CANADIAN NUCLEAR WORKERS COUNCIL
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Message from the President

Nuclear's Role Addressing Climate Change Is Vital

While there may be a few holdouts, the global consensus is that climate change is real and that we are experiencing the impacts now. And post COP 21 in Paris, governments around the world are fine tuning their plans for dealing with it. Here at home, Ontario, B.C. and Quebec have been leading the charge and now our relatively new federal government is fully engaged.

Our elected officials also appear to agree that whatever is done must address this global challenge but also sustain and create jobs and the economy. A myriad of evidence suggests that nuclear energy is by far one of the most cost-effective options for addressing all. More specifically, it is one of Canada's best options for significantly reducing greenhouse gas emission, not to forget the substantial smog-causing pollutants it also helps avoid.

A 2014 Intergovernmental Panel on Climate Change analysis of life-cycle emissions (tons of carbon dioxide equivalent per gigawatt-hour) of energy technologies shows natural gas at 462, biomass at 253, solar PV at 53, hydro at 26, nuclear at 13 and onshore wind at 12. It should come as no surprise that Ontario supports the four-year extension for operating Pickering Nuclear and refurbishing the remainder of its nuclear fleet. As Ontario's baseload electricity workhorse, nuclear energy currently helps the province avoid about 60 million tonnes of GHG emissions each year.

Together, New Brunswick's investments in Point Lepreau and Ontario's renewal of its nuclear fleet, both provinces will make a significant contribution helping Canada achieve its GHG emission targets. Moreover, this clean, low-carbon electricity presents an opportunity to contribute even more here at home, in neighbouring jurisdictions and globally.

Powering zero emission vehicles and public transit with this clean energy can help achieve major reductions from one of Canada's largest emitters, transportation. And this low-carbon power, whether it be from these refurbished reactors and or new ones, could help reduce emissions from the oil sands.

Exports to our fossil-fuel dependent U.S. neighbours could help them reduce emissions. Exporting our uranium, nuclear technology and expertise means Canada could make a significant contribution on a global scale. As NRCAN's Parliamentary Secretary, Kim Rudd, noted in her speech to this year's CNA conference, "Canada's 2015 uranium production will offset between approximately 300 and 500 million tonnes of carbon dioxide emissions by fueling nuclear power in Canada and worldwide. That's comparable to emissions from an equivalent amount of electricity produced using natural gas or coal."

Our collective challenge is to ensure our decision-makers enact supportive nuclear energy policies that secure these environmental and concurrent economic growth and energy security benefits for Canada.

David Sluis

Point Lepreau Performs Well During Winter Months

In early February, NB Power indicated in one of its regular Station updates that the Point Lepreau Station had operated for 109 consecutive days at high power. In January, the station achieved a net capacity factor of 99.9 per cent.

This solid performance continued into the following month. The company's early March report noted that the station had been operating for 138 consecutive days at high power and had achieved a net capacity factor of 100 per cent for February 2016.

On April 1, NB Power announced that the Station would be taken off-line for about seven weeks to complete regularly scheduled maintenance. The planned work will require over 600 contractors and tradespeople from across the province to help undertake about 13,000 planned technical activities. This includes maintenance on both the conventional and nuclear components of the station. The outage has been planned to coincide with the seasonal increases in water flows in the hydro system and the province's lower seasonal electricity demand. Once completed, the work is expected to save the company up to $3 million annually.

NB Power's president and CEO, Gaëtan Thomas noted that the Station's exceptional performance during the winter months provided New Brunswickers with the heat and comfort they need.

Bruce Power Continues Solid Performance and Improvements

BP announced on April 1, 2016 that Unit 2 had been removed from service the day before for a planned maintenance outage. The announcement linked this outage to the company's extensive investment program during the year at Bruce A.

