

**Pickering Nuclear Generating Station  
Community Advisory Council  
Pickering Nuclear Information Centre  
Minutes, April 16, 2019  
Highlights**

**Site Update**

Randy Lockwood presented a site update. The operating status of the reactors, employee appreciation of a CAC letter, and the site's very positive record over the past 20 years were among the items mentioned. Council members strongly approved of a site event exposing young people to skilled trades opportunities at OPG.

**Internal Communications at Pickering Nuclear**

Meaghan Lacquaniti talked about internal communications at the site, explaining how OPG keeps employees informed about work priorities, fosters worker-management dialogue and makes workers feel part of a team.

**Community Update**

Analiene St. Aubin presented an update on OPG involvement in community activities. A very successful March Break Madness week, OPG sponsorship and fundraising for Bowl for Kids Sake, a Bring Back the Salmon spring cleanup, and plans for Emergency Preparedness week in May were among the activities mentioned.

**Communications about Groundwater at the Pickering Site**

Raphael McCalla presented an update on how OPG is internalizing CAC advice regarding communications about groundwater at the site. He distributed a one-page draft public information sheet about the station's groundwater program, a key objective of which is to ensure there are no adverse off-site impacts from PNGS groundwater. Council members emphasized the importance of explaining terms and putting numbers in context.

**Update on OPG's Role in Nuclear Emergency Response**

Scott Preston presented an update on OPG's role in the new Provincial Nuclear Emergency Response Program (PNERP) and the implications for the Pickering site. The revised PNERP is aligned more closely with post-Fukushima national and international standards. Council members saw the revised PNERP as part of a continuous improvement story.

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**Pickering CAC:**

John Earley  
Kristin Hall  
Bill Houston  
Greg Lymer  
Pat Mattson  
Sean McCullough  
John Miseresky  
Cody Morrison  
Zachary Moshonas  
Cameron Richardson  
Helen Shamsipour  
Dan Shire  
John Stirrat

Regrets:

Jim Dike  
Donna Fabbro  
Keith Falconer  
Tim Kellar  
Tracy MacCharles  
Ralph Sutton

**Guests:**

Frank Dempsey  
Peter Ottensmeyer

**OPG:**

Meaghan Lacquaniti  
Randy Lockwood  
Raphael McCalla  
Scott Preston  
Art Rob  
Analiese St. Aubin

**PDA:**

Francis Gillis  
John Vincett

## Topic #1: Correspondence

CAC Facilitator John Vincett welcomed Cameron Richardson to the Council. Cameron is a member of the Toronto and Region Conservation Authority (TRCA) and is replacing Mary Gawen, who is on parental leave.

John noted that Volume 17: Issue 1 of NWMO News is now available at <https://www.nwmo.ca/en/More-information/Newsletters>. He also noted that the Nuclear Waste Management Organization (NWMO) have released the latest update to their five-year strategic plan – *Implementing Adaptive Phased Management 2019 to 2023*: <https://www.nwmo.ca/en/More-information/News-and-Activities/2019/03/21/15/55/NWMO-Releases-Five-Year-Strategic-Plan-for-2019-to-2023>.

## Topic #2: Review of Minutes

It was noted that on page 7 of the February minutes, a dollar figure was missing from a Q&A about financing for a Deep Geologic Repository:

- *How is the used fuel DGR to be financed?*  
Nuclear plants in Canada contribute annually to a special fund for this purpose, which is based upon megawatts generated. This is a condition of the licence. The fund is currently valued at \$ x billion.

Otherwise, the CAC minutes from February 19, 2019 were approved.

Following the meeting, Analiese St. Aubin provided that figure: “As at Dec. 31, 2018, OPG has set aside \$9,964M in the Ontario Nuclear Funds Agreement (ONFA) Used Fuel Segregated Fund to pay for the long-term management of the used fuel bundles.”

## Topic #3: Site Update

Vice President Randy Lockwood presented a site update:

- Units 1, 4, 5, and 8 are operating at full power. Unit 6 was operating at full power until the end of last week, when it had to be shut down due to a problem in the heat exchange system. More heat was being produced than the unit was using. The problem was corrected over the weekend and the plant is being gradually returned to full power.
- The planned outage of Unit 7 is expected to continue until May. Staff are making sure that major components of this unit are fit for operation. A new High Pressure Spindle has been installed, and pressure testing of the unit is a licence requirement prior to going into service. Any potential leakages from the system will be identified and

repaired. Because of continuing refinements in design and material usage, the new spindle is expected to increase electrical generation of the unit from 5 to 8 megawatts.

