

Neighbours

A part of the community since 1965 • Volume 8 • Number 2 • Summer 2004

The healing power of nuclear



Nuclear medicine technician Brian Pavlich oversees CT Scan tests on patient Ken Raniage at Rouge Valley Ajax and Pickering hospital recently. Nuclear technologies are put to many uses for the benefit of mankind.

When most people think nuclear they think energy.

But there are many other uses for nuclear technology and products that help save lives and improve our quality of life.

At Rouge Valley Ajax and Pickering hospital, the Ontario Power Generation Nuclear Medicine Clinic provides diagnostic treatment. The clinic, opened in 2000 with a \$1-million donation from OPG, uses a CT Scan in combination with radioactive isotopes, injected into patients, to provide doctors a picture to pinpoint the location and stage of the disease in the body, making effective treatment easier.

“Nuclear medicine went a long way to help me be where I am today,” says Rouge Valley patient Ken Raniage, coincidentally a former Pickering Nuclear worker. “Without it, I wouldn’t be here talking to you,” he says noting the diagnostics were key to the success of his treatment.

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Meanwhile, over at Pickering Nuclear, employees extract Cobalt-60 from the CANDU reactors for use in sterilization processes that ensure sanitary healthcare, food and consumer products. Cobalt-60 is produced when Cobalt 59, a naturally-occurring element, becomes charged during the CANDU energy generation process.

This year, as part of planned maintenance outage on one of the reactors, staff at Pickering Nuclear harvested a number of Cobalt 60 rods which provide the raw materials for use in sterilization of products like syringes, medical supplies, bone joint implants and even cosmetics. In some countries Cobalt 60 is used as part of a food irradiation process to enhance the safety of perishable food, killing harmful bacteria without altering the nutritional value of the food.

“This is very much a Canadian innovation,” says Alfred Mo, OPG Product Manager, noting about 80 per cent of the Cobalt 60 used in these processes around the world is harvested from Ontario nuclear reactors.

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Geared up for Summer

Summer is here and at Darlington Nuclear we take special pride this year in knowing our hard work and performance in 2004 is going to help

ensure residents can enjoy the season without concern about electricity supply.

This has been an especially productive year at Darlington. Our employees worked very hard during a 67.5 day scheduled maintenance outage to give our Unit 1 reactor a major tune-up.

Regular maintenance on a nuclear station, just like on a house or a car, ensures good performance, not only in the short-term but also in the long-term. OPG is committed to ensuring the investment made in Darlington is protected through proactive and on-going operations like the Unit 1 outage.

Currently all four of Darlington Nuclear's reactors are running at 100 per cent capacity, ready to meet our commitment to the Province's electricity grid. This is especially important because Darlington Nuclear accounts for more than 15 per cent of the electricity generated in this province.

While we take our commitment to provide energy to the people of this province very seriously, we are equally aware of our responsibility to the community where we are privileged to operate. We are ever-vigilant about our environmental practices and the safety in which we operate our plant. We strive to be good corporate citizens in our community through outreach programs and partnerships with local organizations.

This summer, each Tuesday from July 6 to August 24 at 10 a.m. and 1 p.m. we are inviting the public to join us for Tuesdays on the Trail, an activity-based two-hour program provided free of charge. Many of our community partners, including Friends of Second Marsh, the Ganaraska Region Conservation Authority and the Darlington Provincial Park will create fun, all-age programs.

If you can't join us on the site, look for us in the community where we will be partnering on activities like the Driftwood Theatre performances, Clarington Family Safety Day, the Terry Fox Run and the Durham Children's Groundwater Festival.

Anyone interested in more information on our programs or a Waterfront Trail map to help explore the natural habitat here at Darlington can call 1-800-461-0034 or email darlingtonnuclear@opg.com

Gregory O.D. Smith
Senior Vice President
Darlington Nuclear

continued from cover

Tritium is another by-product of the CANDU nuclear process used to the benefit of society. Tritium is recovered from Ontario's CANDU operations at Darlington Nuclear's tritium removal facility. Small amounts of tritium, another form of hydrogen, are added to diagnostic pharmaceuticals as medical tracer to allow researchers to follow their movement through a human body. Tritium is also used as a light source and provides essential lighting particularly for areas where electrical sparks can be dangerous and where minimal or no electrical wiring exists, such as exit signs and airport runways.

