

**Pickering Nuclear Generating Station
Community Advisory Council
Virtual Meeting
Minutes, Tuesday, April 20, 2021
Highlights**

Site Update

Jon Franke discussed a recent Globe and Mail article that included misleading claims about data sent from OPG to the CNSC regarding the plant's licence to operate, which was granted in 2018. Jon also talked about the operating status of the units and about OPG's contribution to a Moltex Energy project to develop a process to reuse spent fuel from CANDU reactors. Jon expressed appreciation for a CAC intervention letter to the CNSC supporting renewal of OPG's site preparation licence for the Darlington New Nuclear Project.

Responsible Management of Nuclear By-Products

Kapil Aggarwal noted the strong safety performance of the nuclear waste management facilities across OPG. He also detailed how OPG's Nuclear Waste Management division is supporting Darlington Nuclear refurbishment and explained how OPG is minimizing the volume of nuclear waste.

Pickering Public/Community Affairs

Carrie-Anne Atkins presented an update on OPG's involvement in community activities. Among the items mentioned: the very widely disseminated Virtual Power Kids program, presented by OPG and its community partners; OPG's intensive public outreach regarding its application for renewal of its site preparation licence for the new nuclear project at Darlington; biodiversity and best practice awards won by OPG.

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Pickering CAC:

John Earley
Bill Houston
Greg Lymer
Tracy MacCharles
Pat Mattson
Sean McCullough
John Miseresky
Cody Morrison
Peter Ottensmeyer
Dan Shire
John Simpson
John Stirrat

Guest:

Jill Adams

Regrets:

Frank Dempsey
Donna Fabbro
Natalie Harder
Tim Kellar
Zachary Moshonas
Helen Shamsipour

OPG:

Kapil Aggarwal
Carrie-Anne Atkins
Jon Franke
Fred Kuntz
Mark Welt

Hardy Stevenson and Associates:

Francis Gillis
Dave Hardy

Topic #1: Introductory Comments

Senior Vice President Jon Franke noted that COVID-19 continues to ravage the community, and that we are seeing more cases now. However, the positive rate within the plant remains low. The vast majority of those who have tested positive within the plant received their infections from the community. The plant continues its safety protocols, including COVID screening, social distancing, masking when working at close quarters, etc. OPG recognizes that living through the pandemic is very stressful. In a virtual townhall session at the plant in February, OPG brought in an expert to discuss mental health issues arising from these stressful times.

CAC Facilitator Dave Hardy noted that the Council's intervention letter about OPG's application for renewal of the site preparation licence for the Darlington New Nuclear Project has been submitted to the CNSC. He added that recent weeks have been particularly lively for OPG and the nuclear industry: a Council member flagged a Globe and Mail article about the Nuclear Waste Management Organization (NWMO) process to site a repository for long-term storage of nuclear waste; OPG has contributed to a Moltex Energy project to develop recycling of used CANDU fuel; a Globe and Mail article claimed that the CNSC used faulty data about the safety of reactor pressure tubes in approving renewal of Pickering Nuclear's operating licence in 2018; OPG information meetings for stakeholders and the general public about the renewal of the site preparation licence for the Darlington project.

Topic #2: Review of Minutes

The CAC minutes of Feb. 16, 2021 were approved without changes.

Topic #3: Site Update

Jon Franke remarked that the pressure tube story in the Globe hinted that OPG used inaccurate data in its Fitness for Service evaluation submitted to the CNSC in its application for renewal of Pickering Nuclear's licence to operate. OPG takes hundreds, if not thousands of measurements each and every day at the station, as operators validate the integrity of various systems and their operations. This includes scraping the inside of pressure tubes and analysing the hydrogen content as one of many means of assessing pressure tube longevity.

The process requires specialized equipment which requires regular calibration, and OPG works with qualified vendors to perform this service. We have been working with two separate companies; one a long-time vendor and one a vendor for whom this type of analysis and equipment is new. Through our rigorous quality assurance reviews, the initial data collected from the new vendor appeared to be more favourable than typical results, and did not align with the data provided by the other vendor. So it was decided by OPG that this data would not be used for any purpose (i.e. the data was not used in

assessing or determining any outcome) while assessing the matter. Subsequently, the new vendor determined that the equipment needed recalibration.