On April 14, Unit 1 set a new post-refurbishment record reaching 151 consecutive days of operation. Units 1 and 2 received extensive refurbishment and returned to service in 2012. On May 5, Unit 3 was removed from service for a planned maintenance outage that will extend into the third quarter of this year. Preparations continued for a Station Containment Outage (SCO), a maintenance program that is intended to confirm the integrity of the safety systems. Units 1 and 4 were removed from service for the SCO, which is mandated by the CNSC. Units 1 and 4 are expected to be returned to service later in May.

Last December, an Operational Safety and Review Team (OSART) from the International Atomic Energy Association (IAEA) began a review of the operational safety at Bruce B. The OSART Program has been in place since 1982 to support continuous operation safety improvements in Nuclear Power Plants worldwide and share best practices. The mission focused on objectively assessing BP's safety performance using the IAEA's Safety Standards as reference and to propose areas where further improvement could be considered by Bruce B management.

Areas covered by the review included: leadership and management for safety; training and qualification; operations; maintenance; technical support; operating experience; radiation protection; chemistry; emergency planning and preparedness, accident management, human, technology and organization interaction and long term operation. The report, released in May identified 10 good practices, 25 good performances, 12 suggestions and five recommendations.

Bruce Power Nuclear Plant, Courtesy of Bruce Power

Labour Negotiations Update

At the time this newsletter was written, none of the twenty Unions at Chalk Rive, Ontario or the Pinawa, Manitoba site had reached an agreement with Canadian Nuclear Laboratories (CNL).

USW Local 13173, Cameco Fuel Processing Plant at Port Hope, Ontario are still negotiating with the employer. The Collective agreement expires June 30. UNIFOR local 48S, Areva Mine & Mill at McClean Lake, Saskatchewan are continuing to meet with their employer. Their collective agreement will expire June 30. UNIFOR locals at GE-Hitachi facilities in Toronto and Peterborough reached and ratified new collective agreements in March.

Gentilly-2 Back In The Spotlight

In April 2016, the CNSC released the results of its Independent Environmental Monitoring Program for the Gentilly-2 Nuclear Facility. The results for 2015 confirmed that the public and environment around the facility were safe and that there are no health impacts.

The December 2015 CNWC newsletter reported that the CNSC would be holding a hearing early in May 2016 on Hydro Quebec's 10-year licence request related to the decommissioning of Gentilly-2. The public hearing took place on May 5th in Ottawa and transcripts are available on the CNSC's website regarding the proceedings. A decision is expected by June 30, 2016.

The Southern Mail newspaper (Bécancour/Nicolet-Yamaska) reported on May 25 that Hydro-Quebec had reached an agreement with almost all surplus engineers at the site. Ten engineers will be retained at the station. Local politicians are lobbying Hydro Quebec for the creation of a center of expertise near the nuclear power plant.

On May 26, 2016 the regional organization for civil security (ORSC) for Mauricie and Centre-du-Quebec announced the abolition of the external nuclear emergency plan for Gentilly-2, including measures related to iodine tablets. ORSC has determined that the nuclear installation is no longer a risk to the surrounding population. Steps are underway to inform the approximately 3,500 homes and businesses located in the 8 km zone around the facility of the changes.

What Others Are Saying

"Alberta's carbon tax will have virtually no impact on Alberta's carbon footprint. Lower income households will get a rebate, so no need to change. Middle-to high-income households will just pay the extra cost, so no real need to change. What is needed is legislation and sound decisions that ensure Alberta's carbon footprint will actually decrease in the future.

The NDP's plan to invest in solar and wind farms and replace coal generators with natural gas generators sounds green and politically correct, but it is a pre-climate change solution. In today's world we can no longer count on climate being predictable. It's true that natural gas has a smaller carbon footprint than coal, but it still produces carbon.

Instead of wasting Alberta taxpayers' money on solutions that will ultimately fail, we should invest in nuclear energy. I'm not talking about your granddad's 1950s nuclear power plant. I'm talking about the next generation of nuclear power.

Let's not waste money on outdated ideas that will be so last century by the time we actually get them up and running and invest in a reliable, carbon-free energy solution.