Nuclear products like Cobalt 60 and tritium are providing a significant contribution to our society, notes Alfred. "It's a whole new way to look at the power of nuclear."

Report cards issued for first quarter 2004

Darlington Nuclear takes its safety, environmental and performance responsibilities very seriously.

A report card is issued each quarter comparing Darlington Nuclear's performance with nuclear industry standards to see how the plant compares with its counterparts worldwide and where improvements can be made.

In the first quarter, our environmental performance met Darlington's target goal of zero spills into the environment during the January to March period. A spill is defined by a broad spectrum of possibilities including chemical or other substances reportable to the Ministry of the Environment.

As always, the radiation dose to the public was exceptionally low. Someone living just outside the Darlington station would have accumulated 0.4 microsieverts of radiation as a result of operations at Darlington. Though microsieverts is a measurement unfamiliar to many people, in attempting to quantify the amount, it is helpful to consider that the average Canadian receives about 1,770 microsieverts a year from natural sources such as cosmic rays and radon in the soil. A dental xray gives off about 100 microsieverts.

Darlington's industrial safety accident rate bettered our target for the quarter. The Darlington Industrial Safety Accident Rate was .19 accidents for every 200,000 hours worked.

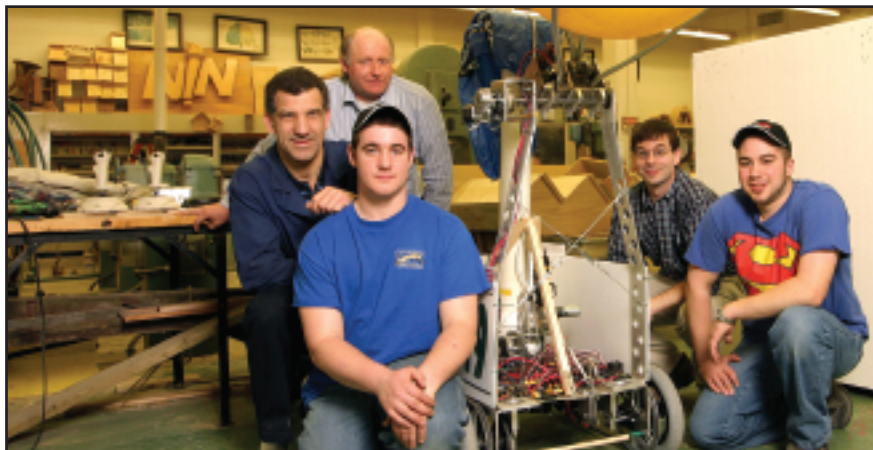
Darlington did experience two events that, although they did not pose any danger to the public, could have potentially reduced the margin of safety in the plant. One was penetration of steam into a room where steam is not desired. The other was an empty back-up instrument air supply bottle for a valve.

While electricity production at Darlington was very strong in the first quarter, a repair to the fuel handling system on one unit brought electricity production below the plant's target. As a result, Darlington's capability average across the four units was 81.83 per cent, about 10 per cent below the goal of 91.46 per cent capability. However, Units 3 and 4 both operated at an average of 99.5 per cent capability.

To receive a copy of the report card, visit our Information Centre or our website www.opg.com or have it faxed to you by calling our Fax on Demand number, 1-800-238-7718 and asking for story code — 10000.

Sharing the Knowledge

Mentors bring technology to the next generation



OPG mentor Eric Jelinski (far back) is one of the Darlington Nuclear employees who helped the Courtice Secondary School robotics team prepare for competition at the Hershey Centre in Mississauga.

For Eric Jelinski, working at the Darlington Generating Station isn't just a job, it's part of a larger passion for electricity and mechanics.

Whether it's building electric cars or electrical systems, Eric loves to tinker and create. The former Durham College electric vehicle instructor also loves to share that passion with like-minded individuals.

