

**Pickering Nuclear Generating Station
Community Advisory Council
Pickering Nuclear Information Centre
Minutes, January 15, 2019
Highlights**

Site Update

Randy Lockwood talked about the operating status of the six units at the plant, reports on plant productivity and safety performance in 2018, and Pickering Nuclear plans for 2019 and beyond.

Maintenance at Pickering Nuclear

David Rogers talked about the scope and challenges of maintenance at the site. About half the staff at Pickering are involved in plant maintenance, in both housekeeping and technical maintenance. The unemployment rate for maintenance trades, for example boiler makers, is virtually zero, making it a challenge to hire needed staff. David also talked about an industry peer review of Pickering that took place in December.

Public and Community Affairs

Analièse St. Aubin presented an update on OPG involvement in community activities. Employee charitable donations, visits to the site by outside organizations, Pickering Nuclear as a sponsor of the 2019 Durham Parasport Games, Pickering environmental education programs and other activities were mentioned.

Report on CAC Activities in 2018

John Vincett reviewed the key themes and meeting topics for the Council in 2018. A major focus was Council involvement in the CNSC hearing for the PNGS licence extension. Other key themes were the absolute importance of safety in operations and solid environmental performance.

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Pickering CAC:

John Earley
Keith Falconer
Mary Gawen
Kristin Hall
Tim Kellar
Greg Lymer
Tracy MacCharles
Pat Mattson
Zachary Moshonas
Dan Shire
John Stirrat
Ralph Sutton
Anna-lisa Tersigni
Deborah Wylie

Guests:

Frank Dempsey
Peter Ottensmeyer

OPG:

Analiese St. Aubin
Randy Lockwood
Dave Rogers

PDA:

Francis Gillis
John Vincett

Regrets:

Jim Dike
Donna Fabbro
Bill Houston
Sean McCullough
Moe Perera
Helen Shamsipour

Topic #1: Site Update

Senior Vice President Randy Lockwood presented a site update:

- All six units are operating at full power. Unit 8 was brought back on line on Dec. 23. Unit 7 will go on a planned outage at the start of February. This will be a long outage. Work will be done to enable Unit 7 to provide additional megawatts through the installation of new high pressure turbine spindles.
- There have been several organizational changes at the site. Stephanie Smith, Director of Operations and Maintenance, will be on loan to the World Association of Nuclear Operators (WANO) in Atlanta, Georgia, for six months. Richard Geofroy will fill her

position while she is away. Glenn Pringle, who managed the Pickering Waste Management Facility for a number of years, retired in December.

- Labour relations at Pickering have recently been in the news. Staff at the station have been very professional at doing their jobs as union-management bargaining was going on. The issue is now in arbitration.
- OPG received from the CNSC on Dec. 21 a detailed record of their decision to renew Pickering Nuclear's operating licence. OPG will present a comprehensive mid-term update on its licensed activities at Pickering by 2023. As part of the licensing conditions set out by the CNSC, a periodic safety review is conducted every 10 years at all Canadian nuclear power plants. A PNGS safety review was submitted to the CNSC on Mar.28, 2018. Link to the CNSC press release: <https://www.canada.ca/en/nuclear-safety-commission/news/2019/01/cnsc-issues-the-detailed-record-of-decision-for-the-renewal-of-ontario-power-generations-nuclear-power-reactor-operating-licence-for-the-pickering-.html>
- A recent article in the National Post and Ottawa Citizen reported that an employee at Pickering pushed the wrong button that stalled an in-service computer, which triggered the shutdown of a reactor. There was no risk to human health or the environment. This event actually occurred in June, but was not reported in the press until December. The individual who pushed the wrong button went through a remedial program.

Randy responded to Council questions:

- *Did you modify that computer to query the operator before he or she pushes the shutdown button?*
No. These are very simple computers used at all Canadian nuclear power plants. Simplicity is paramount for these computers.
- *How long did it take to bring the shutdown reactor back up?*
This event occurred during reactor start-up, when the unit was operating at low power. So it lengthened the start-up time somewhat. If the unit had been operating at full power, it would have taken up to 48 hours to restart it.
- *It's safer for the reactor to just stop rather than have the computer ask if the operator really wants to shut it down.*
I agree.
- *Is accidental shutdown a frequent occurrence?*
No, and that is as a result of extensive operator training. It's not a safety but a productivity issue. Ultimately, I'm responsible for accidental shutdowns.

Randy continued the site update:

- The Pickering shutdown at the end of 2024 will significantly cut OPG income, so it's

important that this change be planned for.

- Reportable injuries at Pickering are significantly under target; i.e., there were even less injuries than the reduction target OPG had set for itself. Also below target were radiation exposures and environmental impacts of tritium in the air.
- The price per kilowatt hour for electricity produced by Pickering decreased due to the large volume sold.
- Outage performance has improved over the last two years. The equipment reliability index is at the highest point in Pickering's history.
- PNGS received a Very Satisfactory report from the CNSC for the third year in a row.

