

**Pickering Nuclear Generating Station  
Community Advisory Council  
Pickering Nuclear Information Centre  
Meeting Minutes, April 18, 2017  
Highlights**

**Site Update**

Stephanie Smith presented an update on worker safety and the productivity of the units. Kevin Powers responded to Council questions about press coverage of nuclear power rates and how OPG addresses the issues raised.

**Public Affairs**

Carrie-Anne Atkins presented an update on recent and forthcoming OPG activities in the community. She talked about the March Break Madness Program, the current status of Darlington Refurbishment, annual station performance updates to local municipal councils by Randy Lockwood (Pickering's new Site Vice President), OPG's involvement of local students in the Save the Salmon program, and other activities.

**Waste Management Update**

Kevin Powers presented an update on OPG's nuclear waste management. He talked about licence renewal hearings during April for the Western Waste Management Facility at the Bruce nuclear site and the Pickering Waste Management Facility. He also provided a status report on the Deep Geologic Repository project for low- and intermediate-level waste from OPG-owned nuclear facilities.

**Update on NWMO's Adaptive Phased Management Process**

Jo-Ann Facella presented a progress report on NWMO's implementation of Canada's plan for the long-term management of Canada's used nuclear fuel. She talked about the current status of the multi-year process of site selection for the construction of a deep geological repository for used nuclear fuel. She also talked about technical studies of potential geologic settings for the repository. All of these processes are being carried out in consultation with interested communities and other stakeholders.

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**Pickering CAC:**

Maggie Ballantyne  
John Earley  
Donna Fabbro  
Bill Houston  
Donald Hudson  
Tim Kellar  
Greg Lymer  
Sean McCullough  
Zachary Moshonas  
Helen Shamsipour  
Dan Shire  
Ralph Sutton  
Deborah Wylie

**OPG:**

Carrie-Anne Atkins  
Kevin Powers  
Stephanie Smith

**NWMO:**

Jo-Ann Facella

**PDA:**

Francis Gillis  
John Vincett

Regrets:

Jim Dike  
Keith Falconer  
Dinesh Kumar  
Pat Mattson  
Moe Perera  
Kira Shan

**Topic #1: Introduction and New Reports**

CAC Facilitator John Vincett introduced Sean McCullough, who is replacing Mike Sawchuck as the representative of the Town of Ajax.

He also noted that the Nuclear Waste Management Organization (NWMO) has just released two publications:

- Progress Through Collaboration Triennial Report 2014 to 2016
- Implementing Adaptive Phased Management 2017 to 2021

These reports are available at: <https://www.nwmo.ca/en/Reports>

## Topic #2: Review of Minutes

A Council member noted that, on the last page of the February minutes, bullets referred to "Someone from the University of Ontario Institute of Technology..." and "Someone from the provincial government..." It was suggested that the word "someone" sounded too vague, and it was decided that it should be replaced with "a representative." With this change, the CAC minutes for February 21, 2017 were approved.

## Topic #3: Site Update

Stephanie Smith, Director of Operations and Management at Pickering Nuclear, noted that Site Vice President Randy Lockwood (who has replaced the recently retired Brian McGee) had wanted to attend this evening's meeting, as it would have been his first CAC meeting as Site Vice President. However, he was presenting the site's annual performance update to the Town of Ajax Council this evening.

Stephanie presented a site update:

- It has been 214 days since the last lost time accident occurred at the site. There have been no significant environmental or safety issues since that time.
- Units 1, 4, 6, 7, and 8 are operating at full power. Unit 5 is on a planned outage and will be returned to service around the beginning of June.
- Since the CAC meeting in February, the site has undergone two forced outages of five days each. On March 9, a forced outage of Unit 7 was extended to replace the Electronic Hydraulic Governor (EHG). On March 24, Unit 4 was taken off line to repair a turbine generator field breaker. The generator field breaker's purpose is to trip under fault conditions to minimize any damage to the generator. Both units were safely and efficiently returned to service.

