

**Pickering Nuclear Generating Station
Community Advisory Council
Pickering Nuclear Information Centre
Minutes, June 18, 2019
Highlights**

Site Update

Randy Lockwood presented an update on the productivity of the units (all running at full power), site reliability being the best it has been in the history of the plant, a recent Pickering Nuclear fundraising event entitled “Discover the Power of Innovation,” and other items.

Community Update

Analièse St. Aubin presented an update on OPG involvement in community activities. An employee volunteer program that helps seniors with yard work at their homes, involving students in Bring Back the Salmon activities, plans for the Tuesdays on the Trail program, and other activities.

The New OPG Brand

Adam McClare talked about the new brand, which is designed to better relate to and engage OPG's communities. The centre of the new brand is a redesigned OPG.com site that has been updated, simplified to be intuitive for users and accessible to all. There will also be a new focus on social media.

Plant Enhancements that Support Pickering's Continued Operation

Frank Guglielmi provided an overview of three key programs in place that support Pickering's life extension: Fitness for Service (FFS), Periodic Safety Review (PSR) and Equipment Reliability Enhancements (ER). CAC members were reassured that Pickering is fit for service today and has key programs in place to continue to monitor component health to 2024.

**Pickering Nuclear Generating Station
Community Advisory Council
Pickering Nuclear Information Centre
Minutes, June 18, 2019**

Pickering CAC:

John Earley
Donna Fabbro
Kristin Hall
Natalie Harder
Bill Houston
Tim Kellar
Julie Kim
Tracy MacCharles
Pat Mattson
Sean McCullough
John Miseresky
Cody Morrison
Peter Ottensmeyer
John Stirrat
Ralph Sutton

Regrets:

Jim Dike
Frank Dempsey
Keith Falconer
Greg Lymer
Zachary Moshonas
Helen Shamsipour
Dan Shire

Guest:

John Simpson

OPG:

Frank Guglielmi
Randy Lockwood
Adam McClare
Art Rob
Analiese St. Aubin

PDA:

Eileen Clark
Francis Gillis
Pam Wheaton

Regrets:

John Vincett

Topic #1: Review of Minutes

Francis Gillis facilitated this meeting on behalf of John Vincett.

In reviewing the May minutes, it was noted that in the Q&A session under Topic #6 (Update on New Nuclear Development), only a small percentage of the fuel stored in the uranium bundles is actually used, the rest being stored as “waste.” A wrong percentage was given. The actual percentage is 0.75 percent.

With this correction, the CAC minutes for May 21, 2019 were approved.

Topic #2: Site Update

Senior Vice President Randy Lockwood introduced Frank Guglielmi who would be presenting later in the evening. Randy noted that Frank had retired three times but was asked to return each time, given his valuable service.

Frank Guglielmi spoke briefly to his broad experience with the nuclear industry, having worked in senior positions at the OPG site, Bruce Nuclear and Atlanta.

Randy gave an update on matters specific to Pickering Nuclear:

- All units are at full power.
- With respect to Fuel Handling OPG is looking for additional support to ensure fuel compliance through its emphasis on the Continuous Improvement Plan for operations and maintenance. The site reliability is the best it has been in the history of the plant, providing value back to the ratepayers.
- OPG has been in the news recently with the announcement of its closure timeline of 2024. There are various drivers at play: construction of a new OPG building which will result in moving people from University Ave. (Toronto), Brock Rd. (Pickering), and Kipling Ave.(Toronto). Putting all staff together will result in cost effectiveness

through reduced leasing costs. Also, the move speaks to the collaboration focus within OPG as all departments come together (e.g. corporate, R&D).

- Unit 7 is back up and running after 110 days of planned outage, the most successful result ever, with zero injuries and 94 percent completed on time.
- Cobalt 60 Presentation: Randy showed some footage on this topic.
 - A Council member offered a bit of history about the use of cobalt: Harold Johns (considered the father of medical physics in Canada) developed the “cobalt bomb” in 1951 for the treatment of cancer. Cobalt works without electricity so it is used in many countries today.
- As mentioned at the May meeting, a Pickering Nuclear pipe was recently exposed on the beach due to water levels and wind and wave action. This pipe fed outflow cooling water to a pond in a fish farm operation that used to operate in Frenchman’s Bay. Since the closure of the fish farm, that pipe has been inactive. OPG is working to repair the visible pipe near the boardwalk through testing for gas, and ultimately chopping it up and moving it off the beach. Once the permits are acquired, this will take about four weeks.
 - In response to a Council question as to where the pipe is located, Randy stated it is at the lagoon at the bottom of Liverpool Road.
- Randy spoke about the Saturday, June 15 event put on by Pickering Nuclear, “Discover the Power of Innovation,” involving community and staff, which raised funds for Autism Canada. With the charity campaign already at \$55,000 this year, for Grandview Kids, Big Brother and Big Sisters, and Herizon House, the plan is to make this an annual event.
- At the CAC meeting in September, Jeff Lehman will talk about the WANO (World Association of Nuclear Operators) evaluation of Pickering Nuclear and what the reviewers will be looking at.