Randy thanked CAC for its involvement in the CNSC hearing on the renewal of Pickering's licence. He noted that OPG benefited from CAC feedback on public communications regarding the licence renewal.

Randy then talked about Pickering Nuclear plans for 2019 and beyond:

- The strategy for the Pickering nuclear fleet is focused on productivity, cost reductions and an innovative culture. The aim for the next three years is achieving the best performance in Pickering's history. The last day of operations in 2024 will be the station's best day.
- Pickering's top three station priorities remain unchanged for 2019:
 - Teamwork target is a year-end generation of 22.15 TWh.
 - Human Performance target is no more than two Event-Free Day Resets.
 - Fix the Plant target is shifting to Deficient Non-Critical (DN) Backlog of 124 work orders per unit.
 - Safety, reliability, cost effectiveness and competitiveness underline each of these priorities.
- Some key targets and milestones for 2019:
 - PNGS sets 2,500 tasks per week. The target is to meet or exceed a 95% completion rate. (In 2018, the station achieved a 92% completion rate.)
 - Accelerate Value Based Maintenance.
 - Establish innovation infrastructure.
 - Complete successful WANO Peer Review.
 - Execute a planned outage for each of Units 7 and 5.
- OPG is using on-site technology invention labs at Pickering and Darlington and a streamlined development process to transfer the latest advances to these two sites. This is a good news story. Staff at each of the sites have responded well to the labs.
- Some of the topics that are expected to be discussed at the CAC in 2019 would be:

- An update on the PNERP and its impact upon emergency planning locally;
- An update on the distribution of KI pills to the 50km limit;
- Further work on communicating the groundwater situation at Pickering effectively to the community;
- Developments in SMR technology and the path forward in Ontario;
- Chemistry – asset protection;
- The Performance Improvement Program for the site; and
- An update on Repurposing Pickering

A Council member added that an additional topic should be the impact on the local supply chains of the changes at the Pickering site and the replacement of existing business streams with new business streams.

A CAC member suggested that the Council write a Thank You note to Pickering employees for their accomplishments of the past year, including obtaining the licence renewal and their continued progress in improving plant performance. The Council as a whole strongly supported this idea. It was agreed that PDA would draft a letter for the Council's review.

Randy responded to Council questions:

- *I think it's important at some point to talk about the impact of the station's closing on the supply chain in the community. There is a need to talk to the community about the ramifications of the shutdown and the opportunities.*
We are committed to communicating that to staff and then to the community.
- *Will the City of Pickering face a decline in population after the plant closes? But small nuclear reactors represent an opportunity to keep jobs in Pickering.*
We were given a mandate to operate to the end of 2024. It's not in my authority to advocate things like the manufacture of SMRs at this site. (John Vincett remarked that the CAC could raise this topic with Jeff Lehman when he comes back to update the Council on small modular reactors (SMRs).
- *Local politicians would have a role in this discussion.*
Yes. They would have an important role in a long-term discussion.

Topic #2: Maintenance at Pickering Nuclear

David Rogers, Manager Plant Maintenance, talked about the scope and challenges of maintenance at the site. He noted that about half the staff at Pickering are involved in plant maintenance. David also provides oversight for outside maintenance workers in the electricity and service areas. PNGS has hired about 60 maintenance workers since 2013, and 20 more are to come. The unemployment rate for trades persons is two percent, which is virtually zero.

David said he would like to get more women maintenance workers at Pickering, as this is an

area where the station has not yet achieved a good gender balance.

There are about 860 maintenance staff at Pickering currently dealing with over 74,000 work orders. David also assigns blocks of work to pre-qualified outside contractors, who participate in staff meetings. At any one time these contractors number anywhere from 150 to 300.

Maintenance people focus on performance improvement. Their safety record is good. The turbine group is probably the most experienced in all of Canada. David is proud of his team.

David and his team are bringing new staff up to speed and bringing them into the nuclear culture. He remarked that young people are more safety conscious.

David talked about the difficulty of finding suitably qualified young people for older sounding trades like wheelwrights and boiler makers. In fact, these trades are employing significant amounts of high tech applications, so those with a strong interest in computing could well be attracted to these careers if they understood more about what they entail. OPG used a "Trade Fair" approach to bring in students and show them how these career paths involve a range of skills and offer attractive compensation. This has been successful. OPG has found that pairing young boiler makers with experienced boiler makers has made the older generation more effective through deploying the technology and younger boiler makers, who have the tech skills, more well-rounded as they benefit from the experience of the older workers.

