



Canadian Nuclear Association
Association nucléaire canadienne

Speaking Notes

for

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**Darlington New Nuclear Power Plant
Joint Review Panel**

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Check Against Delivery

Good afternoon Mr. Chairman, Panel members and all members of the community who are here today.

Before we proceed in making our submission on the Darlington New Nuclear Power Plant, I would like to start by saying that, on behalf of the 71,000 people who work in Canada's nuclear industry – from the workers at our Triumf nuclear research facility in British Columbia, from the SLOWPOKE-2 Facility at the University of Alberta, from Cameco and Areva uranium mining operations, the Saskatchewan Research Council, all our power plant workers and researchers in Ontario, Quebec and New Brunswick.

We commend the people of Japan, who have shown amazing resilience and fortitude since the devastating earthquake and tsunami three weeks ago.

The resources and spirit of the Japanese people were and will continue to be tested in the weeks and months ahead. They are facing their present challenges with solidarity, and courage.

As an industry, we are proud of our safety record, but we are never complacent. The tragedy in Japan will of course be examined thoroughly for lessons we can apply to safety here in Canada.

Our industry has a culture of cooperation and openness that transcends national boundaries and commercial interests in a way that is unique among industries worldwide. We consider an event at *any* nuclear plant to be an event at *every* plant.

As an industry, we have come together to share ideas, review our own plants, and consider lessons learned from the tragic events in Japan.

Our members are actively responding to the CNSC Requests for Action as well as to other reviews as required. All information will be submitted by the requested date - April 29.

Reviewing our industry's safety regulations is an iterative process and something we do on a routine basis. In fact, Darlington has already made industrial history by becoming the first nuclear station in North America to be certified under the tough ISO 14001 environmental standard.

The process of continuous improvement will and must go on.

And nuclear plants will continue to get better and safer.

Since the March 11 events in Japan, many have questioned the safety of Canada's nuclear industry.

Let me start by saying that, while there is no such thing as absolute safety, Canada's fleet of reactors are safe.

Seismic activity in the Durham Region is low and similar to most of eastern North America. The station is designed to withstand any anticipated activity.

Safety has always been – and continues to be - the number one priority for our industry. The nuclear safety culture goes beyond geographical boundaries. It is truly global.

I will talk more about safety, but want to take a moment and tell you a little about The Canadian Nuclear Association.

The Canadian Nuclear Association represents about 71,000 Canadians that are part of Canada's nuclear community.

Our members include uranium mining and processing companies, manufacturers, engineering firms, power utilities, labour unions and universities and associations.

Nuclear generates approximately 15 per cent of electricity in Canada, and over 55 per cent of Ontario's total electricity.

And I am proud to say that our industry has an exemplary track record with over 45 years of occupational and public and health safety.

But today, I am here to talk about an exciting project: The Darlington New Nuclear Power Plant.

As stated in the CNA's written intervention, we recognize that the Joint Review Panel has a sizeable task ahead of them.

However, given OPG's considerable operating experience and the favourable Environmental Impact Statement findings, the CNA believes that OPG should be granted a favourable environmental assessment decision and a license to prepare the future site of the Darlington Project.

We see this project as an important step in fulfilling Canada's growing energy demands. It is an integral part of the Province's plan to maintain its baseload nuclear generation capacity and is also essential for the maintenance of Canada's electricity supply.

Today, I will touch on some very important topics, as they relate both to the Darlington Project and our industry as a whole.

They include:

- The economic benefits of the project;
- Environmental effects of the project, and their mitigation; and
- Safety considerations for the project and safety in our industry as a whole.

But before I begin, I want to say that our nuclear industry is truly a global community, and no one knows this better than the citizens of Clarington, home to The Darlington Nuclear Generating Station and the proposed new nuclear power plant.

OPG's Darlington Nuclear Generating Station has been a part of this community for over 25 years. Even 25 years ago, the community of Clarington possessed a vision to work with the nuclear industry. It recognized the opportunities for jobs, prosperity and growth – and it seized them.

Clarington is an example of what communities can accomplish all over Canada – and the world – when it comes to energy development.

OPG has been a critical partner in this vision, and has maintained the trust

and respect of the Clarington community through its actions, disciplined safety regimes and commitment to the community.

I think it is fair to say that past performance is the best indicator of future potential.

OPG has a strong track record. It has the operational experience, talent and proven systems to lead the Darlington project to success.

One of the objectives of The Canadian Environmental Assessment Act is to:

*“encourage responsible authorities to take actions that promote sustainable development and thereby achieve or maintain a **healthy environment** and a **healthy economy**”*

The Darlington project certainly does this, which I will speak more about later.

But the most important factor in all major decisions, if the outcome is to be successful, has to be people, and community. What is the best decision, ***the right decision***, for our communities today and in the future?

To me, community is first and foremost about ***people***. It is about reaching out to your neighbour, whether you're at home, at work or at the shopping centre. It is about ***human connection***.

The Darlington Project is more than a construction project – it is about how our nuclear industry is playing a crucial role in keeping our communities economically vibrant, environmentally sound and healthy.

Economy

With respect to socio-economic effects, there is a defined need to ensure that Canada will maintain its base of highly skilled professionals, and sustain its advantage in science and technology innovation.

As Canada and the world emerge from an economic downturn, the nuclear industry is helping to sustain and create high paying and highly skilled jobs.

In fact, Canada's nuclear sector is already a 6.6 billion-dollar-per-year industry. Every year, we generate 1.5 billion dollars in federal and provincial taxes, and provide rewarding careers to about 71,000 Canadians.

