Nuclear Energy Canada Inc.

Community Liaison Committee
Meeting Record

Meeting Date: June 28, 2021

BWXT NEC: Natalie Cutler, Director, Communications & Government Relations
Jon Lundy, VP Strategy and Business Services
Ted Richardson, Director, Fuel Operations
Dave Snopek, Director, EHS & Regulatory Affairs
Kathleen Augustin, Communications & Community Relations Specialist

CLC Members: P. Correia, R. Desrochers, P. Feinstein, H. Fleisher, L. Irvine, J. Ker, N. Martin-Burtart, C. McCoy, D. McNee, J. Wickenden, R Church.

Absent: None.

Guest: John Peters, Technical Expert and Lead Environmental Health & Safety Auditor, Arcadis
Doug Chambers, Vice President, Arcadis Canada

Action Items:

Action Item	Responsible	Status
1. Add discussion on safety scenarios (specifically hydrogen tank) to the agenda for a future meeting.	K. Augustin	Open
2. CLC to review BWXT NEC's current website, FAQ and provide feedback and ideas on newsletter content.	CLC Members	Ongoing
3. Share video content and infographics with CLC.	N. Cutler and K. Augustin	Ongoing
4. Have more guest speakers in 2021 - Science Communications Specialist	N. Cutler and K. Augustin	Open
5. Incorporate feedback from 2020 year-end evaluation.	N. Cutler and K. Augustin	Ongoing
6. Review providing information to the local sporting organizations / clubs and retirement / senior homes.	N. Cutler and K. Augustin	Ongoing
7. Review door-do-door approach and plan with CLC.	N. Cutler and K. Augustin	Hold (Covid-19)
8. Discuss CLC feedback on dashboards separately with the CLC member	N. Cutler and K. Augustin	Open
9. BWXT to review providing Indigenous Relations training with CLC	N. Cutler and K. Augustin	Open
10. Discuss security at facility, including police presence	N. Cutler and K. Augustin	Open

Nuclear Energy Canada Inc.

Discussion Notes:

Due to the COVID-19 pandemic, the meeting was held virtually. The meeting began with a roundtable of introductions, overview of the agenda and a safety moment.

Natalie Cutler reviewed the action items from the previous meeting. She noted that BWXT NEC is continuing to review providing information to an expanded target audience and requested CLC members review the nec.bwxt.com website, newsletters, and website FAQ page and provide feedback. She noted that the company plans to review safety scenarios, with a focus on the hydrogen tank at the September meeting. Natalie also shared that BWXT NEC plans to share infographics and video ideas with the CLC and requested CLC members provide feedback for guest speakers to the CLC Co-Chair.

Natalie shared that one CLC member had moved and will no longer participate on the CLC. Natalie then asked the CLC Co-Chair to share updates and feedback collected by the CLC members. The Co-Chair noted that the previously discussed Google Groups idea was not moving forward due to lack of interest by the CLC. A CLC member asked about security at the facility and shared that on occasion, there are sometimes police parked out front. Ted Richardson noted that BWXT NEC has 24-7 security on site who complete facility perimeter checks. He explained that sometimes police will park outside the facility for speed tracking and breaks as there are some external parking spots. Ted reassured the CLC that the police presence is not due to the facility.

Next, Dave Snopek shared the new Environmental Dashboards which have been posted on BWXT NEC's public website at nec.bwxt.com. He noted that this file will be updated throughout the year and includes emissions information for water, stack (air) and boundary (air). Dave shared that each week, the dashboard will show the concentration limit (from our newly issued CNSC licence) and number of action level exceedances. Dave and Jon Lundy mentioned that there are few, if any, licencees who do this extra reporting and that most data from them is shared in their Annual Compliance Reports. Jon noted that BWXT NEC is doing this extra reporting to demonstrate transparency to the public. Dave shared that the water concentration is the amount of mg/L of uranium in the water and that the licence release limit is established in the CNSC licence and any exceedances would be outside the limit allowed for release. Dave shared that the action level is set much lower than the licence release limits and is used to identify early any control issues in the process. If an action level is exceeded then the CNSC would be notified as this would be a reportable event. Dave also shared that BWXT NEC would share this information as a public disclosure on its public website at nec.bwxt.com. A CLC member asked if the releases of water from the facility go to the sewer. Dave noted that the facility doesn't use much water in the process and that most water collected is from laundry and cleaning equipment and floors. Dave noted that as we use water, it has the potential to be contaminated so BWXT NEC collects water in two treatment tanks (one collects and one treats) and water is tested and only released in batches once the test results confirm it meets release requirements and that releases are to sewer. Dave then shared that for stack (air) monitoring that the stacks are sampled continuously and the lowest licence release

