

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

**Location** Durham Regional Headquarters  
605 Rossland Road East, Whitby  
Meeting Room LL-C

**Date** April 20, 2018

**Time** 1:00 PM

**Host** Durham Region Health Department (DRHD)

### **Members**

Dr. Robert Kyle, DRHD (Chair)  
Ms. Fangli Xie, DRHD  
Mr. Ken Gorman, DRHD  
Mr. Raphael McCalla, Ontario Power Generation (OPG)  
Mr. Loc Nguyen, OPG  
Mr. Phil Dunn, Ontario Ministry of the Environment and Climate Change  
Dr. John Hicks, Public Member  
Dr. Lubna Nazneen, Public Member  
Mr. Marc Landry, Public Member  
Ms. Veena Lalman, Public Member  
Dr. Barry Neil, Public Member

### **Presenters/Observers**

Mr. Brian Devitt (Secretary)  
Ms. Jennifer Knox, OPG (Presenter)  
Mr. Ian Azevedo, OPG (Presenter)  
Mr. Gord Sullivan, OPG (Presenter)  
Mr. Fred Kuntz, OPG  
Ms. Jo-Ann Facella, Nuclear Waste Management Organization (NWMO)  
(Presenter)  
Mr. Michael Borrelli, NWMO  
Ms. Theresa McClenaghan, Canadian Environmental Law Association  
Ms. Janet McNeill, Durham Nuclear Awareness (DNA)  
Ms. Lynn Jacklin, DNA  
Ms. Gail Cockburn, DNA  
Ms. Renee Cotton, DNA  
Ms. Lydia Skirko, Whitby Resident  
Ms. Christine Bilas, Oshawa Resident  
Mr. Garry Cubitt, CAO, Durham Region  
Ms. Christine Drimmie, Office of the Regional Chair and CAO  
Mr. A.J. Kehoe, Durham Region Resident

### **Regrets**

Ms. Mary-Anne Pietrusiak, DRHD  
Ms. Janice Dusek, Public Member  
Mr. Hardev Bains, Public Member  
Dr. David Gorman Public Member  
Dr. Tony Waker, University of Ontario Institute of Technology

Robert Kyle opened the meeting and welcomed everyone.

## **1. Approval of Agenda**

The Revised Agenda was adopted.

## **2. Approval of Minutes**

The Minutes of January 19, 2018 were adopted as written.

Ian Azevedo answered questions on INES, as mentioned in 4.2 of the approved Minutes, stating that INES ratings are used for real events/accidents and are determined by the CNSC.

For the DNHC's benefit and to better understand the severity of the accident scenario of the Pickering exercise, Ian offered his opinion, that the Pickering exercise was approximately an INES 5 or higher level emergency as the scenario was serious enough to exercise all countermeasures.

## **3. Correspondence**

**3.1** Robert Kyle's office received Minutes of the Pickering Nuclear Generating Station (NGS) Community Advisory Council meeting held on November 28, 2017, January 16 and February 20, 2018.

**3.2** Robert Kyle's office received additional information from Adrian Nalasco dated January 23, 2018 as a follow-up to his presentation at the January 19th DNHC meeting concerning the Ontario Ministry of Energy 2017 Long-Term Energy Plan. The two technical issues that Adrian provided additional information to the DNHC were:

- Feasibility Study on Recycling of Used CANDU Fuel report prepared by the Canadian Nuclear Laboratories for the Ministry of Energy.
- Role of the Independent Electricity System Operator in Ontario.

**3.3** Robert Kyle's office received an OPG newsletter concerning the Darlington Refurbishment Project dated January 31, 2018.

**3.4** Robert Kyle's office received an OPG newsletter concerning the Darlington Refurbishment Project dated February 20, 2018.

**3.5** Robert Kyle's office received the response by Brian Devitt to Janet McNeill's request on February 21<sup>st</sup> for the DNHC to provide additional information on INES ratings for the Pickering exercise to better understand the severity of the accident scenario used in the exercise. As a follow-up to Janet's request, arrangements were confirmed on February 23<sup>rd</sup> to have Ian Azevedo, who provided a presentation to the DNHC on January 19<sup>th</sup> concerning the Unified Emergency Exercise, attend the April 20<sup>th</sup> DNHC meeting to answer questions on INES for the Pickering exercise as mentioned in 4.2 of the Draft Minutes for the January 19<sup>th</sup> meeting.

**3.6** Robert Kyle's office received an OPG newsletter concerning the Darlington Refurbishment Project dated March 20, 2018.

#### **4. Presentations**

##### **4.1 Progress report by the Office of the Fire Marshal & Emergency Management (OFMEM) concerning Revisions to the Provincial Nuclear Emergency Response Plan (PNERP)**

Dave Nodwell, Deputy Chief, Planning Program Development, OFMEM, was unable to attend the meeting today.