So, it is a natural fit for Eric to take his skills into the classroom at Courtice Secondary School where he and other OPG employees mentor students taking part in the FIRST (For Inspiration and Recognition of Science and Technology) Robotic Competition. Students from high schools across Ontario and beyond compete once a year in a game geared to challenge engineering prowess by having schools build robots that can accomplish specific tasks within a set time period. Mentors from both Pickering Nuclear and Darlington Nuclear share their knowledge with students in Durham Region and in some cases, join in the excitement on competition day.

The students have really become engaged in the program, Eric says. "It's extremely exciting for them. There is a high level of interest. They'll work until six, until suppertime, and so do the teachers. Over the years there has been an increasing level of ownership."

At Pickering Nuclear, another team of volunteers mentor students at Ajax High School, Sinclair Secondary in Whitby and J. Clarke Richardson in Ajax.

Tom Smart, who leads the Pickering volunteer program says the hands-on nature of the project combined with the expertise of the mentors gives the students a chance to "get involved in science in a really hands-on way. It demonstrates to them 'I can do that'. It lets them understand technology is something they can consider as a career.

"It shows these high school students they have the capability to design, build and operate complex devices. It takes the mystery out of technology. There's a real wow, factor." Tom credits the mentors with using their time and energy to make the program the success it is. "It's through their brainpower and inspiration this comes to life."

This fall OPG will introduce a similar program into an elementary school for the first time at Lincoln Avenue Public School in Ajax.

"In the long-term we're a technical company and it will be to our benefit. It will bring more eager, smart young people into technology," Tom says.

Darlington Community Briefs

Darlington employee leads Board of Trade

Darlington Nuclear Public Affairs Manager Don Terry was recently appointed President of the Clarington Board of Trade.

Ontario Power Generation employees have a rich history of leadership as volunteers in their communities. "I find a fellow employee at almost every community event I attend," says Don. "Bettering our communities seems to be a shared value and that's a source of pride for me."

Don takes over the role of president from out-going president Ron Hooper of Hooper's Jewellers.

"The Clarington Board of Trade has been operational for about six years and continues to grow and contribute as the "Voice of Business" in Clarington," says Don. "If you're in business here and you're not a member, we need to talk."

Anyone interested in more information on the Clarington Board of Trade can visit its Web site at www.claringtonboardof-trade.com.

The County Bicycle Shop

This summer take a nostalgic look at bicycles and tricycles dating back as far as 1869.

The Oshawa Community Museum and Archives presents the County Bicycle Shop, a collection of early bicycles featuring 19 bicycles and six tricycles as well as related accessories dating back to when the bicycle first appeared in Canada. This exhibit highlights the technological features of each bike with special focus on those features that contributed to today's technologies.

The exhibit is sponsored by Ontario Power Generation and Metroland Durham Media Group. The museum is located at 1450 Simcoe St. S., Oshawa in Lakeview Park. For more information call 905-436-7624.

Woman of Distinction

YWCA recognizes Donna McFarlane for leadership and community contributions



It may have been a surprise to the recipient but it came as no surprise to the many people who know Donna McFarlane when she was honoured as a member of the Durham YWCA's Women of Distinction for her contribution to her community and her inspiration as a role model to other women.

Donna, OPG's Site Director for Public Affairs and a Whitby resident, joined other female leaders in the Durham community in an elite sorority of outstanding

women who have distinguished themselves for their contribution to their community, their achievements and their leadership.

With colleagues from OPG, the community, friends and family at her side, Donna accepted her award, May 13 during a gala dinner at the Holiday Inn, Oshawa. The award, she said, is an incredible honour. "To think about the company of women you are in, it's pretty remarkable. It was an amazingly positive and energizing experience. It doesn't happen very often when you can celebrate all the parts of your life as a whole. The most significant part of it is the coming together of all the different parts of my life and how they all fit together."

