

## **DURHAM NUCLEAR HEALTH COMMITTEE (DNHC) MINUTES**

### **Location**

Durham Regional Headquarters  
605 Rossland Road E, Whitby

### **Meeting**

In an effort to help mitigate the spread of COVID-19, this DNHC meeting was a virtual meeting so that presenters, members, and guests could present and participate without meeting together in the Regional Council Chambers.

### **Date & Time**

November 18, 2022 at 1:00 PM

### **Members that Participated**

Dr. Robert Kyle, Durham Region Health Department (DRHD) (Chair)  
Lisa Fortuna, DRHD  
Mary-Anne Pietrusiak, DRHD  
Dr. Kirk Atkinson, Ontario Tech University (OTU)  
Phil Dunn, Ministry of the Environment, Conservation and Parks (MECP)  
Raphael McCalla, Ontario Power Generation (OPG)  
Loc Nguyen, OPG  
Deborah Kryhul, Public Member  
Veena Lalman, Public Member  
Susan Ebata, Public Member  
Dr. Barry Neil, Public Member  
Jane Snyder, Public Member  
Dr. David Gorman, Public Member  
Dr. Lubna Nazneen, Alternate Public Member  
Alan Shaddick, Alternate Public Member

### **Presenters & Assistants**

Paulo Correia, DRHD (Secretary)  
Lindsay Hamilton, OPG (Presenter)  
John Burta, Canadian Nuclear Safety Commission (CNSC) (Presenter)  
Dean Hipson, CNSC (Presenter)  
Rebekah Van Hoof, CNSC (Presenter)  
Anjali Pandya, DRHD (Presenter)  
Regional Chair John Henry  
Sara Irvine, OPG  
David Keene, MECP  
Paul MacDonald, CNSC  
Nancy Greencorn, CNSC  
Taline Kalindjian, CNSC  
Lee Casterton, CNSC  
James Kilgour, Durham Emergency Management

Helen Tanevski, DRHD  
Roger Inacio, DRITD

### **Regrets**

Hardev Bains, Public Member  
Deborah Kryhul, Public Member

Dr. Kyle opened the virtual meeting and welcomed everyone.

Land Acknowledgement by Dr. Kyle.

Dr. Kyle mentioned that observers who have questions concerning presentations today, should email or discuss their requests with Paulo Correia, DNHC secretary, at [dnhc@durham.ca](mailto:dnhc@durham.ca).

Paulo Correia will follow-up with each of the presenters after the meeting with the observers' questions off-line to prevent any duplication of emails and responses. Paulo will report back to Dr. Robert Kyle the outcomes of the questions received.

## **1. Approval of Agenda**

The Revised Agenda was adopted.

Added 5.2 Construction of a New Nuclear Research and Teaching Facility announcement by Dr. Kirk Atkinson, Associate Professor and Associate Industrial Research Chair, Faculty of Energy Systems and Nuclear Science, OTU.

## **2. Approval of Minutes**

The Minutes of September 16th, 2022 meeting were adopted as written.

## **3. Correspondence**

**3.1** Dr. Robert Kyle's office received the Minutes of the Joint Pickering Nuclear Generating Station (NGS) and Darlington NGS Community Advisory Council virtual meeting held on June 21, 2022.

**3.2** Dr. Robert Kyle received a report from Paulo Correia, that Observers questions arising from the September 16th DNHC meeting, were answered during the meeting or referred to the appropriate presenter or organization.

**3.3** Dr. Robert Kyle received an OPG announcement on September 29th, regarding the Ontario Government's request for OPG to operate Units 5-8 of Pickering Nuclear Generating Station through September 2026, subject to regulatory approval from Canada's independent nuclear safety authority, the Canadian Nuclear Safety Commission.

**3.4** Dr. Robert Kyle received from OPG on October 6th, an Update on the Darlington New Nuclear Project – Licence to Construct Application from Ashley Maunder on behalf of Dragan Popovic, Senior VP, SMR Execution, OPG received in August, CNSC authorization to commence site preparation licensed activities. OPG will also commence a public engagement campaign as part of the Licence to Construct (LTC) application.