Dave has offered to attend a future DNHC meeting to provide a presentation on the recent revisions to the PNERP and the Darlington and Pickering NGSs Implementation Plans that need to align with the 2017 PNERP Master Plan.

For more information concerning the 2017 PNERP, Dave Nodwell can be contacted by email at [dave.nodwell@ontario.ca](mailto:dave.nodwell@ontario.ca).

##### **Progress Report by NWMO concerning Implementing Adaptive Phased Management**

Jo-Ann Facella, Director, Community Well-being Assessment & Dialogue, NWMO, provided an update on the long-term management of used nuclear fuel in Canada.

Jo-Ann highlighted the major current activities of NWMO that included:

- Selecting a suitable site to construct an approximated \$24 billion, in 2015 dollars, Deep Geological Repository (DGR) for the safe long-term management of used nuclear fuel.
- Developing community partnerships to support the siting process.
- Ensuring funding is sufficient for the project.
- Applying for licences and permits as required.
- Implementing a safe transportation strategy and plan.
- Designing, constructing, operating and closure of the DGR.

Jo-Ann explained the principles being considered in the design of the DGR that include: isolating the fuel bundle with multiple barriers by using the used fuel container, bentonite clay, stable predictable rock and lateral tunnels approximately 500 metres below the surface of the ground.

Jo-Ann provided a planning estimate of time-lines for construction and operation of the DGR that includes:

- The site selection process will narrow the communities and finally select a host site by 2023.
- Regulatory approvals will be required for the Centre of Expertise by 2024 and the environmental assessment/licence application by 2028.
- Detailed site construction should start in 2024 and a construction licence should be granted in 2032.
- The design and construction of the DGR will begin in 2033 and be completed by 2043.

The Site Selection Process that began in 2010 with 22 interested communities has now been reduced to 5 Ontario communities with preliminary site assessments underway at:

- Ignace
- Manitouwadge
- Hornpayne
- Huron-Kinloss
- South Bruce

The Objectives of the Site Selection Process for the 5 communities will include:

- Safety – Confidence a DGR can be developed with a strong safety case at each location.
- Transportation - Confidence a safe, secure and socially acceptable transportation plan can be developed at each location.
- Partnership – Confidence a strong partnership can be developed with interested host communities including surrounding communities at each location.

Jo-Ann highlighted the recent progress NWMO has made on the Site Selection Process that included:

- Narrowed the focus from 9 communities to 5 communities.
- Drilled first borehole in Ignace and more planned in 2018 and 2019.
- Started partnership discussions in communities.
- Delivered hundreds of learning activities in communities.
- Built components to ensure readiness to manufacture engineered barriers.
- Published NWMO's sixth safety case study.
- Maintained community awareness in the communities with:
  - Newsletters
  - Annual Reports

- Implementation Plans issued every 5 years
- Presentations
- Public Events
- Conferences
- Website
- Social Media

Jo-Ann Facella or her associates will continue to update the DNHC on the progress of NWMO's Implementing Adaptive Phased Management and their Site Selection Process. More information is available by accessing the NWMO website at [nwm.ca](http://nwm.ca).

#### **4.3 Progress Report by OPG concerning its Nuclear Waste Management Program**

Gord Sullivan, Director, Eastern Waste Operations & DGR, OPG, provided a progress report concerning its Nuclear Waste Management (NWM) program.

Gord reviewed the Canadian Nuclear Safety Commission (CNSC)'s Regulatory Oversight of the NWM program that included:

- OPG's radioactive waste management facilities (WMF) received 'Satisfactory' rating by the CNSC in its latest rating for 2016 which means OPG is meeting all regulatory requirements.
- The 'Fully Satisfactory' rating for Darlington and Pickering NGSs means OPG's safety and control measures are 'Highly Effective'.

Gord reviewed OPG's 3 radioactive WMFs that included:

- The Western WMF, located at the Bruce Nuclear Power site, is licensed by CNSC to 2027 to receive low and intermediate-level nuclear waste from the Darlington and Pickering NGSs and all nuclear waste from Bruce Power.
- The Darlington WMF is licensed by the CNSC to 2023 to provide interim storage of high-level used nuclear fuel from the Darlington NGS and intermediate-level nuclear waste from the Darlington Refurbishment Project.
- The Pickering WMF is licensed by the CNSC to 2028 to provide interim storage of high-level used nuclear fuel and intermediate-level refurbishment waste from the Pickering A NGS.

Gord mentioned that workplace safety is a high priority for OPG. The Pickering WMF has reached 23 years, Darlington WMF 10 years and the Western WMF 7 years without a lost-time accident. OPG provides very rigorous tracking of even minor incidents at their WMFs and OPG follows-up on any lessons learned to prevent other similar incidents from occurring.