limit for all stacks is provided in the dashboard for comparison. The action level is set at 1 ug/m3 and there were no action level exceedances. Dave then shared that boundary (air) monitoring is done at five locations around the fence line as part of defence in depth. Boundary monitoring looks at the ambient air around the facility. Dave shared there is no licence release limit on boundary air but that BWXT NEC included the action level for comparison. A CLC member noted that there is one facility who provides similar extra data (not in real time) and another who reports groundwater results on a public friendly GPS mapping website. Dave thanked the CLC for their comments and noted he would look into this. A CLC member asked how accurate the data reported is in the dashboards. Dave shared that BWXT NEC selected to report to one to two significant figures and that measurements are made up of a number of factors. He noted that the labs who examine the data are independent and qualified, and that the results are very accurate. The CLC member also asked if the data is taken at the same time/day each week. Dave shared that this is generally the case for stack and boundary air and that water tanks are sampled as they become full. A CLC member asked why water only shows 14 weeks of data but the air show more. Dave noted that we are currently waiting on the additional water data from the lab and that BWXT NEC will update the dashboards as new data is made available depending on when information from the lab is ready. A CLC member asked why there was variation in the water data. Dave shared that there is variation, which is to be expected, but that all data points are well below the internal control levels. He noted that chemical processes used to treat the tanks can be affected by a number of things (i.e. soap, materials, other chemicals in the water). A CLC member asked if data is cyclical. Dave shared that it is not typically cyclical and that there might be variation due to a process occurring at the facility (i.e. floor stripping). Dave reminded the CLC that BWXT NEC will not release water into the sewer unless it meets release requirements. A CLC member mentioned that during a community meeting before the March 2020 hearings that neighbours were asking what would happen if you inhaled uranium particles released into the air. Dave shared that this is a good question and that it had been discussed in detail at the hearing. He noted that uranium is not foreign to the body and is all around us (i.e. soil used in gardens contain the same uranium that we use). Dave shared that one particle would have an immeasurably small dose associated. A CLC member provided the following feedback on the dashboards: shared that they were excited by this update and encouraged to see the company is moving in the right direction, shared that there could be more detail added to help readers understand the information presented (more context about the emissions), shared that the format of the file as a PDF is not helpful for organizations that use the data (encouraged to use Excel format), shared that the action levels aren't identified for all sources of emissions and requested that be added, requested the data be disaggregated to understand fluctuations, requested that a clarification be included to note that the sampling are weekly aggregates, shared that it would be helpful to include the date for the week in the week row, shared that a mapping feature would be helpful. Natalie thanked the CLC member for the feedback and noted she would review these comments for consideration.

Dave then introduced John Peters from Arcadis who shared information about safety assessments for the Toronto facility. Before John began, Natalie noted that a discussion on the hydrogen tank would be included in the next meeting and that incidents related to the impacts from the hydrogen

tank would not be included in this presentation from Arcadis. John began by sharing that a safety analysis is a CNSC licencing requirement and is a systematic evaluation of the potential hazards associated with the conduct of a proposed activity or facility, associated potential initiating events, and their likelihood and consequences. He also noted that a safety analysis considers the effectiveness of preventative measures and strategies in reducing the effects of such hazards. Next John explained the basic approach to risk assessments beginning with hazard identification, accident scenario development and then the risk assessment itself which includes frequency analysis, consequence analysis and risk estimation and ranking. Next, John shared quantitative analysis of specific hazard scenarios for uranium. He explained that scenarios are modelled using the Department of Energy methodology which is a structured and accepted way to determine how much airborne material could leave the facility in an accident. He explained that Arcadis used widely accepted limits from Emergency Response Planning Guideline (ERPGs) which are planning tools to help anticipate human adverse effects to the general public caused by chemical exposure and Temporary Emergency Exposure Limits (TEEL) which are used until ERPGs are adopted for chemicals. John stated this is a very conservative process. John then shared a hazard scenarios table with the two most significant events contemplated for the Toronto facility. These events are a large fire and a structural collapse. John noted that all scenarios are below the criteria for shelter and evacuation and would be very unlikely to occur over the lifetime of the facility. Next, John shared that there are many safety systems in place to ensure defence in depth such as facility design (National Fire Code, National Building Code), operational controls (design control, operating procedures, maintenance procedures, monitoring procedures, change control, Systematic Approach to Training), emergency preparedness (emergency plan, emergency drills and training, coordination with local emergency responders) and fire safety systems (fire alarms, sprinkler systems, portable fire extinguishers and specialty fire suppression systems). A CLC member asked about a train derailment carrying chlorine. John noted that the safety assessment looks at the impacts from the facility and from uranium. The CLC member asked if uranium could catch fire if it was mixed with other chemicals. John shared that the primary issue would be release of uranium. He said it can go through oxidization but that wouldn't change the chemistry of uranium. Doug shared that uranium will always stay as uranium. A CLC member asked if climate change is included in the assessment as it is known to increase severe weather. John shared that the assessment is updated every five years and up-to-date weather data is considered and built into the process. A CLC member mentioned that neighbours in Toronto were sent iodine pills in the event of an accident and asked if this was related to BWXT NEC. Doug shared that the iodine pills are for nuclear reactors and used to supersaturate the thyroid. This is not relevant to BWXT NEC's operations. Dave also shared that a nuclear criticality accident is not possible from BWXT NEC because we use natural uranium. John concluded by noting that overall, a wide variety of potential internal and external events were analyzed including severe weather, fire and airplane crash. He shared that significant hazard sources were analyzed including uranium dioxide powder and pellets. John explained that hazards were analyzed and screened, with quantitative analysis performed and that the safety analysis concluded radiological facility risks are all low and there are no scenarios that require evacuation or sheltering of the public due to radiological risk.