A Council member noted that, with the timing of the new headquarters coinciding with the refurbishment, the new roads will come in handy, an example of “good planning.” Randy didn’t think he could take credit for the timing but acknowledged it is a good fit.

Topic #3: Community Update

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

- Operation Clean Sweep, which usually involves a smaller group in the spring, were able to help 12 seniors with yard work on June 1.
- Bring Back the Salmon Program Wrap-up - Students from St. Elizabeth Seton Catholic School joined OPG, Ontario Federation of Anglers and Hunters (OFAH), and Toronto Region Conservation Authority (TRCA) to release salmon fry at Duffins Creek in the Greenwood Conservation Area.
 - In response to a Council question regarding whether there have been any salmon spawning this year, Annalise said she would check.
- The annual Pickering Public Library Summer Reading Club Launch Party will be held at the Pickering Farmers' Market on July 2. This free family event promotes the importance of environmental conservation and stewardship.
- Tuesdays on the Trail will begin July 9 and will be offered on July 16, 23, 30 and August 13 and 20. The initiative has been modified to offer morning programs only due to higher participation at that time. OPG works with a number of community partners on this program, which involves kids aged 6 – 12. The OPG.com website and Newsletter on line provide more information.
- Neighbours Newsletter – To Be Delivered to mailboxes in mid June.

Topic #4: The New OPG Brand – Community Engagement Strategies

Adam McClare, Senior Manager, Brand and Corporate Projects, talked about OPG's communications tools (Appendix 1). He provided an overview of the new OPG website, which features a new look and feel. The website reflects a new brand, which has been updated to reflect more accurately who Ontario Power Generation is and to better relate to and engage with OPG's communities. Adam offered the following comments:

- With regard to public perception, OPG wants to shift its image from being solely a “generator of electricity” to a “clean energy leader.”

- The redesigned OPG.com site has been updated, simplified to be intuitive and will be fully accessible to all, including those who are visually impaired. New community home pages are located in a centralized area.
- With a new approach to community advertising, OPG will focus on highly targeted and cost effective social media and use the redesigned opg.com as the hub of all content and as a means to communicate with communities.
- Ultimately, a member of the public will be able to request all public documents through the site.
- The new site has been designed to be accessible, however if a member of the public would like a regulatory document (PDF) that isn't currently accessible, they will be able to request one through the site.

Adam responded to Council questions and comments:

- *Accessibility for readers with visual disabilities and building this into the website are really important.*
The site was designed to meet accessibility standards. We are currently working on bringing the many regulatory PDF documents into conformity with accessibility standards.
- *I recommend that accessibility options be indicated as soon as one enters the site and that it be made clear that these options are still under development.*
We do flag that information.
- *It's important that the site talk about carbon free energy sources and, under that heading, talk about hydro and nuclear energy. People don't look up "nuclear" as a way to explore carbon free energy sources. Also, it's important to tell the story about carbon free energy more clearly. People looking at nuclear can't necessarily understand the numbers because they are so large. For example, the contribution of carbon free sources to total energy output could be shown in a pie chart or by percentages.*
Nuclear is mentioned throughout the site as a driver of clean energy. And yes, we can take a look at the site to see how we can make our stats and figures more tangible.
- *The opening menu doesn't stand out at first glance at the site.*
The website is designed and organized for mobile devices as a priority, so a menu on the screen would make it very crowded. But the icon for the menu in the upper left hand corner stands out.
- *Why are there two search buttons on the website?*
One is a browser.

- *It is difficult to find the CAC on the website.*
- *There is a need to balance the number of photos of males versus females to reflect diversity.*
Yes, we are looking into this.

Adam acknowledged that these were all timely comments as the site is being refined post launch and will continuously be improved and updated.

Communication with Communities

Adam noted that, traditionally, communication with communities has relied on newspapers and other “traditional” media channels. OPG is now moving away from print to focus on highly targeted and cost effective social and digital advertising channels to increase engagement with its communities.

