

# Performance Report for Darlington Nuclear

## SECOND QUARTER OF 2009

This report discusses performance for Darlington Nuclear in the areas of safety performance, electricity production, environmental performance, and significant accomplishments achieved during the second quarter of 2009.



### OPG continues to maintain high standard of Public Safety

OPG'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 or employee 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 waste storage facility. An excellent measure demonstrating that the public is protected at all times from radiation emissions, is provided by the continuous measurement of radiation exposure at the perimeter of our stations. All Canadians are exposed to naturally-occurring radiation, mostly from the sun and from radon which is found in soil. The average exposure of Canadians is 1,770 microsieverts a year.

For Darlington Nuclear, the estimated additional exposure during the first quarter of 2009 for people living nearest the station, based on their actual lifestyle characteristics and food consumption patterns, was 0.2 microsieverts. This is a very small percentage of the amount we each receive naturally and much lower than permitted by regulation.

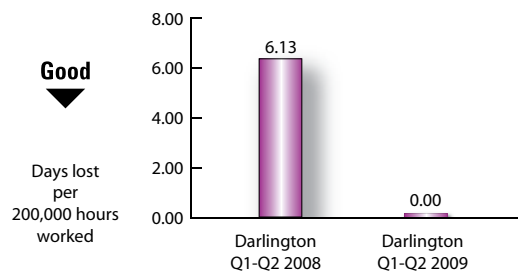
### Keeping Our Employees Safe

OPG's first priority is the health and safety of employees and the public. In 2009, OPG received a ZeroQuest Gold Award from the Electrical and Utility Safety Association. The award



recognizes OPG's effort to continuously improve our safety performance, health and safety management systems and safety culture. OPG was first recognized with the Gold Award in 2005, this latest award recognizes OPG's maintenance of this high level of performance for four consecutive years.

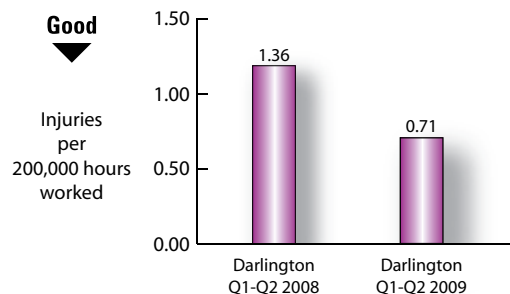
### Employee Accident Severity Rate



Darlington's employee safety performance is measured against other companies. One measure is the employee Accident Severity Rate (ASR) which measures the number of days lost due to injuries per 200,000 hours worked. Darlington recorded 0.00 days lost per 200,000 hours worked in the second quarter of 2009. This is excellent performance and better than Canadian Electricity Association top quartile performance.

### Employee All Injury Rate

Another key safety measure is the All Injury Rate (AIR) which measures the number of workplace injuries per 200,000 hours worked. During the second quarter, Darlington recorded 0.71 injuries per 200,000 hours. This is good performance and better than Canadian Electricity Association top quartile performance



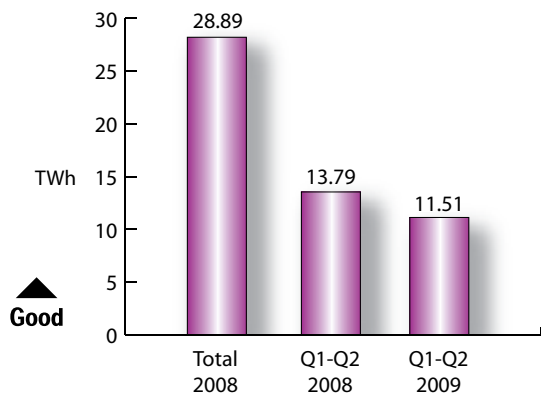
## Safety Milestones

The safety of our employees, like the safe operation of our nuclear reactors is a top priority.

During the second quarter of 2009, Darlington Tritium Removal Facility employees achieved 10 years without a lost time injury.

## Electricity Production

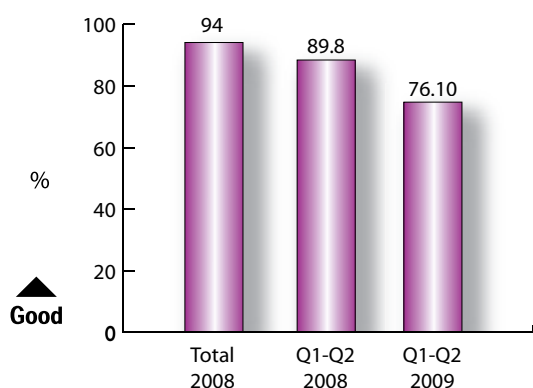
### Darlington Electricity Production (TWh)



In April, all four of Darlington’s units were shut down to allow for the planned inspection and maintenance of the station’s vacuum building structure. The Darlington Vacuum Building Outage was a complex and demanding project executed and completed in a timely manner. The Darlington units continued to perform well leading up to, and following, the Vacuum Building Outage.

## Unit Capability Factor

### Unit Capability Factor (%)



Another measure of the station’s performance is its unit capability factor, basically a percentage of perfect generation a unit is capable of producing during a specified period.

Darlington reported a lower unit capability factor of 76.10 compared to the same period last year which is reflective of the 40-day Vacuum Building Planned Outage.

## Protecting the Environment

During the second quarter of 2009, Darlington Nuclear did not record any major or moderate spills to the environment.

## Milestones & Items of Interest

Some of the milestones and items of interest achieved by Darlington Nuclear and across OPG include the following:

- The Canadian Nuclear Safety Commission released its annual assessment in which “CNSC staff concluded that nuclear power plants in Canada operated safely during 2008.”
- In June, Deputy Premier and Minister of Energy and Infrastructure George Smitherman announced the suspension of the Infrastructure Ontario competitive Request for Proposal (RFP) process. The RFP was the method selected last year to procure two new nuclear reactors at the current Darlington Nuclear site. OPG continues the environmental assessment and licensing activities toward the successful preparation for two new units at the Darlington site.
- In support of biodiversity in the community, Darlington Nuclear hosted its annual Scouts Canada tree planting event in May. OPG staff, Scouts, and community volunteers helped plant 250 large Silver Maple trees on the Darlington site.



**Darlington Outage staff on top of the Vacuum Building: to prepare for the outage, hoisting and rigging equipment were brought in, and a temporary elevator was erected to allow crews to access the roof.**

Do you have any questions about our performance results? If so, please give us a call at 905-623-7122.