Nuclear Energy Canada Inc.

Kathleen Augustin then provided some updates on BWXT NEC's Public Information Program starting by sharing that the summer newsletter had recently been posted on the public website (nec.bwxt.com), mailed to ~6,500 neighbours, emailed to BWXT NEC's contact list and shared on social media. Kathleen also shared that the Toronto newsletter is also mailed and posted online in Portuguese. Kathleen then noted that there have been no public disclosures made since the last CLC meeting and shared that the website is up to date with all public disclosures. Kathleen explained that due to COVID-19 restrictions, the annual community BBQ is not occurring but instead that BWXT NEC will be holding a virtual webinar in the fall. She noted that this is a great opportunity for participants to ask questions and allows for two-way dialogue in a virtual setting. She also shared that attendees can enter for a chance to win a local prize basket and asked the CLC members to provide suggestions for the gift basket to support local businesses. Next Kathleen shared some recent support in the community, noting that some employees have been volunteering at the Bruce Power/Region of Peel Vaccination Hockey Hub. She also shared that BWXT held a Spring Fundraiser across its Canada locations for local food banks and raised $11,400 and provides funding to Western Technical Commercial School through a sponsorship for their First Robotics team and provides two student awards. Kathleen asked CLC members to provide her with any ideas for volunteering and supporting the community.

Natalie then shared with the CLC some concerned citizens and groups in the community to ensure CLC members understand the broad perspectives in the community. Natalie shared that there is a Facebook group called "Stop BWXT's Toronto licence renewal in West End Toronto" and encouraged CLC members to look at the page. Natalie then shared the name of a local activist, Zach Ruiter, noting that he writes for West End Phoenix, Now Magazine, Trent Arthur and shared he was recently featured on Project Save the World Podcast. Natalie shared a group called Ontario Clean Air Alliance and noted there is a change.org petition called Stop BWXT's licence renewal. A CLC member asked if there were any groups in Peterborough. Natalie shared that there is a group called Citizens Against Radioactive Neighbourhoods (CARN) and noted they have a website, Facebook and Twitter accounts. She also shared they held a webinar on June 23. Another CLC member noted there is a group in Toronto called Global Nuclear Awareness.

Next Natalie provided an overview of improvements to BWXT NEC's Public Information Program, sharing that a number of items had been implemented and completed, such as: surveying the community, expanding the Toronto CLC, creating social media profiles, increasing mailing distribution of newsletters and other paper mailings, adding more documentation and monitoring data to the public website, holding the community BBQ and/or virtual events, adding insurance information to the public website, obtaining feedback from CLC on the Terms of Reference, establishing a Co-Chair role on the CLC, establishing an annual CLC evaluation and engaging industry representatives on best practices for a CLC. Natalie shared the following items are ongoing and in progress and some are contingent upon events and the stage of the COVID-19 pandemic: hiring a dedicated Communications Specialist, improving relationships with Indigenous communities, obtaining feedback on a continual or ad hoc basis, engaging with real estate associations, advertising in the community, connect with more Toronto community organizations, schools,

neighbourhoods and condos, involving local schools in safety drills, adding signage to the Toronto facility, discussing recruitment for CLC with CLC members, distributing public friendly emergency materials and developing a media strategy to address topics of concern. Jon noted that BWXT NEC is working on improving Indigenous relations and is currently setting up computer training for employees. He noted if available, BWXT NEC would be open to sharing this training with the CLC to complete. Natalie noted she would look into this.

The meeting terminated. Next meeting date to be scheduled in September, 2021.