- *Is OPG including Indigenous communities in their communications?*
Yes, there is a full communications plan for Indigenous communities.
- *The public generally does not understand that OPG is the generator of electricity, and that individual suppliers provide the electricity to the consumer. Also, there is confusion in the public domain about the distribution rates and who decides on these rates, given that it is the Independent Electricity System Operator (IESO) that makes the decision regarding suppliers.*
This information is included in the website to address the confusion. And OPG is working with other associations to educate the public on these issues.
- *Does the site note the support that OPG gives to UOIT and Durham College?*
Although the site does not have a dedicated section for this content, this information is can be found throughout in the form of articles and stories.
- *Do you mention the nuclear careers that UOIT and Durham College courses can lead to?*
We direct site users to OPG career opportunities.
- *There is an important story to tell, linking education and job opportunities.*
We work with various groups, post stories about employment opportunities and partnerships, and utilize a jobs link.
- *I found the website fascinating and wondered if there is someone who oversees the work site definitions. For example, the site refers to the Darlington refurbishment creating an average of 14,000 jobs per year until 2055. I'm wondering if this was perhaps tasks, not jobs.*

No, that is the average number of jobs created directly and indirectly by Darlington refurbishment and continued operation. There are actually about half of million tasks involved. The website is also administered by a Webmaster who ensures consistency and quality of content.

- *People think nuclear is very expensive; yet, when you look at cost per unit, nuclear is the second lowest.*
There is a section in the website on low-cost power that talks about the lower cost and reliability of nuclear energy in Ontario.
- *You could have “mouse over” pop-ups in the menu that would provide quick summaries for the main themes on the site.*
“Mouse over” sections are frowned on due to accessibility issues they raise with mobile devices.
- *Do you measure hits on the various sections of the site? Which are the most popular sections?*
It varies, but the number of visits and time spent on the site have increased overall. There are about 65,000 visits per month. As a result, OPG is constantly analyzing the content and restructuring to respond to how people are viewing the site. Accordingly, we will be expanding the more popular sections and reducing the less viewed parts.

Adam responded to Council questions and comments:

- *Accessibility for readers with visual disabilities and building this into the website are really important.*
We are working on bringing the website into conformity with accessibility standards.
- *I recommend that accessibility options be indicated as soon as one enters the site and that it be made clear that these options are still under development.*
We do flag that information.
- *It's important that the site talk about carbon free energy sources and, under that heading, talk about hydro and nuclear energy. People don't look up “nuclear” as a way to explore carbon free energy sources. Also, it's important to tell the story about carbon free energy more clearly. People looking at nuclear can't necessarily understand the numbers because they are so large. For example, the contribution of carbon free sources to total energy output could be shown in a pie chart or by percentages.*
Yes, we can take a look at the site with those suggestions in mind.
- *The opening menu doesn't stand out at first glance at the site.*

The website is designed and organized for mobile devices as a priority, so a menu on the screen would make it very crowded. But the icon for the menu in the upper left hand corner stands out.

- *Why are there two search buttons on the website?*
One is a browser.
- *It is difficult to find the CAC on the website.*
- *There is a need to balance the number of photos of males versus females to reflect diversity.*
Yes, we are looking into this.

Adam acknowledged that these were all timely comments as the site is being finalized.

Communication with Communities

Adam noted that, traditionally, communication with communities has relied on newspapers, using geo-targeted campaigns and media targeting videos. OPG is now moving away from print to focus on highly targeted and cost effective social and digital advertising channels to increase engagement with its communities.

- *Is OPG including Indigenous communities in their communications?*
Yes, there is a full communications plan for Indigenous communities.
- *The public generally does not understand that OPG is the generator of electricity, and that individual suppliers provide the electricity to the consumer. Also, there is confusion in the public domain about the distribution rates and who decides on these rates, given that it is the Independent Electricity System Operator (IESO) that makes the decision regarding suppliers.*
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No, that is the average number of jobs created directly and indirectly by Darlington refurbishment and continued operation. There are actually about half of million tasks involved.
- *People think nuclear is very expensive; yet, when you look at cost per unit, nuclear is the second lowest.*
There is a section in the website on low-cost power that talks about the lower cost and reliability of nuclear energy in Ontario.
- *You could have "mouse over" pop-ups in the menu that would provide quick summaries for the main themes on the site.*
"Mouse over" sections are frowned on due to accessibility issues they raise with mobile devices.
- *Do you measure hits on the various sections of the site? Which are the most popular sections?*
It varies, but the number of visits and time spent on the site have increased overall. There are about 15,000 visits per month. As a result, OPG is constantly analyzing the content and restructuring to respond to how people are viewing the site. Accordingly, we will be expanding the more popular sections and reducing the less viewed parts.

Topic #5: Plant Enhancements that Support Pickering's Continued Operation

Frank Guglielmi, Vice President, Fleet Operations and Maintenance, provided an overview of three key programs in place that support Pickering's life extension: "Fitness for Service" (FFS), Periodic Safety Review (PSR) and Equipment Reliability Enhancements (ER) (Appendix 2).

Key points:

- Pickering is fit for service today and has key programs in place to continue to monitor component health to 2024.
- In comparison to modern codes and standards, Pickering continues to be safe to operate and, with strategic modifications, its safety standards will improve to meet new plant design levels.
- Along with normal maintenance, additional equipment enhancements will continue to improve Pickering's safety reliability and overall performance.