Gord explained that NWM transports approximately 800 shipments of nuclear waste by road per year and the transportation highlights mentioned were:

- OPG has a safe transportation record over 43 years with approximately 4 million kilometres traveled.

- No accidents have resulted involving any release of radiation or injury to anyone including the driver.
- Drivers receive continuous training involving real-time shipments that are tracked by using GPS and dash cams.
- Nuclear waste packages are designed to withstand normal transport, upset conditions and extreme accidents.

Gord mentioned that the NWM ensures the safe, on-time transportation, processing and storage of components removed from reactors during the Darlington Refurbishment Project. The Darlington WMF has an on-site Retube Waste Storage Building for interim storage of reactor components that are intermediate-level waste. Low-level waste from refurbishment is transported to a near-by licensed facility and later transported to the Western WMF.

Gord provided an update on the proposed DGR at the Bruce Nuclear site adjacent to the Western WMF that included:

- The DGR will provide a lasting solution for disposal of OPG's low & intermediate-level radioactive waste.
- The proposed DGR at the Bruce Nuclear site will be constructed in impermeable rock approximately 680 metres deep.
- In 2015, the Joint Review Panel recommended approval of an environmental assessment and their recommendation stated 'the DGR Project should proceed now rather than later'.
- In August 2017, the federal government requested an updated analysis of the effects on First Nations' physical and cultural heritage aspects resulting from the construction and operation of the proposed DGR.
- OPG is now in a respectful dialogue and engagement with the Saugeen Ojibway Nation and the process will take approximately 2 years.

Gord Sullivan or his associates will provide the DNHC with regular updates concerning OPG's NWM program at the Darlington and Pickering NGSSs. More information is available by accessing the OPG website at [opg.com](http://opg.com).

## **5. Communications**

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

Jennifer Knox, Director, Corporate Relations and Communications, OPG, provided an update on Community Issues at Pickering Nuclear and the highlights were:

- Pickering Units 1, 5, 7 and 8 are operating at or close to full power.
- Pickering Units 4 and 6 are in a planned maintenance outage.
- Pickering is partnering with several community organizations to conduct environmental programs including tree planting, *Bring Back the Salmon Program*, etc.

Analiese St. Aubin, Manager, Corporate Relations and Communications, Pickering Nuclear, OPG, can be reached at (905) 839-1151 extension 7919 or by email at [analiese.staubin@opg.com](mailto:analiese.staubin@opg.com) for more information.

## **5.2 Community Issues at Darlington Nuclear**

Jennifer Knox, Director, Corporate Relations and Communications, OPG, provided an update on the Community Issues at Darlington Nuclear and the highlights were:

- Darlington Units 1 and 4 are operating at close to full power.
- Darlington Unit 2 is undergoing refurbishment.
- Darlington Unit 3 is in a planned maintenance outage.
- Darlington has several community/environmental initiatives involving many students and community partnerships to promote pollinator-friendly gardens and landscapes on site, annual Scout tree planting etc.

Jennifer Knox, Director, Corporate Relations and Communications, Darlington Nuclear, OPG, can be reached at (905) 697-7443 or by email at [jennifer.knox@opg.com](mailto:jennifer.knox@opg.com) for more information.

## **5.3 Corporate Community Issues for OPG**

Jennifer Knox, Director, Corporate Relations and Communications, OPG, provided an update on corporate community issues and the highlights were:

- Pickering and Darlington staff are currently planning and partnering with many community organizations in preparation for their annual *Tuesday's on the Trail Program* which will include educational and environmental programs for families across the Region.
- OPG recently provided operational and project updates at the City of Pickering and the Regional Council meetings.
- April 10, 2018, the Federal Minister of Employment, Workforce Development and Labour along with Electricity Human Resources, Canada, made an announcement at the Darlington Energy Complex concerning their program to enhance the job-readiness of post secondary students across Canada by offering co-op wage subsidies to electricity and renewable energy employers.
- The next edition of the *Neighbours Newsletter* will be delivered to homes in mid-June to coincide with Pickering and Darlington's *Tuesday's on the Trail Program*.

## **6. Other Business**

### **6.1 Topics Inventory Update**

Robert Kyle indicated the Topics Inventory will be revised to include the presentations made today.

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

Robert Kyle indicated the theme of the next DNHC meeting scheduled for June 15, 2018 will be *Progress Reports by OPG* that may include:

- Progress report by OPG concerning the 2017 Results of the Environmental Monitoring Program at Pickering and Darlington NGSs.
- Progress report by OPG concerning the Darlington Refurbishment Project.

## **7. Next Meeting**

**Location** Durham Region Headquarters  
605 Rossland Road East, Whitby  
Meeting Room LL-C

**Date** June 15, 2018

**Time** 12:00 PM Lunch served, 1:00 PM Meeting begins

**Host** DRHD

## **8. Adjournment 3:40 PM.**