

Neighbours

A part of the community since 1965

Fall 2007

International Environmental Award Nomination

Pickering Nuclear's commitment to biodiversity and community partnerships has been recognized with a nomination for the 2007 Corporate Habitat of the Year Award by the international Wildlife Habitat Council.

"We're pleased that our commitment to excellence in wildlife habitat restoration and enhancement has not gone unnoticed," says Manager of Environment Frank Bajurny, "We're proud of what we've accomplished thanks to our great partnerships with employee volunteers and many community organizations."

For the past three years, the focus of the Wildlife Habitat Program has been the creation of a 100-metre wide naturalization area in Alex Robertson Park, adjacent to Hydro Marsh. More than 5,000 trees and shrubs have been planted, a new wetland to increase amphibian habitat has been created, bird nest boxes have been installed and monitored, and efforts have been taken to remove invasive plant species.

Congratulations and thanks to our project partners, City of Pickering, Toronto Region Conservation Authority, and Frenchman's Bay Watershed Rehabilitation Project. Congratulations and thanks also to the many community organizations and volunteers that have contributed to this achievement which will benefit generations to come.

The winner of the 2007 Corporate Habitat of the Year Award will be announced in early November at the Wildlife Habitat Council's symposium in Baltimore.



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Great Egret one of our neighbours

The lands around our nuclear generating station provide habitat for a tremendous number of flora and fauna –something we work to encourage and maintain through our operating practices and stewardship initiatives. Employee Paul James photographed this magnificent Great Egret taking off at Hydro Marsh back in August. This bird is about the same size as a Great Blue Heron but is snow white. There's a wide-variety of bird life in the Hydro Marsh which you can view either from Alex Robertson Park off Sandy Beach Road or from the Waterfront Trail east of Liverpool Road.



ISO 14001 Certification - Pickering Nuclear
Environmental Management System

ONTARIOPOWER
GENERATION

Report on PERFORMANCE



Following high standards for public safety

Ontario Power Generation's ongoing goal is

to maintain and continue building a strong safety culture at each of our nuclear stations to ensure that there are no public safety concerns as a result of our operations.

In the four decades that nuclear energy has served Canada's electricity needs, no member of the public has ever been harmed as a result of a radiation emission from a nuclear power plant or used fuel storage facility. Emissions from our facilities are well below one one-thousandth of the radiation an average Canadian receives every year from sources such as the sun, ground, food sources, and other naturally-occurring radiation in the environment.

For the first quarter of 2007 (most recent data), for people living nearest the station, based on their actual lifestyle characteristics and food consumption patterns, there was a minute 0.5 microsievert potential addition of radiation exposure. This is very little when compared to the Canadian Nuclear Safety Commission regulatory limit of 1,000 microsieverts a year and the 1,770 microsieverts a year the average Canadian receives from natural sources. To offer additional comparison, the dose received from a simple chest x-ray is 70 microsieverts and dose from a dental x-ray is 15 microsieverts.

Protecting the environment

During the first three quarters of 2007, Pickering Nuclear did not record any major or moderate spills to the environment.

Keeping our employees safe

The safe operation of our facilities and the safety of our employees are top priorities for Pickering Nuclear.

To date this year, Pickering B employees have worked more than 3.4 million hours without a lost-time injury. Pickering A employees have worked more than 1.7 million hours without a lost-time accident.

Electricity production

Pickering Nuclear produced less power than was planned during the first three quarters of 2007. Pickering A produced 2.74 terawatt hours (TWh) of electricity compared to 5.73 TWh for the same period last year. Pickering B produced 9.85 TWh compared to 10.57 TWh for the same period last year.

A conservative operating decision was made in early summer to shut down Pickering A Units 1 and 2 for inspections and improvements to a back-up electrical safety system. That work has been successfully completed. This decision was made in keeping with our commitment to always put safety first however it did impact on the production results during that time period.

Electrical production at Pickering B was impacted by a third-party contractor's inadvertent release of resin from the water treatment plant into the demineralised water system, which required unit shut downs for resin recovery. Steps have been taken to prevent any recurrence.

The full Performance Report for Pickering Nuclear can be reviewed at www.opg.com/pdf/07Q2Pickering.pdf.



A message from Tom Mitchell

A commitment to Ontario, present and future, at OPG Nuclear

Ontario Power Generation's nuclear operations have had cause for real celebration and have also met some real challenges in the first three quarters of 2007.