Frank responded to Council questions:

- *How will Pickering address the needs of young employees on the Last Day + one? The mechanical elements of the plant will take care of themselves, but how do you deal with the people?*
I would like to come back and address that issue at a future meeting—how do we keep staff committed.
- *How would Pickering deal with something unforeseen that occurs, for example, 30 days prior to closing.*
There will come a point where it doesn't make sense to spend any more money on the plant, but preventive maintenance should mean that such events do not happen. A smaller item such as a pump would just not be replaced.
- *Are all the Fitness for Service activities related to just the reactors?*
Activities relate to the whole plant, though of course the reactors are the most important. Pickering looks at broader items through its environmental monitoring.
- *When did the new safety goals for the site come into play?*
(Randy said it was probably 10 years ago.)

Additional remarks from Frank and Randy:

- Integrated Implementation Plan (IIP) work (arising from the Periodic Safety Review) is being done now; when completed, the plant will meet new standards.
- Randy noted that Pickering has developed a way to modify components in order to significantly improve them, as it couldn't rebuild the plant.
- Frank listed the equipment reliability enhancements which will be fully implemented in July.
- Randy noted that, while a completion date for the air curtain is likely a year away, once developed and if successful, it will be used elsewhere.
- Frank noted that Ministry of Natural Resources approvals are required.
- Tritium targets are at the lowest levels this year.
- An emergency generator is being upgraded
- The graphs regarding maintenance indicate the status of plant safety enhancements.
- Pickering is becoming a world class operation.

Further Council questions:

- *Regarding the corrective maintenance backlog, I note that until 2017 Pickering didn't separate critical and noncritical tasks. But why are there still critical components on the list.*

Priorities are set and all of the backlog will come to zero ultimately. We can't do everything at once, so the list of non-critical tasks will be reduced to zero later. To use a car analogy, brakes would be critical while the radio would be non-critical.

With regard to the Equipment Reliability Index (ERI), Frank noted that the roll-up index is now 83/100, the highest it has been since the early days of the plant.

- *It's a concern that so much improvement was needed in the early 90s. And it looks like the plant was not as reliable in 2013 to 2015 as it is now.* By investing in and fixing the plant in recent years, Pickering has driven up the standard of reliability and safety. The investments have made the plant easier to run. The plant was always safe, but non-critical improvements were lacking.
- *I assume that, once a decision to extend the life of Pickering was made, there was a need to invest more to keep things running smoothly.* That's correct. The Board sought additional funds to drive the improvements. We made a commitment that we were not going to milk the plant. The focus is on investing in the plant and people to the last day of the plant. If we had cut back, people wouldn't have stayed engaged. And down the road, it will be easier to make the case for new nuclear build if Pickering and Darlington are running at top safety and best capacity.
- *What are the Equipment Reliability Index targets based on?* They are based on upgrades, but it is more about driving efficiencies as targets will continue into the future. (Randy added that it is about shooting for "industry best" in every category (e.g. backlog clearance, reliability). "We have always invested in the plant," he said. "We've got to prioritize goals and motivate staff.")
- *Are there any component investments required for beyond 2024?* Yes, we will still have used fuel to store safely and continue to invest in monitoring equipment on site.
- *Why have Pickering Units 1 and 4 been included in the life extension, given that they are the oldest units on site?* That decision was based on assessments done in 2016. The cores of Units 1 and 4, which were refurbished, are actually newer than those of the other four units.
- *Given all the experience of Pickering staff in running the plant, how much of that knowledge can be transferred to other plants?* That huge experience will be transferable to Bruce, Darlington, any new nuclear build and to plants using other energy sources. We have invested in people so that they can carry on their careers at other plants.

- *I note the impressive progress made by Pickering staff. Direction from senior managers has been critical to this success.*
(Randy thanked the Council member for that remark. “It’s a team sport,” he observed. “We are aiming to put the industry back on top. A 97 percent participation rate in a safety survey filled out this year—a rate unheard of in industry—speaks to staff commitment.”)
- *The team is composed of all parts of the organization—corporate culture, values, etc. OPG has focused on changing its corporate culture to achieve this.*
(Randy noted that the staff have played a big role in developing a strategic initiative looking to 2025. “Regular updates from senior management keep staff engaged,” he said. “We have to address their questions as we move forward and expect to grow the company.”)

Frank committed to come back to the Council to discuss how OPG is working to keep Pickering employees engaged and committed to the last day of commercial operations.

Francis thanked Council members for their high attendance record over the past year and their excellent questions, feedback and advice to OPG.

Topic #6: CNSC News

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

Next Meeting
Tuesday, September 17, 2019
Pickering Nuclear Information Centre
(Plant tour (optional) and meeting;
schedule to be announced)