#### **4. Presentations**

**4.1 Progress report by the Canadian Nuclear Safety Commission (CNSC) concerning its Annual Regulatory Oversight Report for Darlington and Pickering Nuclear Power Plants for 2021 (John Burta, Director, Darlington Regulatory Program Division and Dean Hipson, Pickering Site Office Supervisor)**

John Burta, Director, Darlington Regulatory Program Division and Dean Hipson, Pickering Site Office Supervisor, CNSC, presented the Annual Regulatory Oversight Report for Darlington and Pickering Nuclear Power Plants for 2021.

Rebekah Van Hoof, Project Officer, Wastes and Decommissioning Division, CNSC, provided an update on Regulatory Oversight of Pickering and Darlington's Waste Management Facilities (WMF).

Highlights of the presentation included:

- General Safety Performance and Observations for all Nuclear Power Plants (NPPs) and all WMFs
- CNSC Compliance Verification Program
- Security Performance and Observations
- Darlington Nuclear Generating Station – Power Reactor Operating Licence
- Pickering Nuclear Generating Station – Power Reactor Operating Licence
- Potassium Iodide (KI) Pill Working Group
- Darlington WMF
- Pickering WMF
- Waste Management Facilities Highlights
- Interventions on 2021 Nuclear Power Generating Sites Regulatory Oversight Report

J. Burta reviewed general safety and performance observations for NPPs and WMFs. All radiological releases to the environment and doses to people were below regulatory limits. All reportable events were of low safety significance and dealt with appropriately by OPG.

J. Burta stated that the safety of NPPs and WMFs is assessed by CNSC staff. In 2021, CNSC staff conducted a variety of inspections at Darlington and Pickering that provided over 600 findings. The findings were mainly low, negligible or medium safety significant. CNSC also assessed performance through

observations and reviews of various licence submissions. CNSC staff reviewed 105 reported events and over 90 scheduled reports in 2021 for Darlington and Pickering.

J. Burta highlighted that all of the Safety and Control Areas (SCAs) were rated satisfactory with the exception of Security SCA at Darlington and Pickering NPPs, which were rated “Below Expectations” (BE). The details of the SCA that did not meet expectations was captured in an in-camera session with the Commission in CMD 22-M34. The in-camera session provides a face-to-face session with the commission without compromising security.

J. Burta reviewed Darlington Nuclear Generating Station’s licence history. As part of the licence, Integrated Implementation Plans (IIP) must be identified and documented to keep the NPPs current with modern codes and standards. Darlington is currently at 70% completion of their IIP. OPG submitted a Periodic Safety Review (PSR) in Sept. 2020 and accepted in Jan. 2021. Safety Factor Reports will form the basis for the 2025 to 2035 IIP. Darlington also authorized and licenced to produce Molybdenum-99 used for medical diagnostics. OPG is also looking for a licence amendment to produce Cobalt 60.

D. Hipson reviewed Pickering Nuclear Generating Station’s licence history. During 2021, Pickering NGS did not experience any reactor trips, and contributed to the strong performance of the CANDU fleet when compared to the industry target of 0.5 trips per reactor year. CNSC staff were satisfied with the reliability of special safety systems, as all special safety systems for all operating units met their unavailability targets. CNSC staff confirmed that the critical corrective maintenance backlogs at Pickering NGS continued to remain very low. The corrective maintenance and deficient maintenance backlogs, as well as the number of preventive maintenance deferrals are all trending lower, in the positive direction. All IIP commitments have been completed by OPG and closed by the CNSC.

D. Hipson reviewed Pickering’s future licencing extension. On September 29, 2022, the Ontario Government announced its support of the continued operation of Pickering Units 5-8 until September 2026. Authorization is needed from the CNSC to operate beyond December 31st, 2024. Operating beyond 2024 constitutes a change to the licensing basis and will require a decision from the Commission via a public hearing.

D. Hipson provided an update on the KI working group. The working group is working on Phase II and focused on the distribution of KI pills to schools. Additional changes proposed to the Provincial Nuclear Emergency Response Plan. The CNSC KI working group chair will present to the DNHC in January 2023 and provide more details.