Contrary to The Globe and Mail article, which indicated OPG used flawed data to validate the integrity of its pressure tubes, the original data obtained indicated Pickering's pressure tubes could perhaps operate *longer* than OPG had anticipated and predicted. OPG, as a result *challenged* the validity of this data to ensure the safety of our stations' fitness for service capability.

Since the recalibration, the integrity of the data has consistently proven to be accurate, and OPG continues to use both vendors as a means of providing independent validation.

A Council member referenced a March 24 statement from OPG responding to the Globe story (<https://www.opg.com/news/statement-regarding-recent-globe-and-mail-story-on-pickering-nuclear-generating-station/>). She asked if there were any other OPG communications to the public on this issue.

Jon said that the article was accusing the CNSC of using inaccurate data. The Commission provided a public response. ([CNSC response to the article published in the Globe and Mail on March 23, 2021 - Canadian Nuclear Safety Commission](#))

Jon continued with the site update:

- Units 1, 4, 6, and 7 are operating at full power. Unit 8 is in a planned outage. Unit 5 is just back on line, following treatment of an equipment failure in the transport of spent fuel to the storage bay (pool of water). That special tubing is now transporting the spent fuel safely.
- The very successful outage of Unit 8 remains on schedule. Some feeder pipes and one fuel channel have been replaced. We are getting data to ensure the unit is Fit for Service for its extended life.
- OPG's Centre for Canadian Nuclear Sustainability (CCNS) has contributed \$1 million to Moltex Energy for its project to develop a process to reuse spent fuel from CANDU reactors. Link to OPG press release: https://www.opg.com/media_releases/opg-collaborating-with-moltex-to-study-clean-energy-solutions/
- Jon expressed appreciation to the CAC for its intervention letter to the CNSC supporting OPG's application to renew its site preparation licence for the Darlington New Nuclear Project (DNNP). In support of the licence renewal application, the DNNP project team hosted a number of stakeholder activities including: two stakeholder workshops, one on March 9 for municipal stakeholders and on March 22 for Non-Governmental Organizations, and two public information sessions on April 6 and 8.

Jon responded to Council questions:

- *You mentioned OPG's contribution to the Moltex project to develop a reactor to recycle used CANDU fuel. ARC, a developer of small modular reactors, has written to me asking: how can we enter the Canadian market?*
Give me their information and I'll make sure it gets into the right hands. Further to nuclear sustainability, the CCNS has expressed interest in talking to the CAC, including discussing nuclear fuel recycling opportunities.

A Council member referenced a communication from the group Ontario's Nuclear Advantage which refuted Ontario Clean Air Alliance claims about the cost of nuclear energy (link: <https://www.ontariosnuclearadvantage.com/ontarios-nuclear-advantage-sent-the-following-response-to-newmarkettoday-ca-regarding-a-letter-written-by-the-ontario-clean-air-alliance/>).

Topic #4: Responsible Management of Nuclear By-Products

Kapil Aggarwal, Director of Eastern Waste Operations, talked about responsible management of nuclear by-products at OPG (Appendix 1). He was joined on line by Fred Kuntz, Senior Manager of Corporate Relations and Projects, and by Mark Welt, Section Manager of Operations and Maintenance.

Kapil noted that strong safety performance continues across OPG's Nuclear Waste Management (NWM) division: 10 years with no lost-time accident in all of NWM; 14 years at Darlington Waste Management Facility (DWMF); 26 years at Pickering Waste Management Facility (PWMF). He also reviewed NWM's strict COVID-19 protocols.

Kapil reviewed PWMF's very successful operation in 2020, when used fuel from Pickering Nuclear continued to be removed from the station and stored safely and on time. Storage Building 4 opened in October of that year.

He detailed how Nuclear Waste Management is supporting Darlington refurbishment by safely transporting, processing and storing the used reactor components and other materials.

