

Environmental Stewardship Council (ESC)
MEETING NOTES FOR MEETING #33 (DRAFT UNTIL ACCEPTED)
Thursday, March 23, 2017 – Best Western Pembroke Inn & Conference Centre, Pembroke, ON
List of Participants noted on last page

9:15 - 9:30 AM	Refreshments
9:30 AM Safety brief, Welcome and Introductions Pat Quinn	Pat Quinn welcomed the council and provided a safety briefing. <ul style="list-style-type: none"> ➤ Steve Liblong is retiring from CNL and a replacement of equal expertise will be selected. ➤ Parkline Sportsman Club is dissolving in April 2017 and will be leaving the ESC. ➤ Due to restructuring activities within the Ministry of Natural Resources and Forestry, they will be leaving the ESC. ➤ ESC new member <ul style="list-style-type: none"> ○ Walter Stack will be replacing Robert Kingsbury representing Renfrew County Council ➤ ESC guest observer <ul style="list-style-type: none"> ○ Jean LeClair, CNSC ○ John Osborne, AECL ➤ ESC alternate members <ul style="list-style-type: none"> ○ Ron Desroches, Town of Deep River ○ John Muff, Pembroke Area Field Naturalists ➤ ESC guest speakers <ul style="list-style-type: none"> ○ Jim Buckley, CNL NSDF Project ○ Christine Gallagher, CNL Environmental Protection ○ Dmitry Klokov, CNL Biochemist ○ Meggan Vickard, CNL NPD Closure Project
9:40 – 9:50 AM Review of actions, previous meeting record and new business. John Vincett	John facilitated a round table discussion and introduction of all participants. He inquired if there were any comments regarding the meeting notes. There were none. John then reviewed actions updated since the last meeting in October 2016. ESC Action 150617:2 – ONGOING – Decommissioning & Waste Management will update ESC members on Waste Data Tracking System software implementation. Kurt Kehler is responsible for this action. ESC Action 160616:2 – COMPLETE



	<p>ESC Action 161013:01 – COMPLETE</p> <p>ESC Action 161013:02 – ONGOING – CNL will facilitate a tour of the Harriet Brooks building (350) for the ESC members. Nicole LeBlanc is responsible for this action.</p> <p>ESC Action 161013:03 – COMPLETE</p> <p>ESC Action 161013:04 – COMPLETE</p> <p>ESC Action 161013:05 – CNL to schedule a presentation at a future ESC meeting on DWM future approach to disposition cemented Moly-99 waste. Kurt Kehler is responsible for this action.</p> <p>ESC Action 161013:06 – NPD closure project to provide an update to the ESC on the concrete grout (assumptions, formulation, criteria, quality control and future monitoring). Kurt Kehler is responsible for this action.</p> <p>ESC Action 161013:08 (Revised to combine ESC Action 161013:07) – CNL to present results at a future ESC meeting the valued components from the NSDF and NPD project upon completion of the NPD Closure and NSDF project EIS. George Dolinar is responsible for this action.</p> <p>ESC Action 161013:09 – CNL to present at a future ESC meeting the NSDF Waste Acceptance Criteria (WAC) including definitions and radiation limits. Kurt Kehler is responsible for this action.</p>
<p>9:50 – 10:20 AM</p> <p>CNL Business Update</p> <p>Mark Lesinski</p>	<p>Mark Lesinski – President and CEO at CNL provided the ESC with a business update which included a review of recent CNL Information Bulletins, an introduction of the new S & T mission and the seven priority areas which include vSMR/Advanced Reactors, Alpha Therapies, Hydrogen, Advanced Fuels, Power Reactor Life Extension, Nuclear Forensics, and Cyber Security. He also discussed the CNSC’s 2017 March Record of Decision on the scope of Environmental Assessments for three proposed projects at existing CNL facilities, the NSDF project draft Environmental Impact Statement (EIS) submission to the CNSC, and the CRL site re-licensing public hearing expected in January 2018.</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. What is the process of decommissioning including the transportation of waste if required? 2. It is hard to comprehend the NSDF volume waste percentage, what does the 5% equal? 3. In regards to NSDF, there is a recent article in the Pontiac Journal that is contains incorrect information, are you going to send a letter to the editor to clarify the facts? 4. It was my understanding that that the transportation of radioactive waste in and out of CRL has being going on for many years, can you confirm that that this correct? 5. Is CNL/AECL Port Hope waste being considered for disposal in the NSDF? 6. Recently I read that about a Deep Geological Repository (DGR) consideration at CRL, can you comment on this? 7. There was a recent story on your website on Plutonium 238 use in space batteries, will you partner with Ontario Power Generation in this initiative? 8. Would you consider using the existing hot cells for the work? <p><i>ESC Action 170323:01 – Canadian Nuclear Laboratories will conduct outreach to ensure that regional municipalities are up to date on CRL transportation. Pat Quinn is responsible for this action.</i></p>