R. Van Hoof reviewed the Darlington WMF and its operating licence. At the Darlington WMF, OPG processes and stores dry storage containers containing

used nuclear fuel generated at the Darlington Nuclear Generating Station. OPG also manages and stores intermediate level radioactive waste generated from the refurbishment activities at the Darlington Nuclear Generating Station.

R. Van Hoof reviewed the Pickering WMF and its operating licence. At the Pickering WMF, OPG processes and stores dry storage containers containing used nuclear fuel generated at the Pickering Nuclear Generating Station. OPG also manages and stores intermediate level radioactive waste generated from the refurbishment of the Pickering Nuclear Generating Station. In 2021, CNSC staff reviewed and accepted OPG's commissioning report for storage building 4. OPG was authorized to begin operation of storage building 4 under the authority delegated by the Commission. In 2021, OPG commenced storing dry storage containers in storage building 4.

R. Van Hoof highlighted that both the Pickering and Darlington WMFs were operated by OPG in accordance with operational policies, principles and safety requirements. Worker doses and releases to the environment at WMFs were below regulatory limits and action levels. There were no reported lost-time injuries at any of the WMFs in 2021.

J. Burta provided an update on issues raised through interventions submitted for the Nuclear Power Generating Sites Regulatory Oversight Report (ROR). Key issues highlighted by staff were listed. About half the submissions either expressed objections to the licence renewal or contained certain reservations. The other half were supportive of the continued operation of the NGS.

#### Final Conclusions:

- CNSC staff conducted numerous compliance and verification activities, in accordance with the regulatory, oversight plans and concluded that operations at the Nuclear Power Plants and Waste Management Facilities were conducted safely.
- Communities and the environment were protected.
- Reported doses to workers and public were below regulatory limits.
- All nuclear material in Canada remained in peaceful activities and Canada's international obligations were fulfilled.
- Issues identified during compliance verification activities and events were either addressed or are being addressed by licensees.
- Safety and Control Areas (SCAs) were rated satisfactory for all NPPs and WMFs, with the exception of Security SCA at Darlington and Pickering NPPs.

John Burta, Dean Hipson, Rebekah Van Hoof or their associates will continue to update the DNHC on the Annual Regulatory Oversight Report for Darlington and Pickering Nuclear Power Plants. More information is available on the CNSC website at [nuclearsafety.gc.ca](https://nuclearsafety.gc.ca) or email [cnsc.info.ccsn@cnsc-ccsn.gc.ca](mailto:cnsc.info.ccsn@cnsc-ccsn.gc.ca).

#### **4.2 Update by Durham Region Health Department (DRHD) concerning Cancer at a Glance (Anjali Pandya, Epidemiologist, Health Analytics & Research)**

Anjali Pandya, Epidemiologist, Health Analytics & Research, DRHD, provided a presentation on Cancer Surveillance in Durham Region and the new interactive dashboard – Durham Region Cancer Data Tracker.

Highlights of the presentation included:

- Cancer Surveillance in Durham Region
- Durham Region Cancer Data Tracker
- Measures of Morbidity and Mortality
- Indicators
- Caveats
- We can prevent some types of cancer

A. Pandya stated that cancer surveillance is part of public health programming as outlined in Ontario Public Health Standards (OPHS). Previously Durham published Cancer at a Glance Reports and infographics to look at community trends and comparison to the province. In 2010, changes were made to the Ontario Cancer Registry. The changes make it difficult to make comparisons to past reports.

A. Pandya reviewed highlights of the new Cancer Data Tracker. The data tracker allows for easier comparison of cancer incidence and mortality in Durham Region from 2010 to 2018.

A. Pandya explained the new tracker allows for better analysis of morbidity and mortality in the Region. The tracker displays Standardized Incidence Ratio and Standardized Mortality Ratio.

A. Pandya stated the data tracker using indicators can provide top five cancer cases and cancer deaths. The tracker allows for further analysis by looking at additional variables such as site, age, and annual changes in Durham Region. The cancer sites include different types of cancer such as bladder, brain, liver, lung etc. Reporting includes common cancers and types of cancers associated with radiation association.