- The CAC letter congratulating employees on the renewal of the Pickering Nuclear operating licence and their continued success in improving plant performance went out to a number of venues. Randy noted that the letter was very well received and expressed sincere thanks to the Council.
- As of April 1, Ken Hartwick is the new CEO of Ontario Power Generation.
- Robin Manley has moved from VP Regulatory Affairs to VP New Nuclear and in that capacity will be coming out to our May meeting to speak about OPG's interests in Small Modular Reactors (SMRs). Just recently, OPG announced a venture with Global Source Power to explore the potential of SMR development.
- Randy showed a video made for employees to celebrate 20 years of operations of Ontario Power Generation.
- OPG is collaborating with Bruce Power to ensure the best possible outcomes from refurbishment projects at the Bruce Power and Darlington stations.
- On March 8, Pickering Nuclear hosted an International Women's Day event, which included plenary meetings and breakout sessions on how to ensure that women are well represented in operations at the site.
- OPG representatives participated in a Canadian Nuclear Association conference on Feb. 26.
- On March 27, Pickering Nuclear hosted The Independent Electricity System Operator (IESO), taking representatives on a tour of the site. OPG learned from them about the electricity market in this province, and gave them a feel for the plant and its plans for the next few years.
- On April 2, Pickering's maintenance group hosted 130 Grade 11 and 12 students, familiarizing them with skilled trade opportunities at OPG. A demonstration of high-tech welding was among the processes presented. A number of partners participated in this event by having booths (colleges, contractors) and having their staff talk about how they had entered this career and how this career had brought a range of interesting challenges. This event was very well received. OPG is now facing a shortage of skilled tradespeople.
- A transportation summit hosted by chambers of commerce and boards of trade in Durham Region was held on Friday, April 5 at Pickering Nuclear and attended by about 100 people. Jeff Yurek, Ontario Transportation Minister, was the keynote speaker.
- Representatives of the Nuclear Safety Review Board, an international body, will visit

Pickering Nuclear on April 29 to assess the safety culture at the site. This team actually reports directly to the OPG Board.

Council members took particular note of the event about skilled trade opportunities at OPG and said such opportunities would be attractive to many young people. It was remarked that a company of OPG's stature "would be a tremendous drawing card."

A question was asked about another opportunity that a Council member was aware of that would bring young people out to look at trades career possibilities. This group is looking for partners. Randy expressed interest in having OPG follow up to see how they might support the venture effectively.

#### **Topic #4: Internal Communications at Pickering Nuclear**

Randy introduced Meaghan Lacquaniti, who heads up the internal communications team at the site.

Meaghan provided an overview of communications with the workforce. She noted that Pickering Nuclear aligns its workforce to the highest standards. Every Friday, the Director of Operations and Maintenance emails staff a list of priorities for the week ahead. As well, Randy emails an update to all staff once a month.

Every two weeks, employees are invited to face-to-face meetings with managers. These opportunities for two-way dialogue are quite well attended. We ensure that each shift is included in these activities. "Facilitative Leadership" is considered to be an important aspect of improving site communications amongst employees and supporting the safety culture.

Electronic kiosks and information videos are provided at employee venues. Also, videos (such as the 20-year anniversary of OPG) are considered to be an important means of communication with employees in an immediate and user-friendly fashion. Social Media is increasingly an important communications vehicle for the company internally as well as externally, and we look for "our stories" to inform employees. A recent feature was the harvesting of Cobalt 60 and the value those materials provide for medical research and clinical therapy.

The internal communications team meets on a weekly basis with senior management to set priorities and also meets with various work teams at the plant. The Human Performance Team and the Safety team are an integral part of that process. As well, the internal team links up with Analiese St. Aubin and her team to support external communications and connects with what is going on at Darlington and the rest of OPG, including good alignment with the messaging from head office.

Periodic rallies and other events are greatly appreciated by employees as a means of keeping up to date with information of importance to meeting site goals and generally appreciating the effectiveness of the employees in carrying out their activities in a safe and efficient manner.

The overall goal of internal communications is to make sure that all employees feel part of the

site team.

