



Oral Presentation

Exposé oral

**Submission from
BWXT Canada Ltd.**

**Mémoire de
BWXT Canada Ltd.**

In the Matter of

À l'égard de

**Bruce Power Inc. – Bruce A and B
Nuclear Generating Station**

**Bruce Power Inc. - Centrale nucléaire de
Bruce A et Bruce B**

Request for a ten-year renewal of its Nuclear
Power Reactor Operating Licence for the
Bruce A and B Nuclear Generating Station

Demande de renouvellement, pour une période
de dix ans, de son permis d'exploitation d'un
réacteur nucléaire de puissance à la centrale
nucléaire de Bruce A et Bruce B

Commission Public Hearing – Part 2

**Audience publique de la Commission –
Partie 2**

May 28-31, 2018

28-31 mai 2018



CNSC Licensing Hearing for Bruce Power Nuclear Generating Stations A & B

John MacQuarrie, President

May 30, 2018

About BWXT in Canada

- Over 60 years of CANDU experience
- Locations across Ontario:
 - Arnprior
 - Peterborough
 - Toronto
 - Cambridge
 - Port Elgin
 - Pickering
- Primary segments: Engineering, Components, Fuel and Field Services

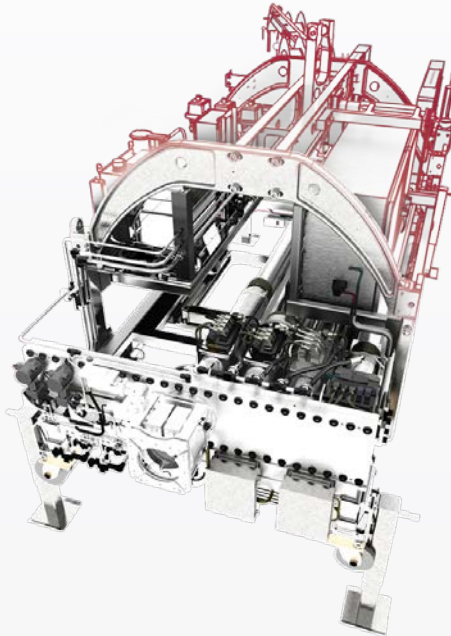


900+
employees in Canada

North America's largest manufacturer of heavy nuclear components

Our Work with Bruce Power

- Extensive experience working with Bruce Power for **40+** years – since its construction in the 1970s.
 - Supplied its **8** original steam generators and every steam generator put into service
- Today, BWXT designs and manufactures components, and delivers field & engineering services.
 - Routinely onsite to provide outage services for critical plant components ~ engineering, tooling development and site work execution.
- BWXT will supply new steam generators, waste containers and critical heat exchangers as part of life-extension project.



Safety

- Safety is the number one priority.
- BWXT employees constantly at site – safety culture is deeply embedded and continues to thrive at Bruce Power.
- Bruce Power's safety performance is rigorously reviewed by the Canadian Nuclear Safety Commission.
 - Fully Satisfactory rating for Conventional Health & Safety every year since 2012.



Communities have expressed confidence in Bruce Power. In 2017 polling, **93%** of Bruce, Grey and Huron County residents said they are confident that Bruce Power operates safely.

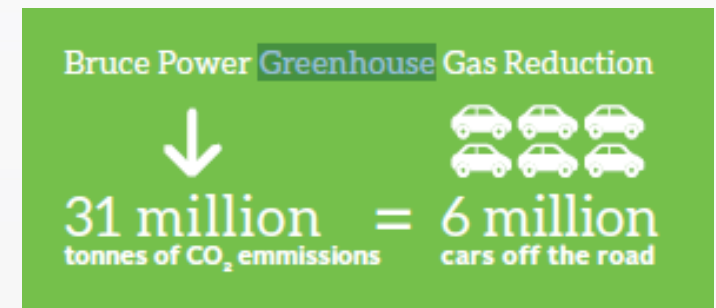
Community

- Bruce Power enables BWXT to take a proactive role in the region resulting in BWXT providing financial support to nine local organizations.
- Indigenous Relations Suppliers Network established
 - Facilitates opportunity to forge relationships with Indigenous communities and participate in initiatives.
- Region of Saugeen Shores is growing – BWXT opened an office in late 2017.