Donna's history of serving in her community goes back many years as does her service at OPG. Her accomplishments and contributions are many including her current role as a board member for the Oshawa-Whitby-Clarington United Way, a member of Sunrise Rotary Club, Whitby, and a former president of Canadian Parents for French where she helped lead the establishment of French Immersion in the Durham District Board of Education. As well, Donna was a founding board member of the Canadian Association for Student Robotics. She currently chairs an international nuclear communicator's group in Paris.

But perhaps what distinguishes Donna most in the mind and hearts of her colleagues is her desire to help others achieve their own goals. "She sets such a good example of what a woman can do when she puts her mind to it. She's got a lot of fans at a lot of locations," says Vanessa Hughes, a communications specialist at Darlington Nuclear.

After 25 years of service, Donna is retiring from Ontario Power Generation, effective July 1, to take on a new role with one of the company's close community partners, the University of Ontario Institute of Technology and Durham College. She will be greatly missed by her colleagues but her inspiration will remain with us.

GUEST COLUMN

Clarington Mayor John Mutton

Clarington ready to power the Ontario economy



For Ontario Power Generation, Darlington Nuclear is a tremendous asset to which the company can point with pride as a leader in its fleet of operations.

For the Province it is a workhorse in creating the energy Ontario requires to fuel the

economy and ensure residents have the power they need, when they need it.

But for Clarington, Darlington Nuclear is even more. It is a good neighbour and a key corporate stakeholder, a leader in our business community that has brought well-paid, knowledge-based jobs to this municipality and helped drive our economy.

Myself and the business community, through the Clarington Board of Trade, have made a commitment to build on the solid base Darlington provides to create an atmosphere that will encourage more energy sector business to locate here and bring with it more of those highly-valued jobs to our community. Currently plans are underway to create a business community that will lead the way in the energy sector, ideally with more nuclear generation adjacent to Darlington, as well as new ideas for conservation and alternative energy sources to help offset the ever-growing demand for traditional electricity production in this province.

It is our desire to make Clarington an energy centre of excellence that all of Canada will turn to for leadership in this field. With that we will build a future for generations to come in Clarington and a healthier environment for Ontario's children through energy innovation.

I invite everyone to join us in this vision and welcome your comments or ideas. Please email me at mayor@municipality.clarington.on.ca or send your thoughts to Mayor John Mutton, 40 Temperance St., Bowmanville, ON. L1C 3A6.

'Small town' training

Emergency personnel get real-life experience in doll-size community

Imagine a town where emergency personnel are constantly put to the test responding to severe weather incidents, fires and even large-scale catastrophes.

That's the scenario trainers at Ontario Power Generation have created in a scale-model town, that has drawn high praise from international safety experts. After more than two years of planning and construction, Ontario Power Generation is using this new tool for use in its fire and rescue training program.

It's a mini-town that has been built on a 2,600-square-foot table top at OPG's Wesleyville training facility. The town is representative of most communities with industrial facilities, commercial buildings, detached and row homes, apartment buildings, churches, schools, an airport, railways, freeways, and more — 116 miniature buildings in all. As well, there are three nuclear plants — one a miniature replica of the Darlington station, and the other two mini-Pickering A and B units.

This mini-town has provided a new dimension in training for incident command and control. Using special effects (smoke, lighting, sound), an emergency situation, such as a fire, can be simulated. Small cameras are positioned at the emergency, and the pictures are seen on a monitor. An incident commander can then make decisions on how best to handle the situation. Special effects allow the situation to change quickly, providing an even more life-like experience.

This new training tool drew high praise from a 12-member international nuclear review team that visited the Wesleyville facility earlier this year. "The organization of training for fire and rescue incident command and control is above current standards in the industry," the team said in a report.



Don Trylinski, Training Technician at the Wesleyville Fire and Rescue Training Facility looks over the scale model of the town where OPG emergency personnel prepare for real-life emergencies.

Incident command and control is vital to the successful resolution of any kind of emergency — fire, rescue, nuclear, severe weather, hazardous materials, spills and others. The training helps the commanders develop problem-solving skills and learn how to adapt and overcome problems.

OPG is sharing its training with both the Clarington and Pickering fire services. In addition to incident command training, the municipal forces also benefit from live fire practice at the Wesleyville facility, working shoulder-to-shoulder with OPG Emergency Response Team members so that each group becomes familiar with the other's protocol.

