their homes. The locations are determined based on the nature and location of the event.

In the highly unlikely event of required evacuation due to a nuclear station problem, reception centres may be established at Legends Centre in Oshawa, Durham College in Oshawa, Seneca College in Toronto, York University in Toronto, and Fleming College in Peterborough.

However, unless directed to go to a reception centre, people may choose to go to another location outside of the evacuated area – for example, to a relative's home or a cottage.

I don't drive. How will I get out of the area in the event of an emergency?

It is suggested that as part of your personal emergency plan, you consider family, friends, and neighbours who could provide you with a ride. If there is ever an emergency that requires your neighborhood to evacuate and you have no ride, then Durham Region and City of Toronto buses will use regular routes and stops to provide timely transportation.

A list of people requiring rides is not maintained as experience demonstrates that if you ever need the list, it is outdated with people moving in and out of the community and resources are wasted.

Do I need to keep KI pills in my home?

Given the length of advance warning and ability to safely evacuate up to the 10km zone before any release from our stations, it is not likely KI pills will be utilized.

In the highly unlikely scenario of a nuclear event which involved the release of radioiodine, KI pills can be taken to minimize the absorption of radioiodine in the thyroid gland.

KI pills would be made available to people at the reception centres if needed. They are also stockpiled in schools, daycares, nursing and seniors' homes and hospitals.

People who live or work within the 10km zone around OPG's nuclear stations can obtain KI pills at no cost from designated pharmacies in Pickering and Clarington. Please visit durham.ca/demo or phone 905-430-2792 for more details.

KI pills are only to be taken when directed by a public health official. KI pills have an expiry date and should be replaced accordingly.

Where do I go to get more information?

For more information on Emergency Management Ontario, please visit ontario.ca/emo or phone 416-314-3723.

For more information on Durham Region's emergency preparedness, please visit their website at durham.ca/demo or phone 905-430-2792.

For more information on City of Toronto emergency preparedness, please visit toronto.ca/wes/techservices/oem/index.htm or phone 416-392-4554.

For more information on OPG's emergency preparedness, please visit opg.com or phone 905-837-7272 (Pickering Nuclear) or 905-623-7122 (Darlington Nuclear).