Meaghan responded to Council questions:

- *How does the internal communications team involve itself in emergency exercises?*  
Whoever is on call would be involved to make sure employees are informed about the exercise. The internal and external teams communicate with each other during emergency exercises.
- *How do you get employees to contribute to discussion during meetings?*  
We use a number of methods to encourage participation. To take a particularly effective example, Randy will ask: have you heard any rumours about management plans for the site?

## **Topic #5: Community Update**

Analiese St. Aubin, Manager of Corporate Relations and Communications at Pickering Nuclear, presented an update on OPG's involvement in the community:

- Pickering Nuclear hosted March Break Madness from March 11 to 15. This was a very successful week, with a total of 4,200 attending the events.
- On March 26, the Town of Ajax mayor and a number of councillors toured the site, including OPG's innovation centre known as X-Lab.
- On March 27, two teams from Pickering Nuclear participated in this year's Bowl for Kids Sake. In addition to OPG's sponsorship of the event, team members' fundraising efforts and employee donations generated more than \$3500.
- The Fish Diversion System is currently being installed around the plant's intake and is ahead of schedule.
- On April 24, students will be involved in a Bring Back the Salmon spring cleanup at Brock Ridge Park.
- A Take Pride in Pickering tree planting event is planned for Duffin Heights on April 27.
- OPG will be collaborating with Durham Region at events during EP (Emergency Preparedness) week, May 6 to 10. Together, we will host an information booth at Durham Regional Headquarters for the duration of the week.
- Siren testing will take place over two days. On May 6, there will be autodialer calls about the test to approximately 100,000 landline phones within 10 kilometres of the Pickering and Darlington stations. On May 7, sirens will sound for up to one minute

within three kilometres of each station.

- Work on dismantling the wind turbine on the Pickering site is now scheduled for late spring.

## **Topic #6: Communications about Groundwater at the Pickering Site**

Raphael McCalla, Director Environmental Operations Support, presented an update on how OPG is internalizing CAC advice regarding communications about groundwater at the site. He noted that the Council has advised his department to simplify its message.

Raphael noted that there are approximately 300 wells on the site, a limited number of which are monitored each year. The focus is on wells with potential impact on groundwater. Flow direction is also captured.

The average tritium concentration in particular locations is documented. The Environment Department has software that allows access to information about specific wells.

Raphael observed that, when data about wells and flows are posted, the public will want to know what happens once the site closes commercial operations. After that closing, he said, OPG will update this information perhaps once a year. Once OPG starts providing public information on groundwater, the CNSC may require the nuclear industry as a whole to do the same; that is, OPG would be showing leadership.

Raphael distributed a one-page draft public information sheet and presented a map showing groundwater patterns at the site. The draft refers to the station's "mature and robust groundwater program." The program's objectives are to:

- Confirm on-site groundwater flow direction;
- Monitor on-site groundwater quality to ensure timely detection of inadvertent releases to groundwater; and
- Ensure there are no adverse off-site impacts from PNGS groundwater.

The draft indicates that groundwater flow patterns at the site are stable. Tritium trends over time indicate stable or improved environmental performance, with no indications of adverse off-site impacts from PNGS groundwater.

Raphael responded to Council questions and comments:

- *The draft mentions that the 2018 annual average tritium concentration in municipal drinking water samples is minuscule and far below the Ontario Drinking Water Quality Standard of 7,000 becquerels per litre. The public does not know what becquerels are and the figure of 7,000 may seem very high to them.*

We do have information from water supply plants that put that figure in context. The Ontario Drinking Water Quality Standard of 7,000 Bq/L is just that, a standard, not a limit. That said, if a water supply plant finds a spike in tritium concentration, we will

investigate.

- *It's important to make clear the distinction between groundwater at the site and the lake water from which drinking water is drawn.*  
Yes, the groundwater at the site is not moving very fast and is not leaving the site.
- *The statement in the disclaimer that the map and/or data may not be accurate or current disturbs me.*
- *The draft mentions that, at the extreme south side of the site, there is a small groundwater flow component towards the lake. What is the impact of that small flow?*  
That statement refers only to the direction of that small flow; it does not impact drinking water.
- *That point about not impacting drinking water should be specified.*
- *Is information about groundwater at the Darlington site going to be made public?*  
Yes, Darlington will be posting similar information and a map.
- *On the map you showed, the tritium numbers under the reactor are quite high.*  
We could highlight that the values closer to the lake are much less. OPG has made a voluntary commitment that we will never see an impact of 100 Bq/L [in groundwater? in lake water? or drinking water?].
- *Is there a way to show the direction of the flow or to demonstrate how slowly the contaminants are moving through the groundwater—perhaps using animation?*
- *I suggest using colour coding on the map.*  
Yes, we could probably do that.
- *I suggest colour highlighting of the water flow.*  
We would have to think about that. Colour highlighting could make the water flow look scary.
- *You would have to choose the colours carefully. Numbers without context could also alarm.*
- *Is there a way to show that the decay of tritium is slow, and that the flow of groundwater is also slow?*