Council members raised questions about press coverage of electricity rates in Ontario, which Kevin Powers, Director, Nuclear Public Affairs, responded to:

- *There has been negative press coverage claiming that OPG is seeking to raise the cost of nuclear power from 7¢ per kilowatt hour to 16.5¢ per kWh.*  
Our rates are set by the Ontario Energy Board (OEB). We have gone to the OEB for a rate increase, but 16.5¢ is not correct. We are asking for 6¢ over the next couple of years.
- *Will OPG be responding to a letter from the Ontario Clean Air Alliance, which has appeared in two editions of the Pickering News Advertiser? The letter claims that nuclear power is not cheaper than water power from Quebec.*  
We have responded to this kind of press coverage over the years. If cheaper power were available from Quebec, we'd be buying it. As well, the supply is not there and

neither is the transmission capacity to deliver it to Ontario population centres. Quebec would need new dams, which would take 30 years to build, and I doubt that the resulting power would be cheaper than what Darlington can offer. A letter has been written to respond to these kinds of charges, which we will share with the Council. Sometimes the paper will print our letter, sometimes they do not.

John Vincett addressed further suggestions from the Council:

- *Put OPG's information on the topic in the CAC minutes, so that the public sees it when the minutes are posted on the OPG website.*  
A presentation to the CAC on how electricity pricing works in the province would bring all the information together in one place and would be captured in the minutes.
- *It might be helpful to have a reporter attending CAC meetings.*  
Meetings are open to the press, and they are certainly aware of that.
- *How does a rate of 12¢ per kWh (the current cost of nuclear power at 7¢ plus an increase of 5¢) tie in with the Liberal Government's plan to reduce electricity rates by 25%?*  
We need to get all the data together in one presentation to answer that question.

## **Topic #4: Public Affairs**

Carrie-Anne Atkins, Manager of Corporate Relations and Communications at Pickering Nuclear, presented an update on recent and forthcoming OPG activities in the community:

- Inclement weather during the March Break Madness program was certainly an issue this year. Attendance was significantly down from last year, especially for outdoor activities. Still, attendance at all programs reached a grand total of more than 2,500. This year's program involved a number of community partners, including:
  - Let's Talk Science
  - Windreach Farm
  - Durham Farm Connections
  - Purple Woods Conservation Area
  - Claremont Conservation Area – TRCA
  - Durham Children's Safety Village
  - The City of Pickering and Municipality of Clarington
  - Ganaraska Region Conservation Authority – GRCA
- The Darlington Refurbishment is now in day 184, on schedule and on budget. The project has safely and successfully islanded Unit 2 from the operating units and containment. During the next phase, the project team will focus on reactor disassembly. This will entail opening the Unit 2 airlocks for the first time since construction of the plant was completed in the 1990s.

- Last week, OPG kicked off a new public awareness campaign about the benefits of the Darlington refurbishment. Called “Inside Darlington,” the campaign will air on television, social media and on-line.
- Last month, Randy Lockwood, Pickering's new Site Vice President, kicked off a round of annual station performance updates to local municipal councils, concluding with a presentation this evening to the Town of Ajax Council.
- On Monday, April 10, the Pickering station hosted the Ontario Minister of Energy at an information session followed by a station tour.
- Students from Bayview Heights spent this morning cleaning up along Duffins Creek as part of the environmental initiative to ensure good habits for the salmon fry that will be released from the Pickering station hatchery in late May.
- Tree planting, litter cleanup and Earth Rangers animal ambassadors will all be part of Earth Day celebrations on Tillings Road in Pickering on April 22. These activities will be hosted by Environmental Stewardship Pickering, OPG, City of Pickering, and Toronto and Region Conservation (TRCA).
- On Sunday, May 7, Durham Steps for Life Walk will be hosted at the Pickering Nuclear Information Centre for the seventh year. Over 300 walkers will come out in support of this fundraiser for the families of workers who have lost their lives in workplace accidents.
- Staff at Pickering and Darlington are currently planning the Tuesdays on the Trail program with community partners.
- The next edition of Neighbours Newsletter will be delivered to homes in June.

A couple of Council members saw an advertisement on Global TV that talked about the economic benefits of the Darlington Refurbishment. They described the ad as very positive. It was noted that the ad was a mix of good graphics and good information.

## **Topic #5: Waste Management Update**

Kevin Powers, Director, Corporate Relations and Communications, presented an update on nuclear waste management and the Deep Geologic Repository (DGR) (Appendix 1).

Kevin noted that the nuclear industry is unique in that it both records and manages its waste. The three principles of nuclear waste management over 40 years have been:

- Stewardship
- Lasting solutions

- Peace of mind

Kevin talked about licence renewal hearings this month for the Western Waste Management Facility (WWMF) at the Bruce nuclear site and the Pickering Waste Management Facility (PWMF). He touched on future plans at each site.

