

WINTER 2017

From THE Point

STATION NEWS
FOR THE COMMUNITY

**A Conversation with our Station Director
Michael Hare: Safety-focused leadership**

Probabilistic Safety Assessment
PLNGS is Safe and Robust



Énergie NB Power

A Conversation with our Station Director Michael Hare: Safety-focused leadership



With more than 25 years of experience at NB Power, Michael Hare is a leader with a strong background in Operations and a focus on safety.

Michael graduated from the University of New Brunswick in 1987 with a Bachelor of Science in Mechanical Engineering. He began his career at NB Power as a student in 1983 working at conventional power plants including Grand Lake, Dalhousie and Coleson Cove. He joined the Nuclear Division in 1992 and worked in the Engineering Technical Unit until 1999 when he was accepted into Certification Training. Michael became a Control Room Operator before becoming certified as a Shift Supervisor. He led the Station's return-to-service from Refurbishment as the Restart/Commissioning Manager, and most recently served as Operations Manager. Michael became the PLNGS Station Director in July 2015.

Q. What does a Station Director at the Point Lepreau Nuclear Generating Station (PLNGS) do?

A. Reporting to our Site Vice President, Brett Plummer, I provide leadership and direction in a number of areas of responsibility beginning with Safety, and including the Operations, Fuel Handling, Emergency Services, Chemistry, Environment and Training teams.

As Station Director, my responsibilities include overseeing the day-to-day operation of PLNGS and ensuring worker and plant safety. I work in close collaboration with the Senior Management Team

to ensure we take a cross-functional approach to our continuous improvement plan and in aligning ourselves with industry best practices. Key to our success is having engaged our employees with a long-term improvement plan called Navigating for Excellence that serves as our organizational compass towards reaching our ultimate goal of becoming one of the top nuclear plants in Canada.

Q. How do you take advantage of the experience and lessons learned at other nuclear power plants?

A. The nuclear industry is unique in how openly it shares information around the world. We know that

it takes all of us working together to be successful. Through organizations such as the World Association of Nuclear Operators (WANO) and the Institute of Nuclear Power Operations (INPO), we work together to maximize the knowledge that is already out there. If a plant with a similar design as Point Lepreau has a major equipment issue, we can often use their experience to take action to prevent that kind of event from occurring here.

Another way we benefit is through collaboration. For example, I spent most of 2013 with INPO visiting other nuclear plants in the world to help them identify strengths and areas for improvement. This experience helped me to gain insight into how some of the best plants in the world are run so we can continue to make improvements at PLNGS. A number of our staff have participated in these activities, and in turn, we regularly have visitors from other plants come to our Station to offer assistance, learn about our business and share information.

Q. How important is Point Lepreau to our province?

A. Point Lepreau is the backbone of NB Power's electrical system. Depending on the time of year, when the unit is operating at full power it produces 40-60% of the total power generated at NB Power facilities. To make sure NB Power is able to meet customer demand, we have a responsibility to operate the Station in a safe and reliable manner.

Increasingly, as the province, the country and the international community work to address the global climate change challenge and a low-carbon economy, the value of PLNGS as a non-greenhouse gas emitting generation asset should only continue to grow.

The Station also provides major economic benefits to the province by providing employment to more than 800 people and utilizing many local products and services.

Q. Having worked at the Station for more than two decades, what can you tell us about the staff who work there?

A. Our people are truly our greatest asset. We have one of the most intelligent, hardworking and dedicated workforces in the world. I believe our staff are committed to upholding the highest standards of professionalism and to putting safety first in all aspects of their work. They understand the unique responsibilities that come with operating a

nuclear power plant. We all take that accountability very seriously and know that we must continue to demonstrate our safety commitment every day.

On a personal level, staff and contractors at Point Lepreau contribute to their communities in many ways. Each year, a number of worker-led charity campaigns occur at the Station, providing funds and support to charities including the United Way, the Saint Joseph's Hospital Foundation, Harbour Lights and local food banks. Many of our staff are also involved in personal volunteer work and community partnerships including local schools and post-secondary institutions. We are proud to have staff who care so much about giving back.

Q. What is your role in the upcoming licence renewal hearings?

A. I will attend both the Part One Hearing in Ottawa and the Part Two Hearing in Saint John and may be called upon to answer questions by the CNSC Commission. This process gives us the opportunity to prove to the public and our regulator that we are operating the plant safely and meeting or exceeding all regulatory standards.