Kapil explained how OPG is embracing the 3 Rs—reduce, reuse, recycle—to minimize the volume of stored materials. He also described how OPG's Nuclear Waste Management has stepped up its innovation portfolio.

Kapil noted, however, that there will always be some nuclear fuel left over from OPG operations, so the company remains committed to safe and permanent disposal.

Kapil Aggarwal, Fred Kuntz and Jon Franke responded to Council questions and comments:

- *Moltex says it uses a certain amount of zirconium in each pressure tube in its reactors, but does not clean this expensive zirconium from used tubes. This looks like a missed recycling opportunity.*
Fred: One of the challenges of used pressure tubes is their very high level of contamination. Recyclability is not the only criterion in the treatment of used tubes. There are other criteria, including economic feasibility, safety and scalability. There is already enough zirconium stored to supply small modular reactors in Canada. It is easy to overstate the case for recycling zirconium.
- *I understand that Units 2 and 3 at Pickering are now in safe storage. But is there any remaining fuel in those units?*
Kapil: There is no remaining fuel in Units 2 and 3 at Pickering.
Jon: After the closing of commercial operations at Pickering, we will be using data from the experience with removing fuel and de-watering Units 2 and 3 in decommissioning the other units at the site. We will be providing further information on this topic at a future meeting.

Topic #5: Pickering Public/Community Affairs

Carrie-Anne Atkins, Manager, Corporate Affairs, presented an update on OPG's involvement in community activities:

- The Winter issue of Neighbours Newsletter arrived in mailboxes in March.
- The Virtual Power Kids program, which has replaced this year's March Break Blitz, began on March 25 and is now in its last couple of weeks. Weekly virtual learning sessions have featured community partners and topics similar to past March break programs, including biodiversity, STEM (science, technology, engineering and mathematics), Indigenous culture, arts and climate change. 2,100 classes have participated. With 20 to 25 students per class, that equals over 42,000 participants. On this Thursday, April 22, the program will feature Driftwood Theatre.
- OPG has conducted intensive outreach during March and April regarding the Darlington New Nuclear Project. OPG has applied to the Canadian Nuclear Safety Commission (CNSC) for renewal of the site preparation licence for the project. At a later stage OPG would be applying for a licence to construct a small modular reactor (SMR). Stakeholder information sessions were held on March 9 and 22, and information sessions for the general public were held on April 6 and 8. OPG promoted these sessions through newspapers, social media and the Neighbours Newsletter. The CNSC will hold a public hearing on OPG's application on June 9 and 10.
- A shout-out to OPG's Western Waste Management Facility (WWMF) on being awarded Gold Certification by the Wildlife Habitat Council for its biodiversity

program. (The WWMF is located on a portion of the Bruce Power site that is retained by OPG.)

- And a shout-out to the Darlington Refurb Team on winning the Best Practice Award from the Electric Utility Cost Group for Darlington Unit 2 Refurbishment completion.
- The Region of Durham will hold the spring test of its nuclear public alerting system on May 3 and May 4.

Topic #6: Closing Remarks

A Council member requested a conversation with Fred Kuntz about minimizing the volume of used nuclear fuel. Fred said he would be very pleased to have that conversation and asked the member to send him an email to schedule the conversation.

Jon Franke thanked Carrie-Anne Atkins and Dave Hardy for their organizing and conducting this evening's meeting. He expressed appreciation for the opportunity to engage with the Community Advisory Council and, through the CAC, with the broader community.

Dave noted that the upcoming CNSC hearing on OPG's renewal of its site preparation licence will be discussed at the Council meeting on May 18, which will be a joint meeting of the Pickering and Darlington Community Advisory Councils. Also discussed at that meeting will be the decommissioning process at Pickering after the close of commercial operations after 2024.

Topic #7: CNSC News

For selected news items from the CNSC, please see Appendix 2.

Next Meeting

Joint Virtual Session:
Darlington and Pickering
Community Advisory Councils
Tuesday, May 18, 2021
5:30 pm to 7:30 pm