A. Pandya reviewed statistics for top 5 cancer stats for diagnosed cases and cancer deaths. Additional graphs used to display and explain cancer incidence and mortality rates in Durham Region.

A. Pandya shared some caveats of the data tracker. The tracker does not include non-melanoma cancers. Rates for younger populations may be suppressed due to low case counts in an effort to maintain patient confidentiality. External factors may be difficult to assess based on limited information.

A. Pandya concluded the presentation by offering tips to prevent some types of cancer. Additional resources of information available in Ontario were reviewed. A live demonstration of the Durham Region Cancer Data Tracker was conducted prior to taking questions.

Questions:

A question was asked about what are the reasons for higher cancer incidence in Durham as compared to Ontario?

Anjali responded to the question. There are many different factors. Thyroid cancer is slightly higher though has seen declining rates in the region. Durham Region doctors are vigilant with testing. There is access to advanced technology that has the capability of detecting pre-clinical tumors. Demographics of the community such as age and other external factors may also provide variability. As the population ages, there is the probability of increased cancer rates.

A question was asked about pediatric cancer rates?

Anjali responded that there are cancer rates for 0 to 14 years of age. Suppression rules due to confidentiality may suppress some info available for analysis.

Dr. Kyle inquired about web aliases. The following aliases are available to access the different data trackers.

[durham.ca/healthstats](http://durham.ca/healthstats) - Health Department Health statistics

[durham.ca/cancerstats](http://durham.ca/cancerstats) - Cancer Data Tracker

[durham.ca/population](http://durham.ca/population) - Population Data Tracker

Anjali Pandya or associates will continue to update the DNHC on its progress with the Cancer Data Tracker. More information is available at [durham.ca/cancerstats](http://durham.ca/cancerstats).

## **5. Communications**

### **5.1 Community Issues at Pickering Nuclear and Darlington Nuclear**

Lindsay Hamilton, Senior Manager, Corporate Relations and Projects, Darlington Nuclear, OPG, provided an update on Community Issues at Pickering and Darlington and the highlights were:

Pickering Nuclear Operational Performance Update:

- Pickering Units 4, 5, 6, 7 and 8, are operating at or near full power, with Unit 1 in a scheduled maintenance outage.

Pickering Vacuum Building Outage (VBO)

- Saturday, Nov 5<sup>th</sup>, the last Pickering Unit was back on the grid, after the 30-day outage.
- OPG completed inspections and testing of the Vacuum Building as part of the operating licence and required safety checks.

Darlington Nuclear Operational Performance Update:

- Darlington Units 2 & 4 are operating at or close to full power. Units 1 & 3 are currently in refurbishment.

### **Project Updates:**

Pickering Operations to 2026 and Pickering Refurbishment Feasibility study:

- On Sept. 29, the Ontario Government requested OPG to operate Units 5-8 of Pickering Nuclear Generating Station through September 2026, subject to regulatory approval from the CNSC.
- Pickering has requested an operating extension to complete the re-assessment required to operate Units 5-8 into 2026.
- The CNSC will conduct a hearing in writing to consider OPG's request to extend the application filing date to operate Pickering beyond Dec. 31, 2024.
- The province has asked OPG to update the refurbishment feasibility study on Pickering Units 5-8. The feasibility study will consider several factors. Results from the study will likely be available late 2023.
- Ministry's news release here: [Ontario Supports Plan to Safely Continue Operating the Pickering Nuclear Generating Station | Ontario Newsroom](#)

Darlington New Nuclear Project (DNNP) - Licence to Construct Application:

- On October 31, the DNNP Licence to Construct application was submitted to the CNSC. The remaining supporting information packages will be submitted to the CNSC in sequence over the course of six months.
- The Licence to Construct process includes opportunities for the public to discuss the application, ask questions, and raise areas of interest. A CNSC public hearing will likely be held in 2024.

Canada Infrastructure Bank (CIB) Announcement – Oct. 25

- Canadian Infrastructure Bank announced a commitment of \$970 million towards Canada's first small modular reactor (SMR).

