

2009 Performance Report

PICKERING NUCLEAR

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



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 safety 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 monitoring of radiation exposure at the perimeter of our stations. Most people are not aware that 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 Pickering Nuclear, the estimated additional exposure during the third quarter of 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.

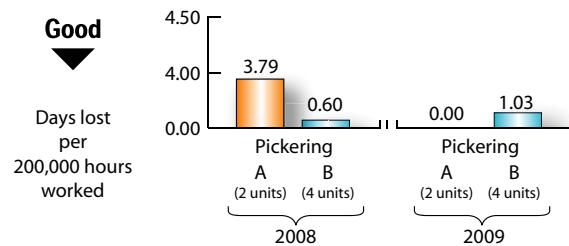
Keeping Our Employees Safe

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 latest 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. Its defining features include striving for zero injuries and creating a work environment where more than 3,000 employees at Pickering Nuclear take personal responsibility to consistently build safety into every task they perform.

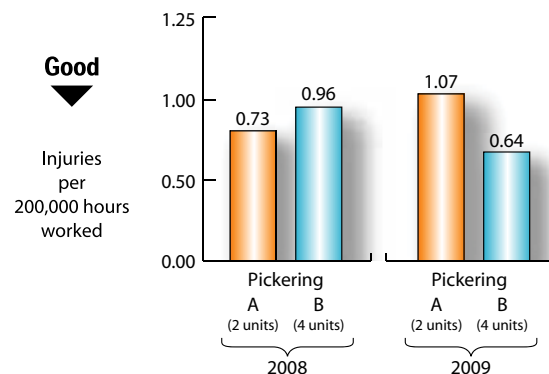
Employee Accident Severity Rate

Pickering'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. In 2009, Pickering A recorded 0.00 days lost per 200,000 hours worked. This is excellent performance and better than Canadian Electricity Association (CEA) top quartile performance. Pickering B reported very good performance with a 1.03 ASR per 200,000 hours worked and better than 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. Pickering A recorded an AIR of 1.07 which is slightly below the top quartile industry performance category set by the CEA. Pickering B registered 0.64 AIR, achieving very good performance and better than the top quartile industry performance category set by the CEA.



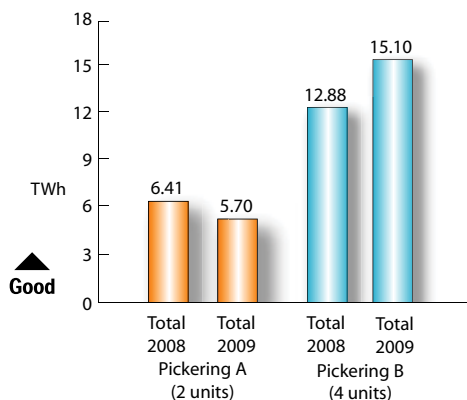
Safety Milestones

The safety of our employees, like the safe operation of our nuclear reactors is a top priority. In 2009:

- Pickering A employees achieved 3 million hours without a lost-time injury.
- Pickering B employees achieved over 5.5 million hours without a lost-time injury.
- Pickering Waste Management Facility employees achieved 15 years without a lost-time injury.

Electricity Production

Pickering A and B Electricity Production (TWh)

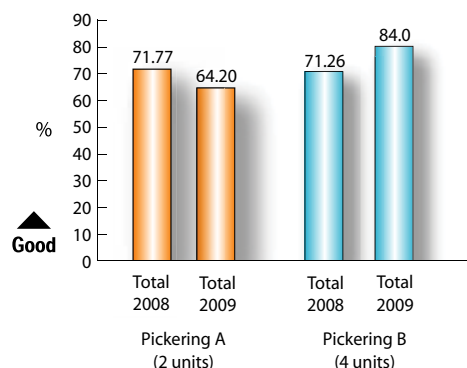


In 2009, Pickering’s electrical production of 5.7 TWh, registered a decrease compared to 2008. Total generation at Pickering A was impacted by unplanned maintenance outages as well as an extended planned maintenance outage. Pickering Unit 1 production of 4.11 TWh continues its best performance since 1978.

Production at Pickering B was up significantly in 2009. Total output from the four reactors was 15.1 TWh compared to 12.88 TWh in 2008. Pickering B’s forced loss rate reported a significant improvement from about 24 per cent in 2008 to a projected 6.3 per cent for 2009. Pickering B Unit 6 was returned to service two days ahead of schedule following the fall maintenance 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.

In 2009, Pickering A recorded a unit capability factor of 64.2 per cent – a decrease compared to 2008. This was due to unplanned outages to allow maintenance on the liquid zone control system.

Pickering B showed an increase in its unit capability factor reflecting the station’s increased electrical output. In 2009, Pickering B achieved a unit capability factor of 84 per cent. Pickering B Unit 6 was returned to service two days ahead of schedule following its fall planned outage.

Protecting the Environment

During 2009, Pickering 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 Pickering Nuclear and across OPG include the following:

- As part of OPG’s annual charity campaign in 2009, employees across Durham Region donated more than \$900,000 to charities and local organizations.
- The Canadian Nuclear Safety Commission released its annual assessment in which “CNSC staff concluded that nuclear power plants in Canada operated safely during 2008.”
- OPG submitted the Pickering B Integrated Safety Review Study to the CNSC. The report concludes the existing Pickering B station demonstrates a high level of compliance with modern codes and standards and can be operated safely today and in the future.
- The Darlington New Nuclear Project achieved a significant milestone in OPG’s efforts to bring new nuclear to the Darlington site. OPG submitted the “Environmental Impact Statement” and the application for a “Licence to Prepare Site” to the federal authorities.
- OPG was recognized in 2009 with the Zero Quest Gold Award from the Electrical and Utilities Safety Association. The award recognizes a company’s ability to maintain a high level of safety management and safety performance for four consecutive years. OPG is the only company in the Zero Quest Program to reach this milestone.

Do you want to discuss any of our performance results with us? If so, please call us at 905-837-7272.