Our employees at Darlington and Pickering B both celebrated significant safety milestones recently reaching three million hours worked without a lost-time accident while Pickering A has achieved a milestone of 1.5 million. This safety achievement is a reflection of OPG's commitment to operating our stations with the highest regard for safety every day.

Darlington Nuclear has had industry-leading production results so far this year with performance in the top quartile industry wide. Darlington's success and its operational practices have attracted attention from our industry peers. We have proudly hosted visitors from nuclear plants worldwide to share these practices. At the same time, we have used these visits to learn from the experience of our counterparts for our own continued improvement.

We did face a challenge this year at our Pickering A station. We brought the two operating units down in the spring to work on a backup safety electrical system. The units were performing well when this decision was made. Although this back-up system has never been called upon, we made a conservative decision to shut down so we could fully inspect and perform work on the backup system to ensure it will perform as expected, should it ever be needed. It is never our preference to take units out of commission during the high-demand summer period. But safe, conservative operation of our facilities is our commitment to the communities we operate in.

With the strong diversity of OPG's generation operations and the performance of our Darlington and Pickering B stations, OPG was able to meet its production commitment this summer while completing this work.

As we continue to operate our plants with a commitment to safety and performance, we are ever watchful of the future needs of Ontario residents and businesses. OPG continues with the Environmental Assessment (EA) and business case study for consideration of potential Pickering B refurbishment and new build reactors at our Darlington site.

Visit our web site www.opg.com to learn more about our current operations and work on-going to study the potential for future generation.

Tom Mitchell
Chief Nuclear Officer,
Ontario Power Generation



Jim Hankinson named Leader of the Year

Ontario Power Generation (OPG) and its employees are proud that our President and CEO has been awarded with the 2007 Leader of the Year Award by the Ontario Energy Association (OEA). This is an honour for Jim and for all of OPG.

The OEA is one of Ontario's most important energy trade organizations, whose members collectively employ about 32,000 Ontarians. Candidates of the "Leader of the Year" award are judged against a demanding set of criteria -- including the

ability to establish a clear corporate vision; achieve success in meeting goals; stay the course; embrace challenge; and earn the respect of stakeholders.

The award was presented to Jim at the OEA's Conference Dinner in Niagara Falls. In his acceptance speech, Jim attributed his success at OPG to its people -- our Board of Directors, our senior management team, and especially all OPG employees, who have worked so hard to make OPG a success.

"Paddles Up" for Pickering dragon boat team

Stephanie Mendes is no stranger to leading her teams on open waters. For the sixth year in a row, the Ontario Power Generation (OPG) Pickering Nuclear employee rallied the spirits of her co-workers to take part in the annual Pickering Dragon Boat challenge held on Frenchman's Bay in early June.

Stephanie got her paddle wet when she joined the Pickering Nuclear dragon boat team as a co-op student in 1998. When she returned as a full-time employee in 2002, Stephanie stepped up to organize and lead the team at the OPG-sponsored event which boasts more than 5,000 participants each year.



Front row: Heather Au, Tammy Yoo, Stephanie Mendes, Stephanie Leung, Ruby Luthra, and Cammie Cheng

Back row: Jacky Chan, YC Chan, Ed Ounjian, Patrick Chan, Marlon Heenasingh, Lok-kei Lau, Bianca Kampf, Tim Collier, and Jane Liu

The OPG team competes in the recreation division with one or two teams of about 22 paddlers. Race day consists of teams paddling in three races that are 500 metres long. Each race determines your ranking and place. Although this year's dragon boat team didn't capture the OPG Cup, they still considered it a success.

"Taking part in the dragon boat race is a team building exercise for us," said Stephanie. "It's an opportunity outside of our workplace to engage, socialize, and have a good time with colleagues and other community teams."

Stephanie is an Assistant Technical Engineer in the Performance Engineering department at Pickering Nuclear. She is responsible for monitoring and analyzing performance and system data for Shutdown System 2—one of Pickering's special safety systems.

Pickering Nuclear is proud to support the Pickering Dragon Boat Challenge and we're proud of Stephanie and her fellow employees for their participation.



Safe and Secure at OPG's Nuclear Facilities

Security Enhancements at Pickering Nuclear

As part of the ongoing enhancements to security, Ontario Power Generation (OPG) has begun work on a new barrier system around the protected area of Pickering Nuclear. While unlikely to be visible by community members, the enhanced fencing is aimed at deterring and thwarting any plans of unwanted intrusion, which is one of our regulator's requirements in its Nuclear Security Regulations.