Source: *Calgary Herald, Editorial by Robert Clark,* Monday May 30, 2016

Positive Momentum Continues For Ontario Power Generation

OPG announced a $75 million investment in the Pickering Station's Unit 8 on March 8, 2016. This planned maintenance and inspection outage removed the unit from service on March 1, following more than 215 consecutive days of operation. On March 4, the company announced strong 2015 operating and financial results. The capability factor for the Darlington Nuclear Station was 76.9 per cent due to the planned four-unit Vacuum Building Outage in 2015. The capability factor for the Pickering Station increased to 79.4 per cent from 75.3 per cent the previous year primarily due to improved station performance.

On April 12, the company announced a $122 million investment for planned work on Darlington Nuclear Unit 4 ahead of the refurbishment work at the Station. The Unit was removed from service on April 8 following more than 159 consecutive days of operation for a planned maintenance and inspection outage. Two days later OPG received some good news on the refurbishment project. On April 14, the Federal Court of Appeal unanimously dismissed a judicial review by objectors to the environmental assessment of the Refurbishment Project for the Darlington Station. The Court found that there was nothing unreasonable about the determinations made by the responsible authorities and that the intervenors' arguments were not borne out by the evidence.

OPG announced on April 15 that it had informed the federal government of its intention to complete further Deep Geologic Repository studies by the end of the year. The Federal Minister of Environment and Climate Change requested in February that OPG conduct three further studies into the proposed low and intermediate level waste DGR before making a decision on the environmental assessment.

Worth Repeating….

"Nuclear is the missing link in our climate debate"

"An average-sized nuclear plant produces roughly the same amount of electricity from 4,000 wind turbines. So reports the International Energy Agency….

…Nuclear power in Canada accounts for 10 per cent of the country's energy, and the National Energy Board forecasts the share will tumble to 6 per cent by 2040. Ontario, which depends on nuclear for 57 per cent of its electrical energy, is refurbishing plants at Bruce and Darlington. The work will start in 2017 and continue until 2031. The costs will be huge.

So would the costs for other sources. Imagine where else Ontario could replace that 57 per cent of its energy needs. Conservation would go some way, sure. Tens and tens of thousands of windmills. Not bloody likely. Thousands and thousands of additional solar panels. Again sure would produce only a fraction of what's required. Imported hydro from Quebec? Very expensive and long distance. More hydro from Ontario sources. Sorry most of it is already tapped out….

Today, belatedly, Canada is trying to figure out how to reduce its greenhouse gas emissions. Some very expensive and half-baked schemes are being hatched (watch the Ontario government). New nuclear energy is not part of the national equation."

Source: *Globe and Mail*, Jeffery Simpson, May 19, 2016.

The Honourable Catherine McKenna
Minister of Environment and Climate Change

Cameco Faces Challenging Global Market Conditions

Cameco announced its Q4 and 2015 Financial Results on February 5, 2016, indicating that the company was continuing to perform well given the global challenges facing the industry. Highlights included record annual uranium production on the back of strong results at Cigar Lake.

On April 11, Cameco announced the establishment of a Six Rivers Fund, an independent non-profit corporation with a mandate to support youth, education, sports, recreation and health and wellness oriented projects and initiatives across the northern administration district. Organizers of the fund include community leaders from across northern Saskatchewan, Cameco and AREVA Resources Canada Inc. The Fund has $100,000 available for projects in 2016 and the founders have set an aspirational goal of $50 million in the coming decades.

The company announced operational changes in Saskatchewan and in the U.S. given current oversupply conditions in the market on April 21, 2016. Production at the Rabbit Lake operation will result in the reduction of about 500 positions and curtailed production at Cameco Resource' U.S. operations will affect about 85. This includes employees and long-term contractors. As well, Cameco reduced its 2016 production target at the McArthur River/Key Lake operation to 18 million pounds from 20 million pounds (100% basis). There are no workforce impacts related to this change.