	<i>ESC Action 170323:02 – Canadian Nuclear Laboratories will provide an update at a future ESC meeting regarding CNL’s role and progress in the production of plutonium 238 space batteries. Mark Lesinski is responsible for this action.</i>
10:20 – 11:00 AM The Linear No Threshold (LNT) Assumption Dmitry Klokov	Dmitry Klokov – Biologist/Biochemist within the Radiobiology and Health branch at CNL provided a presentation on the Linear No Threshold (LNT) Assumption which included a historical perspective, LNT pros and cons, and AECL/CNL past, present and future research on the LNT model. QUESTIONS: <ol style="list-style-type: none"> 1. How do hospital X-Rays contribute to dose? 2. In future Immune System studies, would you consider low dose radiation as a treatment?
11:00 – 11:15 AM	Bio break
11:15 – 11:45 AM Quarterly Environmental Performance Report Christine Gallagher	Christine Gallagher - Environmental Protection Program Manager within the Environmental Protection Branch (EPB) at CNL presented the Chalk River Laboratories (CRL) Environmental Performance Summary. The overview included updates on the environmental monitoring program, monitoring updates, and results of the Environmental Management System (EMS) internal audit as well as the adverse environmental effects discussed in the NSDF EIS submission. QUESTIONS: <ol style="list-style-type: none"> 1. Is R-22 one of the greenhouse gases that is being considered for phase out as part of The Montreal Protocol on Substances that Deplete the Ozone Layer? <p><i>ESC Action 170323:03 – Mark Lesinski will update the ESC members on the long-term strategy and vision, including infrastructure, of Canadian Nuclear Laboratories. Mark Lesinski is responsible for this action.</i></p>
11:45 – 12:15 PM Decommissioning & Waste Management Update Kurt Kehler	Kurt Kehler – Vice President, Decommissioning and Waste Management at CNL gave an update about decommissioning and waste management activities at Chalk River including integrated waste strategy development, facilities decommissioning, waste management and environmental remediation, fuel package and storage facility and HEU fuels and target residue material. He also provided an update on project communication activities and announced the seven upcoming public information session dates for the NSDF and NPD Closure projects. QUESTIONS: <ol style="list-style-type: none"> 1. Why does Gentilly-1 and Whiteshell Laboratories waste have to come to CRL?