A recent report by the Canadian Manufacturers & Exporters showed that just two projects alone—the refurbishment of nuclear facilities at Bruce and Darlington—will support almost 25,000 jobs for a decade, injecting \$5 billion annually into Ontario's economy.

The Darlington Project alone has the potential to employ 7,500 workers, directly and indirectly, all across Ontario.

The increase in workers has the potential to increase the spending associated with the Darlington Project, increasing the Province's annual Gross Domestic Product (GDP) by as much as \$1.4 billion.

The increase in GDP corresponds to an approximate \$500 million increase in total household income in the Province of Ontario.

The nuclear sector is also doing its part to maintain Canada's position as an export-based economy, given that our members generate annual export sales of 1.2 billion dollars per year.

Nuclear energy is affordable. After all, the cost of nuclear – or the misleading perceptions that costs are just too high – is something we should address now.

Because, when all costs are considered over the long-term, Canadians pay the same or less for electricity from nuclear power compared to all other forms of electricity.

According to a 2010 study conducted by the OECD, the levelized cost of electricity for nuclear is lower than that of most other sources of electricity. This is particularly true once the cost of CO₂ emissions is taken into account. An incoming price on carbon (\$30/tonne) could make nuclear power cheaper than clean coal and gas technology, or solar. It would be on par with wind, and significantly cheaper than solar.

In short, nuclear energy is 24-hour baseload power. It is affordable, available and reliable in meeting growing demands for electricity, now and in the future.

Environment

One of, if not the most important resource we have is our environment.

We, as an industry are committed to environmental stewardship: protecting the land, air and water, both in the communities in which we operate, and globally.

Many of the predicted effects of the Darlington project are “known” and have therefore been pre-empted through the application of OPG’s proven protection measures.

OPG is committed to aquatic and environmental stewardship, and has been recognized for its past performance with several awards, including the prestigious William W. Howard CEO Award in 2009, which recognized their history of excellence in conservation, education and outreach.

Nuclear energy provides a clean and reliable source of power and is an important part of Canada’s clean energy portfolio.

Throughout construction, potential detriments to air quality will be largely avoided by using standardized protection measures used by the construction industry.

Putting our values into action, at all stages of our industry, is something we are committed to doing. *Quite simply, it is the right thing to do.*

As Canada and the global community work to address the challenges of Climate Change, nuclear energy is an important part of Canada’s clean energy portfolio.

That’s because nuclear power plants emit virtually no greenhouse gases as a result of their operations. There is a carbon footprint, but it’s a very small one, and it stems from the energy consumed when nuclear facilities are being constructed.

This fact was verified by the Canadian Energy Research Institute.

It analyzed greenhouse gas emissions from various power generation sources and concluded that energy generated from nuclear power plants results in emission levels that are much lower than coal, oil, and natural gas. In fact, the emissions profile of nuclear energy is similar to those of wind, solar and hydro.

Replacing fossil-based energy with nuclear energy can have a very positive effect as we strive to lessen our country's carbon footprint.

Safety

I have already touched upon the safety of our industry, but want to re-iterate that Canada has an exemplary nuclear track record with over 45 years of occupational and public health and safety.

The Canadian Nuclear Safety Commission, the federal agency that regulates the use of nuclear energy and materials, does this to protect the health, safety and security of Canadians and the environment.

CNSC staff are located on site at each of Canada's nuclear power plants and elsewhere across Canada to ensure that nuclear materials are safe and that facility operators are prepared in the event of an emergency.

Nuclear operators and personnel are carefully selected, highly trained and qualified, and authorized by the CNSC.

Workers complete about 30 continuing training sessions over a five-year period. This is rigorous stuff and it includes training and testing on simulators that replicate what happens in a real control room.

Simulations are carried out to simulate operating conditions that range from normal steady-as-she-goes to an all-out emergency situation. This training ensures that the skills of our workers are up-to-date, and it helps give stakeholders like you confidence that nuclear power plants will be operated safely.

Our industry's activities are also monitored by Environment Canada, Health Canada, Fisheries and Oceans Canada, Transport Canada, and the International Atomic Energy Agency.

Beyond this, there are many other layers of protection between Canadian nuclear operations and our employees and the communities in which we operate.

These layers ensure the safety of our people, our communities and our shared environment.

We take all of this very seriously because our workers and their families live in the communities where our member companies operate.

So if you work in or live near a nuclear facility, I can look you in the eye and say with confidence that safety has always been our utmost concern and our first priority. And it always will be.

In fact, if you work or live near a nuclear facility, you could probably talk much more about the safety record of our industry better than most of us.

As for the Darlington Project, the Environmental Assessment results indicate that it is indeed protective of the environment.

Environmental effects will be limited as a result of OPG's more than 40 years of operational experience and proven systems and the potential effects of construction will be limited through the application of well-established protection measures used by the construction industry.

I am a firm believer that the best indicator of future performance is past performance. OPG has a strong track record and I am confident that they can lead the Darlington Project successfully.

It is true that the project is an important step in fulfilling Canada's growing energy demands. In fact, just last November, the Government of Ontario committed to clean, reliable nuclear power remaining at approximately 50 per cent of the province's electricity supply as a key part of the province's Long-Term Energy Plan. But nuclear is also important for our communities.

As I discussed today, the benefits of this project will be felt in the

Municipality of Clarington, but also across Ontario - and Canada. It will be a crucial step forward in the growth of the community.

Conclusion

Canada's providers of nuclear power generation are committed to the environment, its preservation and its future. They, along with the global community, are continually striving to improve its safety, its economics, and its environmental performance.

With that, I want to thank you again for inviting me to be here this afternoon. I am happy to take questions. Thank you.