Kevin thanked the CAC for their supportive letter to the CNSC regarding the PWMF. At the hearing, the Commissioners asked questions about the CAC, in which they continue to be interested.

Kevin talked about the DGR, which will safely and permanently store all low- and intermediate-level waste from OPG-owned nuclear facilities, as part of the lasting solutions to nuclear waste management. He provided an update on the DGR regulatory process. He noted that, in 2015, the federal Joint Review Panel concluded that the DGR project should proceed “now rather than later.” In 2016, the federal Minister of Environment and Climate Change asked for three additional reports, which OPG completed in December. A study found that environmental effects are greater at alternative locations for the project, and costs are higher, with no additional benefits in safety to the public or the environment. OPG got 23 technical questions on its reports from the Minister, to which it will respond by the end of May.

As a next step, the Canadian Environmental Assessment Agency (CEAA) will prepare analysis and recommendations for the federal Minister. The Minister's decision on the Environment Assessment for the DGR is expected by the end of 2017. Given additional regulatory and design steps, Kevin said, the earliest completion of the DGR would be 2026, should the licence be granted.

Kevin then talked about nuclear waste management in terms of human performance, environmental stewardship, public safety, public information and engagement, and Indigenous relations.

Kevin responded to Council questions and comments:

- *What sort of technical questions did the Ministry ask regarding OPG's reports about alternative locations for the DGR?*  
They are asking for further clarification regarding what those sites would look like.
- *The public would be more comfortable knowing what is in the waste that goes up to the WWMF.*  
All the waste from the Pickering and Darlington sites goes up to the Bruce, except for used fuel, which is kept on the sites. The waste going to the WWMF is 80 percent low-level and 20 percent intermediate.
- *OPG should consider advising the public of the types of waste being shipped to OPG's proposed DGR. Put it in the Neighbours Newsletter. (A couple of members of the Council were concerned that the member of the general public is not fully aware that only Low to Intermediate waste, not fuel, would be sent to OPG's DGR.)*

- *Yes, a chart showing the types and proportions of waste would be very helpful.*

Reference was made to a recent front page story in the Metroland news discussing the transportation of Highly Enriched Uranium (HEU) through Durham Region. It was unclear to some members of the Council as to where HEU is produced and where it is going to. Some wondered if this was a product of the Pickering and Darlington stations.

It was noted that the transportation of HEU from Chalk River to a centralized U.S. disposal site in Savannah River, Georgia was the result of an international agreement to centralize all of this type of waste in one location.

Further discussion took place about the handling of medical nuclear waste which is generated in a number of locations at medical facilities that practice nuclear medicine.

CAC members noted that it can be very confusing for the public when different kinds of nuclear waste activities are reported in the media, followed by a general condemnation of nuclear energy and materials from those who oppose this form of energy generation. Logically, OPG only responds to the questions relating to their own materials and their transfer and storage, but there is a bigger picture to be addressed.

John Vincett asked if there was a role here for the Canadian Nuclear Association to help the public understand the different aspects of nuclear waste management and how it applies to their situation.

Kevin responded to additional questions and comments:

- *CBC television had a half-hour story on nuclear waste management on W5. Did OPG get any feedback arising from this episode?*  
This episode turned out to be reasonably balanced. The W5 audience is mostly seniors, and there was not much social media reaction to it.
- *The program didn't differentiate levels of nuclear waste, something the public should hear about.*
- *On our visit to the Bruce site three years ago, I noticed they had very useful leaflets on levels of waste. These leaflets would provide useful examples of how to talk about this topic and should also be made available in Durham Region.*

## **Topic #6: Update on NWMO's Adaptive Phased Management Process**

Jo-Ann Facella, Director, Community Well-Being, Assessment and Dialogue, presented a progress update on the NWMO's long-term management of Canada's used nuclear fuel (Appendix 2).

She began with an overview of key points of NWMO progress:

- Publication of the triennial progress report 2014 to 2016.
- Working collaboratively with communities to advance site selection.
- The project will only proceed with the involvement of the interested community, First Nation and Métis communities in the area, and surrounding communities, working in partnership to implement it.
- Drilling of initial boreholes may begin early this summer.

Jo-Ann noted that there has been some evolution in personnel at NWMO, where a very strong team is committed to the Organization's adaptive phased management process. She noted that Laurie Swami, who previously served as Senior Vice President of Decommissioning and Nuclear Waste Management at OPG, was appointed President and CEO of the NWMO in 2016.