Nuclear Sustainability Services – Darlington Re-Licensing:

- The Nuclear Sustainability Services – The ten-year waste facility operating licence ends on April 30, 2023.
- In December 2021, OPG submitted its licence renewal application to the CNSC, indicating the intent to renew this licence for another 10-year period.
- The licence renewal application will be open for a CNSC public hearing on either January 25 or 26, 2023.
- Interventions are due by December 5, 2022.
- Information on how to participate will be posted on the CNSC webpage at [www.cnsccsn.gc.ca](http://www.cnsccsn.gc.ca).

### **Other Community Updates:**

- A high school class visited the Pickering Nuclear Information Centre on Oct 5<sup>th</sup>. They were provided with a CANDU 101 presentation and PLC simulator tour.



- On October 7<sup>th</sup>, an Indigenous ceremony was held by elders from Curve Lake and Hiawatha First Nations in advance of the site preparation work for the DNNP.
- On October 18<sup>th</sup>, DNNP Project leaders hosted the Curve Lake First Nation new Chief and Council, as well as economic development committee members from Curve Lake First Nation for an energy literacy/nuclear 101 presentation, followed by a tour of the Nuclear Sustainability Services Facility and of the DN site.
- On Nov. 2<sup>nd</sup>, the Clarington Board of Trade (CBOT) hosted a Student Business Summit at the Darlington Information Centre.

Lindsay posted in the group chat during the meeting: Information for how you can participate in hearings will be posted on the CNSC webpage at [www.cnscccsn.gc](http://www.cnscccsn.gc).

For more information, Lindsay Hamilton, Senior Manager, Corporate Relations and Projects, Corporate Affairs, OPG, can be reached at 905-914-2457 or by e-mail at [lindsay.hamilton@opg.com](mailto:lindsay.hamilton@opg.com).

For more information, Carrie-Anne Atkins, Manager, Corporate Relation, Pickering Nuclear, OPG, can be reached at 416-528-7766 or by e-mail at [carrie-anne.atkins@opg.com](mailto:carrie-anne.atkins@opg.com).

## **5.2 Construction of a New Nuclear Research and Teaching Facility**

Dr. Kirk Atkinson, Associate Professor and Associate Industrial Research Chair, Faculty of Energy Systems and Nuclear Science, OTU, shared an announcement with the DNHC.

- OTU is pursuing the construction of a new nuclear research and teaching facility that would involve nuclear fuel and would require a licence from the CNSC.
- The new facility would allow for more hands-on training, better preparation for the workforce; and to support research, including for the SMR industry.
- The proposal is very early in the design process. The DNHC will be updated when more information is ready to be presented.

## **6. Other Business**

### **6.1 Future Topics for the DNHC to Consider**

Dr. Kyle mentioned the next DNHC meeting is scheduled for January 20, 2023. Theme: Nuclear Emergency Preparedness.

The Draft Agenda will likely include:

- Updates by Emergency Management Office (EMO), concerning its Significant Nuclear Emergency Preparedness Activities in 2022 and its Plans for 2023 in Durham Region (TBC)
- Progress Report by Durham Emergency Management (DEM) concerning its Significant Nuclear Emergency Preparedness Activities in 2022 and its Plans for 2023 (James Kilgour, Director, Durham Emergency Management (DEM) and Jessica Eng, Deputy Director, DEM)
- Progress Report by Ontario Power Generation (OPG) concerning its Significant Nuclear Emergency Preparedness Activities in 2022 and its Plans for 2023 in Durham Region (Stan Whatmough, Section Manager, Programs, Enterprise Emergency Management, OPG)
- Progress Report by Canadian Nuclear Safety Commission (CNSC) concerning its 'Potassium Iodide Pill Working Group' (Lee Casterton, Senior Regulatory Program Officer, Pickering Regulatory Program Division, CNSC)

## **6.2 Scheduled DNHC Meetings in 2023**

- April 21
- June 16
- September 23
- November 17

## **7. Next Meeting**

### **Location**

### **Virtual Meeting**

Durham Region Headquarters  
605 Rossland Road East, Whitby

### **Date & Time**

January 20, 2023 at 1:00 PM

## **8. Adjournment**

2:12 PM