More than just Power

- Beyond the low-cost, clean, safe and reliable energy that powers about **30%** of homes and businesses in the province, Bruce Power's Cobalt-60 isotope supply is used to help sterilize **40%** of the world's single-use medical devices.
- Bruce Power will begin harvesting High Specific Activity (HSA) Cobalt in 2019. HSA Cobalt has revolutionized medical technologies and the treatment of some brain tumors.
- Nuclear plays significant role in helping to achieve Canada's greenhouse gas emission reduction targets.
 - Bruce Power produces **6,300** megawatts of carbon-free electricity annually, which is the equivalent to keeping six million cars off the road each year.



Renewal of Licence

BWXT fully supports Bruce Power's application to the Canadian Nuclear Safety Commission to renew the Bruce Nuclear Generating Stations (NGS) A and B reactor operating licence for a period of 10 years.

- ✓ Supports the local economy and **60,000+** high-value jobs across Ontario that support the nuclear industry.
- ✓ Confidence in Bruce Power to continue operating with the highest regard for the health and safety of its workers, community and environment.
- ✓ Ensures continued production of safe, reliable, clean and affordable power for Ontario.





Louise Levert
Secretariat
Canadian Nuclear Safety Commission
280 Slater St., P.O. Box 1046
Ottawa, Ontario K1P 5S9

April 12, 2018

Subject: Renewal of Bruce Power's Reactor Operating License for the Bruce Nuclear Generating Stations A & B

Dear Commission Members,

BWXT Canada Ltd., and its subsidiary BWXT Nuclear Energy Canada (together BWXT), support Bruce Power's application to the Canadian Nuclear Safety Commission to renew the Bruce Nuclear Generating Stations (NGS) A and B reactor operating licence for a period of 10 years.

BWXT has been supplying the nuclear industry with the fuel, equipment, components, engineering and field services needed to successfully and safely operate and refurbish nuclear power plants for over 60 years. We have extensive experience working with the CANDU® reactor fleet nationally and internationally, and have been involved with Bruce Power since its construction, including the design and supply of its original eight steam generators.

Our work with Bruce Power has expanded greatly over the last 40 years to include components and field and engineering services. All of our work is held to the highest standards of safety and quality. A few examples of the high-quality work BWXT performs for Bruce Power includes:

- BWXT, in collaboration with other companies, designed and built two Bruce Reactor Inspection Maintenance Systems – the second of which was shipped in February, 2017;
- BWXT provides outage services for various critical plant components – work that includes engineering, tooling development and site work execution; and
- As part of Bruce Power's current life-extension project, BWXT will supply new steam generators and critical heat exchangers.

Having worked with Bruce Power for decades, we have experienced first-hand the high degree of importance that they place on safety. At BWXT safety is also our number one priority, and it is injected into every aspect of our work, whether that work is at one of our own facilities or onsite at Bruce Power. BWXT has employees based full-time at Bruce Power along with employees who regularly conduct work there, and all can attest that the safety culture is deeply embedded and continues to thrive at Bruce Power.

Bruce Power's commitment to excellence in safety has contributed to its long track record of safe operations that are rigorously reviewed and regulated by Canada's nuclear regulator, the Canadian Nuclear Safety Commission (CNSC). The CNSC's robust regulatory oversight program works to ensure that Bruce Power meets all of its licence obligations within the 14 Safety and Control Areas (SCAs). One of these SCA's is Conventional Health and Safety – an area that Bruce Power has excelled, which is evident by its achievement of a Fully Satisfactory (A+) rating by the CNSC every year since 2012.

The confidence in Bruce Power's safety performance extends beyond the regulator and into the local communities. In a May, 2017 poll by Ipsos Public Affairs, 93 per cent of Bruce, Grey and Huron County residents said they are confident that the Bruce Power facility operates safely, and over three quarters of respondents did not mention any concerns regarding Bruce Power's operations. This is a tremendous

achievement that is reflective of Bruce Power's safety record and its commitment to extensive community engagement and communication with local citizens.