As part of our community engagement strategy, I regularly participate in meetings with our Community Relations Liaison Committee, government and municipal leaders and other stakeholders. It's important for us to engage and inform people about nuclear power and the important work we are doing here at the Station. In addition to safe and reliable operations, we are committed to maintaining our social licence to ensure continued support from our communities and the people of New Brunswick. The people I've spoken to are very supportive of the Station and want to know how their community or organization can contribute to our success.

Q. When you're not working, how do you spend your time?

A. My wife and I have been married for 20 years and live in the community of Grand Bay-Westfield. We have two daughters, one who is married and working in Nova Scotia, and the youngest will be starting university next year. I enjoy spending time with family and friends, and my hobbies include boating, golfing and hockey.



PROBABILISTIC SAFETY ASSESSMENT: PLNGS IS SAFE AND ROBUST

In accordance with regulatory requirements, NB Power completed a Probabilistic Safety Assessment (PSA) for the Point Lepreau Nuclear Generating Station in 2016. A link to a summary document was provided in the November 2016 Station Update on www.nbpower.com.

The results of the PSA demonstrate that the plant is safe and robust and can withstand a wide variety of hazards. Results indicate that all internationally-defined targets have been met and that no further plant improvements are required at this time to deal with possible internal and external hazards.

A PSA is a tool that assesses the probability and consequences of potential hazards to a facility in order to eliminate risk and drive safety improvements. Canadian nuclear power plants are required to periodically update their PSAs and communicate findings with the public.

The comprehensive tool examines the following questions:

- What could go wrong?
- How likely is it?
- What would the consequences be?

The assessment helps us to better understand the plant and identify potential safety improvements. It is just one of many tools and programs utilized at PLNGS to ensure plant safety.

The safety of workers and the public is the highest priority at PLNGS. The Station is operated to the highest nuclear safety standards and is held to rigorous requirements by the CNSC. PLNGS has been designed and built with multiple barriers to safeguard against the release of radioactive materials. These barriers are further strengthened by a culture of prevention and safety with prudent plant operation and maintenance, regular testing, monitoring and inspection by our highly qualified staff, and comprehensive management and performance oversight programs.

You can read more about the PSA results at www.nbpower.com/en/about-us/regulatory/nuclear/probabilistic-safety-assessment



ENVIRONMENTAL MONITORING

Aaron Murray, a member of the NB Power Health Physics Team, in the field gathering samples for the Environmental Monitoring Program.

To ensure we are being a responsible neighbour, the PLNGS Health Physics Team monitors all aspects of the environment surrounding our facility.

As required by the *Nuclear Safety and Control Act*, our Station maintains an Environmental Monitoring Program (EMP) to demonstrate that the public and the environment are protected from Station emissions.

Our EMP results are submitted to the Canadian Nuclear Safety Commission (CNSC) to demonstrate compliance with applicable guidelines and limits, as set out in regulations that oversee Canada's nuclear industry. Results are provided quarterly and annually.

The EMP includes the sampling and analysis of air, water (well, surface and seawater), milk, berries, garden produce, vegetation, soil, precipitation, seafood and sediments, from locations at the Station and in the community.

Approximately 20 local residents participate in this program by

providing samples to analyze, including locally caught seafood, well water and vegetables grown in their gardens. Some also allow us to operate air monitoring stations on their properties.

The 2015 results from the EMP surrounding the PLNGS facility demonstrate that there are no negative health impacts to the public or negative environmental impacts.

In 2015, our monitoring indicated 0.56 microsieverts (μSv) dose to the public, just a fraction (0.06%) of the safe, allowable limit 1,000 μSv per year as set by the CNSC. To put this in perspective, natural occurring background radiation from the sun, rocks, etc. is approximately 2,000 to 5,000 μSv per year. A single chest x-ray represents approximately 70 μSv .

To complement existing and ongoing compliance activities, the CNSC has an Independent Environmental Monitoring Program (IEMP). This program validates the results of licensees' programs through independent sampling and analysis by the CNSC.

The most recent IEMP results for around the PLNGS facility confirm that there are no health impacts and

“ The 2015 results from the EMP surrounding the PLNGS facility demonstrate that there are no negative health impacts to the public or negative environmental impacts. ”

that the public and the environment around the PLNGS facility are safe.

For more details on the CNSC IEMP, visit www.nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/point-lepreau.cfm



Getting youth excited about future career opportunities

On November 2, 2016, PLNGS hosted 48 grade nine students as part of Take Our Kids to Work Day. The students came from high schools between St. Stephen and Hampton, with several from the communities surrounding the Station. The Station has supported this valuable youth learning opportunity since 1994.