OPG believes this type of training will develop a stronger link in the working relationship between the municipal and company emergency personnel and create an even safer environment in the real towns where our company operates.

Darlington Fire and Emergency Services gets kudos from international experts

Recently two international fire protection experts, Mr. T. Magnusson and Mr. A. Tannus visited OPG from the Ringhals nuclear plant in Sweden. The men have visited many plants around the world, sharing their extensive experience in fire protection of nuclear installations. The men said they have not seen a plant that has made such significant strides in fire protection as Darlington Nuclear. They were particularly interested in the innovations made to fire systems around the turbine-generator and other parts of the plant. Mr. Magnusson and Mr. Tannus were also impressed with Darlington Nuclear's own full-time emergency response organization and the high level of support it receives from the local fire departments.

Darlington Nuclear has an integrated response, system that includes our own extensive fire services department working and training in tandem with municipal fire services from Clarington and beyond. Darlington's fire protection plan includes many different components including the most up-to-date fire prevention and detection equipment and practices, fire barriers, fire suppression methods, fire response and on-going fire safety assessment, training and operating experience. All of these components work in tandem to provide our communities a service recognized for excellence worldwide.

Tuesdays on the trail

At your
Darlington
Waterfront Trail



Tuesday, July 13: **Drawn by Nature**

Bring your sketch pad, pencil, lawn chair and improve your drawing techniques with Les Parkes of the Clarington Visual Arts Centre.

Tuesday, July 20: **Rockin' Reptiles and Awesome Amphibians**

Hunt for reptiles and amphibians, learn amazing facts and make a craft with experts from Ganaraska Region Conservation Authority.

Tuesday, July 27: **Drawn by Nature**

Bring your sketch pad, pencil, lawn chair and improve your drawing techniques with Les Parkes of the Clarington Visual Arts Centre.

Tuesday, August 3: **Eco Games**

Learn about wildlife while playing some exciting nature games with experts from Ganaraska Region Conservation Authority. Then make a craft.

Tuesday, August 10: **Tweet, Chirp, Quack**

Bring your eyes and binoculars (if you have them) on this birding expedition with experts from Darlington Provincial Park. Then make a craft.

Tuesday, August 17: **Pioneer Toys**

Come play in the past with Clarington Museums and Archives. Make corn husk dolls and block prints in the toy-making tradition of our early pioneers.

Tuesday, August 24: **The Good, the Bad & the Bugly**

Investigate the small world of insects and play a game of survival with experts from Darlington Provincial Park. Then make a gift.

Looking for something fun to do with your family this summer? Eight Tuesdays in July and August at 10:00 a.m. or 1:00 p.m., join us on the Darlington Waterfront Trail (Park Road entrance). All activities are about two hours long, free and can be enjoyed by all ages.

Darlington Nuclear Information Centre:
1-800-461-0034



Emergency brochures in homes now

In June, Nuclear Emergency Information Brochures were mailed to Durham Region residents who currently reside near the Pickering and Darlington Nuclear Generating Stations.

The mail-out is a redistribution of a 1999 information pamphlet. This brochure will ensure every home and business located within 10 km of either Durham Nuclear station has evacuation information and will be informed on what to do in the unlikely event of a nuclear emergency.

However, the map in the brochure, originally created in 1999, does not reflect all changes made to the region's roads since that time. One change west Durham residents should note is the opening of the Salem Road / 401 interchange, replacing the Harwood Avenue / 401 interchange, which has since been closed.

In 2005, Emergency Management Ontario will be distributing new, updated information to capture all changes made in the past five years. In the meantime, the current brochure tells residents exactly what to do in the unlikely event of a nuclear emergency. Anyone who would like to receive a copy of the current brochure or further information can call the Region of Durham Emergency Management Office at 905-430-2792 for a free copy or visit the Region's Web site at: www.region.durham.on.ca/demo.

Neighbours

Darlington Neighbours is published quarterly for the neighbours of Ontario Power Generation at Darlington Nuclear.

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