Bruce Power's commitment to engaging and supporting the local community has paved the way for other companies, like BWXT, to also take a proactive role in the region. A prime example of this is Bruce Power's establishment of the Indigenous Relations Suppliers Network (IRSN). The IRSN is part of Bruce Power's commitment to increase employment and identify potential business development opportunities to create new economic opportunities for the community. BWXT is an active participant in IRSN and in fact, broadened its commitment to Indigenous relations by joining the Canadian Council of Aboriginal Businesses last year. By bringing together its suppliers through the IRSN platform, Bruce Power is facilitating the opportunity for companies like BWXT to forge new relationships with Indigenous communities located in and around Bruce County, and to support and participate in initiatives that are deemed important by these communities.

Significant investments of time and money to the region demonstrate the value that Bruce Power places on the communities in which it operates in and around. Bruce Power's contributions have helped the region to flourish. Strong communities cultivate economic development opportunities and foster effective socio-economic frameworks that contribute to continued health and prosperity. This is part of what motivated BWXT to proudly invest in opening an office in the growing region of Saugeen Shores earlier in 2018.

Bruce Power has been a passionate leader in encouraging and enabling the broader nuclear industry to engage with the Bruce County communities – a role that we embrace and have every intention to continue. Last year, BWXT provided financial support (through Bruce Power events) to nine local organizations that make a positive and meaningful contribution to the Bruce County region. The nine organizations were:

- Saugeen Ojibway Nation's Youth Leaders in Training
- Spinal Cord Injury Ontario
- Huron Shores Hospice
- United Way of Bruce Grey
- Liv-a-Little
- Unity for Autism
- Wounded Warriors Canada
- Kincardine & Community Health Care Foundation
- Saugeen Memorial Hospital

Bruce Power's production of low-cost, clean, safe and reliable energy powers about 30 per cent of homes and businesses in the province. But beyond that, Bruce Power provides Cobalt-60 isotope supply that is used to help sterilize 40 per cent of the world's single-use medical devices. Bruce Power's impact to the advancement of health care around the world will be further felt when it begins to harvest High Specific Activity (HSA) Cobalt in 2019. HSA Cobalt has revolutionized medical technologies and the treatment of some brain tumors through the use of a highly-specialized non-invasive gamma knife.

Healthcare in Ontario, and all Ontarians, benefit not just from Bruce Power's production of isotopes, but from the simple fact that carbon-free nuclear power helps keep the air clean. The Government of Canada set a goal to reduce greenhouse gas emissions to 15 per cent below 1990 levels by 2020 and ultimately to 80 per cent below 1990 levels by 2050. Nuclear plays an important role in helping to achieve these targets. Bruce Power produces 6,300 megawatts of carbon-free electricity annually, which is the equivalent to keeping six million cars off the road each year.

Bruce Power is more than just a provider of electricity. It is a good corporate citizen and leader of an industry that works together for the benefit of local communities and for every home and business that is powered by low-cost, safe, reliable and clean nuclear energy here in Ontario. The air in the province is cleaner thanks to nuclear and its significant role in helping Ontario end its use of coal-fired electricity. And globally, health care patients from around the world benefit from Bruce Power through its production of Cobalt-60 used in sterilization – while others, requiring life-saving radiation treatment, will come to benefit from the production and stable supply of HSA Cobalt.

A renewal of Bruce Power's Nuclear Power Plant Operating Licence will also support the local economy and the broader provincial economy through the employment of over 60,000 high-value jobs across Ontario. BWXT works hand-in-hand with highly-skilled, experienced and qualified employees at Bruce Power every day, and we have absolute confidence that Bruce Power will continue to operate Bruce A and Bruce B Nuclear Generating Stations with the highest regard for the health and safety of its workers, community and environment.

Sincerely,

A handwritten signature in black ink that reads "John MacQuarrie". The signature is written in a cursive, flowing style.

John MacQuarrie
President, BWXT Canada and BWXT NEC