

Performance Report for Darlington Nuclear

FIRST QUARTER OF 2010

This report discusses performance for Darlington Nuclear in the areas of safety performance, electricity production, environmental performance, and significant accomplishments achieved during the first quarter of 2010.



OPG continues to maintain a 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 2009 for people living nearest the station, based on their actual lifestyle characteristics and food consumption patterns, was 0.7 microsieverts. This is a very small percentage of the amount we each receive naturally and much lower than the 1,000 microsieverts permitted by the Canadian Nuclear Safety Commission regulation.

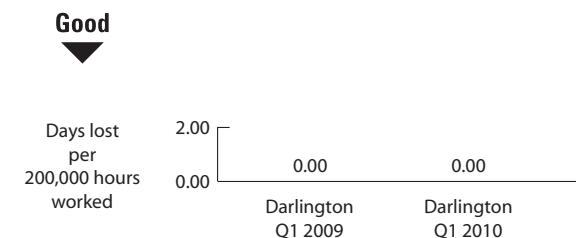
Keeping Our Employees Safe

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 2009 award recognizes OPG's maintenance of this high level of performance for four consecutive years.

At OPG's nuclear operations, we are on a continuous journey toward excellence in our safety performance. We strive for zero injuries and to create a work environment where more than 2,500 employees at Darlington Nuclear take personal responsibility to consistently build safety into every task they perform.

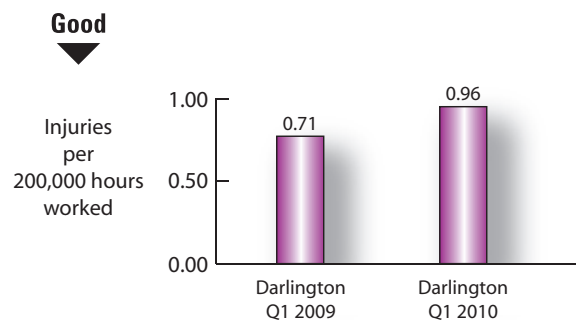
Employee Accident Severity Rate

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. During the first quarter, Darlington recorded 0.00 days lost per 200,000 hours worked. This is excellent performance and better than Canadian Electricity Association (CEA) 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 first quarter, Darlington recorded 0.96 injuries per 200,000 hours work. This is good performance and slightly lower than CEA top quartile performance.



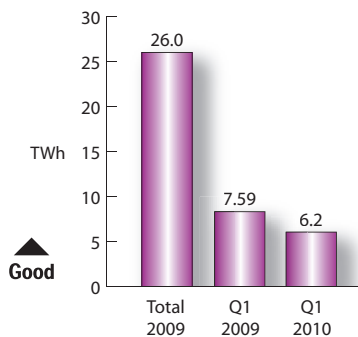
Safety Milestones

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

During the first quarter of 2010, Darlington employees surpassed 6 million hours without a lost-time injury, since May 2008.

Electricity Production

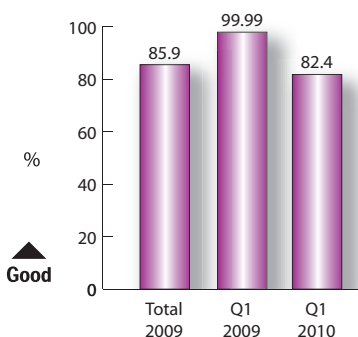
Darlington Electricity Production (TWh)



During the first quarter, Darlington generated 6.2 TWh of electricity. Overall generation was lower than the same period in 2009 due to a planned and unplanned maintenance outage on Unit 4 and Unit 1 respectively.

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 saw a decrease in its unit capability factor to 82.4 per cent compared to 99.99 per cent for the same period last year due to a maintenance outage on Unit 4.

During the first quarter, Darlington Units 1 and 2 achieved top quartile performance compared to other CANDU units worldwide.

Protecting the Environment

During the first quarter of 2010, 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:

- OPG announced a two-part investment strategy for its current nuclear generating stations in Durham Region: 1) OPG will proceed with a detailed planning phase for the mid-life refurbishment of the Darlington Nuclear station, with construction expected to start in about 2016. 2) OPG will also invest an additional \$300 million in the continued safe and reliable performance of the Pickering B station for approximately 10 years. Following this OPG will begin a safe storage project followed by the longer term decommissioning process for the Pickering station.
- The federally-appointed Joint Review Panel for the "Darlington New Nuclear Project" continued the technical and public review of OPG's "Environmental Impact Statement" and the Application for "Licence to Prepare Site" for new nuclear at Darlington. For more information or to submit comments visit www.darlington.review@ceaa-acce.gc.ca
- Darlington Nuclear and Pickering Nuclear hosted thousands of local residents at our March Break activities with a focus on environmental, science and recreational activities.



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