David responded to Council questions:

- *How integrated are your training programs with UOIT?*
A lot of training is done in-house, but we are reaching out to UOIT for help as well. And UOIT is a feeder school for OPG.
- *In-house training at Pickering Nuclear is a good thing. A lot of young people can't afford to attend UOIT.*
We've been very fortunate with new hires in 2016.
- *Are young people interested in careers in maintenance?*
Yes, they are very interested. We tell them that they have much to learn from seasoned veterans, but new hires bring in computer skills. (Randy remarked that "young people can tell us how to do things faster.")

David noted that the site has initiated an electronic work package that is much more efficient than paper. Smart procedures are the next phase in the computer tablets that workers carry around. Randy noted that the site is now looking at developing artificial intelligence for use in maintenance.

- *What is the role of maintenance workers when unplanned outages occur?*
Reactor operators are always the first to address unplanned outages. Maintenance is then involved in planning how to bring the unit back on line. Depending on the areas the caused the forced outage, we schedule the right people to remedy it.

WANO Review

David noted that Pickering underwent a mid-cycle WANO review in December. The ratings were as follows:

- 6 areas were Completely Satisfactory (upgrades well underway)
- 4 areas were On Track (upgrades on track to be resolved by next visit)
- 2 areas were At Risk (upgrade started and requires continued attention)
- 0 areas were Unsatisfactory (upgrade not initiated)

The two At Risk areas were:

- Radiation working practices, and
- Nuclear professionals [David, could you please elaborate.]

Pickering Nuclear will focus on clearing the two At Risk areas during 2019.

Randy noted that Pickering Nuclear has always gotten very good ratings from its industry peers in WANO. But there are always opportunities for continuous improvement and WANO is always raising the bar.

Topic #3: Public and Community Affairs

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

- A gate collection at Pickering raised over \$2,000 for Herizon House and the St. Paul's on the Hill Food Bank. Employees also donated the equivalent of \$5,000 to the Durham Regional Police Service (DRPS) Food and Toy Drive.
- A group of Ontario Legislative interns visited the site in late November. This was a very excited and engaged group of young people.
- A small group of new Nuclear Waste Management Organization (NWMO) employees toured the Pickering Waste Management Facility.
- Pickering Nuclear representatives will be meeting mayors of host communities over the next little while. The station will also be sending invitations to councillors of host municipalities to tour the site.
- Pickering Nuclear will be a gold level sponsor of the 2019 Durham Parasport Games happening throughout the region from Feb. 8 to 10. As well, several groups of employees are participating in the Be the Roar initiative, where groups of people adopt a team and cheer them on from the stands when they compete.

- This year the station will be applying for Wildlife Habitat Council Recertification, a recognition of the biodiversity and conservation education programs at the site. Pickering environmental education programs are featured in OPG's March Break Madness and Tuesdays on the Trail programs.
- This year's Salmon Hatchery program with local schools begins on Jan. 29 with Grade 6 students from St. Elizabeth Seton Catholic School. They will visit the Pickering Information Centre for the launch of the hatchery. The students will track the progress of the eggs and, in late spring, they will release the fry into Duffins Creek.
- Pickering Nuclear runs an Environmental Stewardship program in partnership with the Toronto and Region Conservation Authority (TRCA) and the City of Pickering. This year the partnership will be adding new programs, among them a family garden workshop.
- The March Break Madness and Tuesdays on the Trail programs will continue as they have in past years. More detailed information about plans for March Break Madness this year will be available at the next CAC meeting.

It was suggested that only a tiny percentage of fry released from the Pickering Nuclear salmon hatchery would actually survive. A Council member familiar with the Bring Back the Salmon program noted that there are multiple hatcheries and fish programs beyond the hatcheries, which together would have a meaningful positive impact on the salmon population. As well, there are additional young salmon that are not a part of the schools program released into Lake Ontario feeder streams.

Topic #4: Report on CAC Activities in 2018

Council Facilitator John Vincett presented a report on CAC activities in 2018 (Appendix 1). He reviewed number of meetings and attendance range, key themes and meeting topics. A major focus for 2018 was Council involvement in the CNSC hearing for the PNGS licence extension, which entailed extensive preparation and discussion of Pickering's "Readiness for Service." Other key themes were the absolute importance of safety in operations and solid environmental performance. John also talked about CAC plans for 2019 and invited members to point out any areas where the Council could improve.

In CAC comments on John's report, there was a call for a follow-up discussion on repurposing the site after 2024 .

Regarding the call for young people to join the Council, the addition of high school students was raised. John noted that high schools had nominated students in the past, but they tended to be those most involved in school activities, who found it a challenge to make time for a monthly meeting since Ontario's switch to Grade 12 as the senior year. A CAC member suggested the Durham Youth Council as a possible source for youth representatives.

A CAC member commented that the Council is now much more open and productive in

communicating with the public than it was when focused on the 160 issues.

Topic #5: CNSC News

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

**Next Meeting
Tuesday, February 19, 2019
Pickering Nuclear Information Centre
(supper available at 5:30 pm)**