The students started off their day with a pre-job brief that outlined just how important safety is at the Station. This discussion helped the students understand the processes put in place to keep all workers and visitors to the plant safe.

For many, it was their first time wearing safety glasses or hard hats. But it was everyone's first time trying on an air-supplied plastic suit, protective gear used at the Station.

A tour of the plant helped participants learn about how electricity is generated and how the diverse careers available at PLNGS support safe, reliable operation. Students also attended information sessions and

demonstrations about a wide variety of topics including how the plant is operated, training, security, firefighting, electrical and mechanical maintenance.

Carter Corning, son of employee Paul Corning, and student at Fundy High School, really enjoyed his day at PLNGS.

"Being at an NB Power facility was an intriguing experience, one which I'd love to do again someday," said Carter. "There is no way to narrow it down to just one thing I enjoyed since the whole tour and event was very interesting."



Kara-Ann Lynn Hampton checking out the buttons on a Main Control Room panel in the simulator training facility.

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– Carter Corning



Public Information Session



Top: Paul Thompson, PLNGS Senior Strategic Advisor, explaining the different systems that support safe operation in the Reactor Building.

Bottom: Gordon Dalzell, a local environmental advocate, learning more about how nuclear power is generated from Leah Belding, PLNGS Control Room Operator.

PLNGS IS HOSTING TWO ADDITIONAL PUBLIC INFORMATION SESSIONS:

Saint John: January 17, 2017, 5:00 – 7:30 p.m. at the Hilton Saint John

St. George: February 27, 2017, 6:00 – 8:00 p.m. at the Civic Center at Magaguadavic Place

On November 29, 2016, PLNGS hosted a Public Information Session at the Dipper Harbour Fire Hall. This session provided members of the public with an opportunity to learn about the programs in place to ensure safe, reliable operation of the Station. Two dozen NB Power employees were on hand to answer questions about the Station and the licence renewal process.

Attendees engaged in conversations about a wide variety of topics, including the environment, safety, emergency preparedness, what is being done to improve equipment reliability, and NB Power as a whole.

Brett Plummer, Site Vice President, says that sessions like these are an opportunity for NB Power to not only share information, but receive feedback from the community.

“Face-to-face discussions like the ones we had on November 29 provide our team with valuable insight from the community,” said Brett. “We strive to keep everyone informed about our operational activities, so conversations with neighbours of the Station help us to evaluate how well we’re doing and in what areas we can improve that engagement.”



UPDATE ON LICENCE RENEWAL ACTIVITIES

In June 2016, NB Power applied for a five-year Power Reactor Operating Licence (PROL) issued by an independent federal nuclear regulator, the Canadian Nuclear Safety Commission (CNSC). The current PROL expires in June 2017.

The PLNGS Regulatory Affairs Team, led by Jason Nouwens and Rick Gauthier, has been preparing for the two-part hearings with support from across the Station.

“In the coming months, as part of the licence renewal process, we will be demonstrating to the regulator that PLNGS continues to operate safely, meeting or exceeding the requirements of the *Nuclear Safety and Control Act*, to protect our staff and the public,” said Brett Plummer, Site Vice President and Chief Nuclear Officer.

The CNSC Commission makes decisions on the licensing of major nuclear facilities through a public hearing process. The hearings will be open to the public and streamed live on the CNSC website.

The CNSC Commission is comprised of nuclear experts with varied backgrounds. You can learn more about the

Commission Members at <http://cnscccsn.gc.ca/eng/the-commission/commission-members/index.cfm>

PART 1

Part 1 of the hearing will occur on January 26, 2017, in Ottawa, ON. It will involve presentations from NB Power and CNSC staff to the CNSC Commission. Commission Members will question both parties about the information that was submitted and presented.

PART 2

Part 2 of the hearing will occur May 10-11, 2017, in Saint John, NB. The Commission Members will continue the hearing process with participation from NB Power and CNSC staff. During Part 2, registered intervenors will have an opportunity to make presentations to the CNSC Commission.

PARTICIPATION

The public are encouraged to get involved in the regulatory process and are able to register with the CNSC to participate as an intervenor until March 27, 2017. Visit the CNSC website to learn more.



BEST WISHES FOR 2017

Wishing you a safe and happy New Year from the staff at PLNGS.

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