John Vincett heard the Council saying that the inclusion of a disclaimer may well be disturbing to the general public. The document circulated, that clearly outlined the issue, was understandable to the Council, who have looked at these issues a number of times over the years and have seen many presentations; on the other hand, the general public won't necessarily know what a number of these terms mean, or what tritium is or what a becquerel measures. Perhaps a set of Frequently Asked Questions is needed—or a click through so that

a reader can get a definition on terms that are not well understood. As well, we have heard that numbers on the Internet can cause worry. Perhaps the numbers could be clicked through to contextual information.

Randy recognized the concerns raised by the Council, but said that OPG has made a commitment to communicate information about groundwater at the site. He added that OPG will probably have to re-do any communication piece in a year. “Regardless of what we put out, people will misunderstand,” he said. “But transparency will ultimately triumph” in reassuring the public. And OPG's communications in this area will get better over time.

## **Topic #7: Update on OPG's Role in Provincial Nuclear Emergency Response**

Scott Preston, Senior Manager, Emergency Preparedness, presented an update on OPG's role in the new Provincial Nuclear Emergency Response Program (PNERP) and the implications for the Pickering site (Appendix 1).

He noted that the OPG Emergency Preparedness Department implements and maintains emergency response capability within OPG Nuclear. It maintains OPGN emergency response facilities as well as equipment at off-site facilities, conducts drills and exercises, and liaises with off-site authorities and stakeholders. There are approximately 800 people involved in emergency preparedness activities in various locations.

Scott reviewed the Emergency Preparedness 2018 work program highlights and the anticipated highlights for 2019. He noted that the Five-year Nuclear Oversight program audit, conducted this year, had a very positive outcome. He remarked that OPG likes to keep the emergency preparedness bar moving forward.

The PNERP Master Plan was revised in 2017. The Pickering Implementing Plan was issued in 2018, and OPG was fully compliant by the end of 2018. The revised PNERP is aligned more closely with post-Fukushima national and international standards. Among other revisions was the creation of a 20-kilometre Contingency Planning Zone.

A Canada-wide Emergency Preparedness Week will take place May 6 – 11. The theme in Ontario this year is “Are You Ready?” OPG will be partnering with the Durham Emergency Management Office on communications activities and will take the opportunity to talk to the public about nuclear issues.

Scott responded to Council questions:

- *How will PNERP be implemented outside Durham Region?*  
The province does a lot of the implementation outside Durham
- *Metro Toronto has produced a booklet on nuclear emergency preparedness planning.*

- *You mentioned that the revised PNERP better aligns with post-Fukushima international standards. How is this done?*  
It is primarily around the creation of a 20-kilometre Contingency Planning Zone and terminology changes. The province owns the public protection piece, with OPG providing the information. Regarding public protective action decision making, the revised PNERP has moved from “range” of values to a single value “threshold” to more closely align with international standards.
- *Hospitals are usually operating at 100 percent capacity, so what happens in a public emergency?*  
Hospitals have a Code 77 protocol. We do drills with them, as we did in 2017. If radioactive contamination outside nuclear plant sites occurs, OPG provides equipment and trained responders to hospitals when there is a contaminated casualty.
- *What in general is the evacuation time during a nuclear emergency?*  
The province makes the evacuation order, or shelter-in-place order, or KI use or distribution order. A whole range of different scenarios—weather, rush hour, special events, etc.—affects evacuation time and are included in the analysis. In 2015, a representative evacuation time was 4+ hours; in 2017, it was 4.5 hours. But the full evacuation time represents the time for the last person to exit the zone, not how much time it will take every person to exit.
- *It looks like the revised PNERP is a continuous improvement story versus a whole new plan.*  
Yes, that's correct. The province brought together an international expert panel to provide advice that the province drew on in revising the Plan.

## **Topic #8: CNSC News**

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

**Next Meeting**  
**Tuesday, May 21, 2019**  
**Pickering Nuclear Information Centre**  
**(supper available at 5:30 pm)**