The first phase in 2007 will involve the installation of razor mesh wire and razor wire pyramid bundles, which will follow

the existing taut wire fence around the protected area. Enhanced lighting, detection equipment and additional cameras are scheduled for installation in 2008. These changes will complement the existing on-site armed response team who are also dedicated to the safety and security of the plant.

"The razor wire portion of the fence will be physically isolated and inaccessible to staff and the public, thus eliminating any risk to personal safety," says Bob Hagymasy, OPG Vice-President of Nuclear Security.

Work on this enhanced physical barrier has also started at Darlington Nuclear. New signage has also been added around both the Pickering and Darlington sites which ensure that everyone understands the presence of a 24/7 armed response force on both sites to ensure the safety of the plants.

Increased security measures are for the protection of our staff, the community, and the integrity of the station.

Families enjoyed Tuesdays on the trail

Hundreds of local families enjoyed the entertaining and educational programs offered by Pickering Nuclear along our portion of the Waterfront Trail every week this summer.

Tuesdays on the Trail was made possible through partnerships with Frenchman's Bay Rehabilitation Project, PineRidge Arts Council (Amber Bond and Dorsey James), Act One School of Drama, and Scientists in School (Cindy Adams).

We're already busily planning next year's programs. So for free family fun and environmental education next July and August, circle Tuesdays on your calendar.



OPG Executive Named to University and College Board post



Ontario Power Generation (OPG) has made a commitment to education and training as a key part of its operations to ensure a future generation of engineers, nuclear operators and other highly-skilled people are prepared to take over from today's OPG workforce.

As part of that commitment, OPG works closely with the University of Ontario Institute of Technology (UOIT) and Durham College.

OPG is pleased to announce the appointment of Bill Robinson to the UOIT and Durham College Board of Governors. As OPG's Senior Vice President of Nuclear Programs and Training, Bill's appointment

is a nice fit to help develop the requirements Durham needs to become the energy capital of Ontario, and to ensure the continuum of OPG's workforce to ensure the security of Ontario's electricity system.

Bill's appointment coincides with the departure of Board Chair Pat McNeil. Pat is a Senior Vice President at OPG responsible for nuclear development. Serving on both the Durham College and UOIT boards from 2003 to August 2007, Pat was concurrent Chair of both boards for the 2006/2007 school year.

"It has been a distinct pleasure working with Pat McNeil since my arrival at UOIT in July 2006," says UOIT President Dr. Ron Bordessa.

"Pat's personal commitment to and leadership of the Board of Governors has been appreciated and is immeasurable as we chart the course for our future. We will certainly miss him but know that Bill Robinson, as a new governor, will represent OPG well. Bill's dedication to education and training make him a good fit as we look at new strategic opportunities for our institution particularly as they apply to the nuclear industry.

You asked us

Why is it that the Pickering Wind Turbine isn't operating at times when the wind seems suitable?

That's a question that we get asked quite a lot. It could be that the wind turbine is shut down for maintenance or repairs. Also, the wind turbine will not spin if there is too much wind. If wind speed is too great, the turbine will automatically shut down since the bearings on the shaft could be damaged. They are only designed to withstand a specific amount of torque which would be exceeded at higher wind speeds.

What are KI pills and why are they available at schools?

Local schools, daycares, nursing and seniors' homes, hospitals, and prisons have stocks of potassium iodide (KI) pills. In the extremely unlikely event of a nuclear emergency requiring public action, KI pills may be taken to minimize the absorption of radioactive iodine by the thyroid gland. The Province of Ontario is accountable for determining when and how KI pills should be ingested.

If you would like more information on KI pills, there is a fact sheet available from Durham Emergency Management Office at www.region.durham.on.ca or by e-mail at demo@region.durham.on.ca or by calling 905-430-2792.

How do I apply for a job at OPG?

All expressions of interest in joining our team at Ontario Power Generation can be made by visiting www.mypowercareer.com. This handy site allows you to find out more about the types of careers available, current opportunities, and complete your personal profile and areas of interest. Once you've done that, you will receive e-mail notifications as vacancies of potential interest to you become available.

Neighbours



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Potential Pickering B Refurbishment and Continued Operation



A lot of work has taken place since June 2006, when the Minister of Energy directed Ontario Power Generation (OPG) to begin assessing the feasibility of refurbishing the Pickering B reactors for life extension.