Cameco ended the month with some positive news announcing on May 31 that the CNSC had approved an application by AREVA Resources Canada Inc. to increase the annual licensed production capacity of the McLean Lake milling operation. Ore from Cameco's Cigar Lake mine is milled and packaged at this facility.

In short…

Natural Resources PS Sees Nuclear Driving Innovation

Kim Rudd, Parliamentary Secretary to the Minister of Natural Resources

The Parliamentary Secretary for Canada's Ministry of Natural Resources, Kim Rudd, delivered a keynote address at the opening of the 20th Pacific Basin Nuclear Conference in Beijing, China on April 6th.

Ms. Rudd noted the long-standing relationship between Canada and China on trade and the mutually beneficial collaboration on nuclear projects dating back to 1994. Reference was made to the valued partnership the two countries have shared from the supply of uranium to the co-development of the Advanced Fuel CANDU reactor. The Paris Climate Change Agreement was described as opening up new doors for nuclear power and the opportunities these presented for deeper collaboration.

CNSC Draft Fitness For Duty Regulation

The consultation on the CNSC's draft REGDOC-2.2.4, *Fitness for Duty* commenced on November 9, 2015 and ended March 7, 2016. The CNSC's Impact Statement notes that, "The *General Nuclear Safety and Control Regulations* require the licensees ensure the presence of a sufficient number of qualified workers. To satisfy this requirement, workers must be competent and fit for duty." REGDOC-2.2.4. provides fitness for duty requirements and guidance for workers at "high-security sites" as defined in the *Nuclear Security Regulations*."

The CNWC provided its comments in a submission to the CNSC on March 7, 2016. The submission noted serious issues with an number of areas of the draft regulation. Comments were also made by nine other CNWC Member Unions (see http://nuclearsafety.gc.ca/eng/acts-and-regulations/regulatory-documents/history/regdoc2-2-4.cfm for details). The CNSC issued an invitation to provide feedback on the comments received during the period April 11, 2016 to May 13, 2016. Feedback was provided by the PWU. A presentation to the Commission and Publication Date are yet to be determined.

Saskatchewan Paper Positive About Nuclear

The Honourable Brad Wall, Premier of Saskatchewan

An April, 2016 editorial in the Prince Albert Daily Herald supported Premier Brad Wall's call to revisit the idea of nuclear power for Saskatchewan. The article noted the province's vast reserves of uranium and the role this plays in fuelling nuclear reactors around the world. Reference was also made to the split in public support—44% for versus 43% against. Ironically, support for uranium mining comes in at 77% while opposition to nuclear waste storage in the province is at 56%. The piece concluded with a call to address the safety and cost issues but "not considering the nuclear option would be a mistake."

Preservation of U.S. Reactors Urged

The U.S. Department of Energy held a summit on May 19, 2016 to identify policy options to improve the economic competitiveness of nuclear power plants. The event was an outcome of the DOE's Nuclear Energy's Gateway for Accelerated Innovation in Nuclear (GAIN) launched in November, 2015.

Dr. Ernest Moniz, U.S. Secretary of Energy

Energy Secretary Ernest Moniz told the summit that nuclear must remain a viable part of the U.S. supply mix if the Clean Power Plan's emissions reduction goals are to be met. Options critical to success included incentives, market structures and better characterization of the benefits and costs. Moniz noted that nuclear generation value streams were not being valued in "any uniform sense" across the country.

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The member groups are:
District Labour Councils (Grey/Bruce, Durham, Northumberland) • International Association of Firefighters (160) • International Association of Machinists & Aerospace Workers (608) • International Brotherhood of Electrical Workers (37) • Power Workers' Union • Professional Institute of The Public Service • Society of Energy Professionals Union • Society of Professional Engineers and Associates Union • UNIFOR (The Union for Canada) (S-48, O-599, & O-252) • United Steel Workers (14193, 13173, 8562, 8914, & 7806) • International Federation of Professional & Technical Engineers Union • Provincial Building and Construction Trades Council of Ontario • International Union of Operating Engineers