### **Status of Site Selection Process**

This is an iterative process, narrowing down the number of communities and areas being considered. There are multiple stages of assessment and dialogue. Jo-Ann said that this is a long process, though the NWMO will be making some very important decisions within the next couple of years.

The NWMO has completed **Step 2** (initial screening) of a nine-step process. This screening involved all 22 communities that indicated interest in the project.

**Step 3, Phase 1**, a preliminary assessment of all the requesting communities (21) and immediately surrounding area that passed initial screenings, is also completed. This assessment has narrowed the process down to nine communities.

**Step 3, Phase 2**, now in progress, is a preliminary assessment of the nine communities with high potential to meet siting requirements. The approximate date for completion of this phase is 2022.

The objective of the Phase 2 assessments of sites is to develop: confidence in the selection of a preferred location in terms of safety for a deep geological repository; confidence that safe, secure and socially acceptable transportation can be developed; and confidence a strong partnership can be developed—with the interested community, First Nation and Métis communities in the area, and surrounding communities.

Jo-Ann talked about NWMO engagement with interested communities and other stakeholders, including engagement on transportation.

### **Technical Studies**

Jo-Ann noted that the approach to the Phase 2 Field Studies varies with the geological setting—crystalline rock in Northern Ontario and sedimentary rock in Southern Ontario. These studies will be planned and implemented in collaboration with the communities involved. The NWMO will review the findings with the communities, then further narrow the study areas to those with the strongest potential. The NWMO will interweave Indigenous knowledge into the

process.

Jo-Ann showed maps of the various areas to be studied.

Jo-Ann noted next steps in the process:

- Continue to advance field studies
- Work to develop a supportive partnership in siting areas involving the interested community, First Nations and Métis communities in the area
- Continue to narrow down the number of study areas through ongoing stock-taking of assessment findings
- Advance development of planning framework for transportation

Jo-Ann responded to Council questions and comments:

- *What is the purpose of the boreholes that you mentioned?*  
We are going to drill at several sites so we can see their geologic character. We need to drill near to where the repository could be sited if it were implemented in the area.
- *Why is the site selection process taking so long?*  
The pace has a lot to do with the pace and manner that people in a given area wish to proceed. This process requires a thorough discussion in the community to determine information requirements and to provide time for consensus to evolve.
- *Regarding transportation safety, you're going to have to convince all the municipalities along the route.*  
We've seen to this point that people in various locations generally have the same set of questions, which would indicate that we don't have to go to every community along the route today to begin to understand what will be important to people and begin to plan for it. With nine communities currently under consideration for siting, we don't know who we are going to be talking to about transportation in the end. But we do have a strong sense of the questions that are on the mind of Canadians on this matter.
- *Has there been any exploration regarding fault lines and earthquakes?*  
That question was really an important part of the desktop assessment conducted early on when communities expressed initial interest. Putting used fuel underground in a repository will provide better protection from surface events such as earthquakes. (Carrie-Anne said OPG would be happy to provide further information about earthquake issues at the next meeting.)
- *In addition to the cost of constructing the repository itself, are other infrastructure costs—for example a four-lane highway—covered by the funds set aside from the Hydro bill for waste management?*  
Nuclear producers' money set aside for long-term waste management includes ensuring safe transportation, although a four-lane highway may not be required. Part of the next phases of work will address what kinds of infrastructural developments will be necessary.

- *How will you manage any impacts on provincial parks?*  
There are exclusion criteria regarding provincial parks. None of our study areas are in provincial parks.
- *What kind of reaction are you anticipating from Americans living near the Great Lakes?*  
There has been some learning across the industry from discussions about low- and intermediate-level waste with those Americans. There is time in the Adaptive Phased Management siting process for people to continue to learn about the safe long-term management of used fuel.
- *I'm more and more impressed with the thoroughness of your work. How many people are at NWMO carrying out these activities?*  
There are 135 people working at the NWMO plus we are interacting with universities in Canada and the U.S. and with experts in the international community.

John thanked Jo-Ann for her very informative update.

### **Topic #7: CNSC News**

For selected news items from the CNSC, please see Appendix 3.

**Next Meeting**  
**Tuesday, May 16, 2017, 6 pm**  
**Pickering Nuclear Information Centre**  
**(supper available at 5:30 pm)**