As part of the business case assessment, OPG has been conducting a number of studies, including an Integrated Safety Review, Plant Condition Assessments and a federal Environmental Assessment (EA). A recommendation is scheduled to go to OPG's Board of Directors in 2008. The Board, in turn, is charged with the responsibility of deciding the feasibility of refurbishing Pickering B for life extension.

Integrated Safety Review (ISR)

An ISR assesses the station to determine how it conforms to modern high-level safety goals and requirements. OPG has undertaken extensive safety studies as part of the ISR. Through this process and in discussion with the Canadian Nuclear Safety Commission (CNSC), modifications to plant equipment and programs will be identified and evaluated for inclusion in the potential Project where practicable.

Plant Condition Assessments

Detailed engineering studies have also been conducted to assess not only the current condition of the plant, but also how the plant will age, and what upgrades of the plant may be needed. This in turn, helps identify the scope and cost of refurbishment.

Environmental Assessment (EA)

More than a year after we started extensive environmental studies, OPG submitted a Draft Environmental Assessment Study Report (EASR) to the CNSC this summer. The EA studied aspects of the environment including air, water, radiation and human health, among others, to determine if the refurbishment and continued operation of Pickering B would have any significant, adverse environmental effects. At this time no significant environmental effects are anticipated from the potential project.

Specific areas of interest from the community and local stakeholders have been identified and include seismicity (or earthquakes) and malfunctions and accidents (for more information see the next page). For detailed information, the Draft Environmental Assessment Study Report is posted on the Project website at www.opg.com/pickeringb.



Children and their parents take a walk on the Waterfront trail, a flourishing plant and animal habitat located on the Pickering nuclear site while participating in Tuesday's on the Trail, an annual free summer program hosted by OPG.

EA Updates

In addition to replacing steam generators, fuel channels and feeders, if refurbishment were to proceed additional capacity for temporary storage of heavy water may be required during the refurbishment of each unit. If so, it would involve an additional storage structure at the Pickering site, which would meet all regulatory requirements.

OPG may also upgrade the low pressure turbine to improve efficiency by up to 25 MW of electrical output. This would provide more electrical power for the same quantity of fuel and with less heat output to lake.

Seismicity

The Pickering B station was seismically qualified as part of its original design to be able to safely withstand an earthquake. The design was based on the best engineering standards of construction which can be expressed as approximately an earthquake of magnitude six. By comparison, there have been no events larger than a magnitude 4.2 within 100 km of the Pickering site since earthquakes started being recorded in the area.

Some people have asked about a fault in the Rouge Valley. A leading Canadian seismic hazards expert has assessed the seismic hazard and fault activity near the Pickering station for

the EA and has concluded that there are no earthquake faults in the Rouge River Valley. Rather, the deformities are a result of glaciers.

Malfunctions and Accidents

The EA Guidelines for the project require OPG to provide information on the effects of different types of accidents, including conventional, radiological and nuclear malfunctions and accidents. OPG has described those that are reasonably probable (i.e. with a probability of 1 in 1 million or greater per year), the nature of the events and the potential effects on the surrounding environment and members of the public. In addition, OPG is also assessing the effects of an evacuation scenario.

No significant adverse effects on the surrounding communities are predicted from credible malfunctions and accidents, given current emergency preparedness plans and procedures.

Next Steps

After OPG submits the final Environmental Assessment Study Report (EASR), the CNSC will release a Draft Screening Report, which will be available for public review and comment. Commission hearings on the Screening Report will then be held, the results of which will form the decision on the EA.

Public Consultation

Throughout of the EA, OPG has had an active presence in the community and with local stakeholders. Activities have included:

- One thousand visitors to information displays in local malls and community events;
- Fifty Stakeholder Briefings/Interviews (elected officials, community committees, Non-governmental Organization's, businesses, etc.);
- Thirteen Open Houses; and
- Two Stakeholder Workshops.

OPG also notified the community and local stakeholders through notification letters, study update letters, extensive print advertising and direct mail pieces, among others.

For more information on the Pickering B Refurbishment and Continued Operation Project, visit www.opg.com/pickeringb or call toll-free at 1-866-487-4600.



Approximately 130 local community members and key stakeholders came out to the third round of five Open Houses held on the Project in May 2007. Shown here, Director of Nuclear Public Affairs, Jacquie McInnes, explains the workings of a fuel bundle to a community member.

How to Reach Us

Public input on this EA is important and welcome. You are encouraged to learn more about this EA and to offer your input. There are many ways you can reach the EA team.

By mail: Pickering B Refurbishment
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