	<ol style="list-style-type: none"> 2. In regards to Port Hope and Port Granby waste, there is confusion with the terms - storage, disposal, and abandonment - can these be clarified? 3. What is the current technology for identifying alpha waste when the containers are shielded? <p><i>ESC Action 170323:04 – Canadian Nuclear Laboratories will provide a presentation at a future ESC meeting to inform and clarify the waste management terms: storage, disposal, and abandonment. Kurt Kehler is responsible for this action.</i></p>
12:15 – 1:15 PM	Lunch
<p>1:15 – 1:45 PM</p> <p>NSDF Project Update</p> <p>Jim Buckley</p>	<p>Jim Buckley – Director, NSDF project at CNL gave an update on the progress of the NSDF Project at CRL. The presentation included a brief overview of the EIS content submitted to the CNSC, NSDF design progress and next steps, inventory and waste acceptance criteria for the NSDF, as well as an update on project schedule and engagement activities.</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. Are there radioactive concentrations limits below where the waste would not need to be disposed via the NSDF; how do you determine the lower limits? 2. What are these levels/numbers for conditional clearance?* 3. Are there going to be two hearings; one on the EIS and one on the licence, or will they be combined? 4. Is the safety analysis report that is due in June encompass just the construction of NSDF or is it the safety analysis for the entire NSDF? 5. Will the treated water from the NSDF waste water treatment plant be released into Perch Creek? 6. Does the NSDF have its own class 3 power system? 7. What will the NSDF look like after 200 – 300 years? 8. What will happen if institutional controls breaks down? 9. How will you forecast raw waste volume and what type of waste would you consider to leave in-situ? 10. Will the CNL integrated waste strategy help clarify this? 11. How will you determine what level of long lived radionuclides goes into the NSDF? 12. Is it correct that the “proven technology” you refer to, has only been proven for 20 years? 13. What about an earthquake scenario? <p>*Clearance level (<i>seuil de libération</i>) - With respect to radioactivity levels, the maximum permissible concentrations of radioactivity in or on materials, equipment and sites to be released from regulatory control (for example, becquerels per gram or per square centimetre, near-contact dose rates). Clearance levels may be expressed as conditional or unconditional, depending on whether the specific pathways of release, or destinations for reuse, recycling and/or disposal are specified.</p> <p>http://nuclearsafety.gc.ca/eng/acts-and-regulations/regulatory-documents/published/html/regdoc3-6/</p>



<p>1:45 – 2:15 PM</p> <p>NPD Closure Project Update</p> <p>Meggan Vickerd</p>	<p>Meggan Vickerd – Manager, NPD Operations at CNL presented to the council an update on the NPD Closure Project. This included content on waste inventory, waste verification, NPD’s safety barriers and preliminary safety case results.</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. Could you put other radioactive vessels into this space? 2. Is your EIS going to clarify that it is unique to be underground in-situ? 3. Has anyone considered a below grade facility for the NSDF? 4. Will you be leaving the NPD stack? 5. How many recipes of grout are you anticipating to use?
<p>2:15 – 2:30 PM</p>	<p>Bio break</p>
<p>2:30 – 3:00 PM</p> <p>ESC Webpage & Discussion</p> <p>Pat Quinn</p>	<p>Pat Quinn – Director, Corporate Communications at CNL facilitated a discussion on the layout of the new ESC webpage on CNL.ca. After review and discussion, approval of the webpage design was agreed upon and once live the webpage link will be emailed to members.</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. Will you archive the outdated agendas and meeting notes? 2. Can we add CRL to the page title to ensure clarity? <p><i>ESC Action 170323:05 – CNL Corporate Communications will send the new ESC webpage link to ESC members upon completion. Nicole LeBlanc is responsible for this action.</i></p>
<p>3:00 – 3:15 PM</p> <p>In the Community</p> <p>Nicole LeBlanc</p>	<p>Nicole LeBlanc provided an update on CNL activities with the public since the last ESC meeting held in October 2016.</p>
<p>3:15 – 3:30 PM</p> <p>Closing</p> <p>John Vincett</p>	<p>John Vincett gave a recap of the meeting and reviewed the actions and reminded council to fill out evaluation forms.</p> <p>Next ESC meeting date – June 22 at Clarion Hotel and Conference Centre, Pembroke, ON</p> <p>There were no comments on the new actions or the meeting recap.</p>

ESC Participants:

Bruce Bigham, Deep River Horticultural Society
James Gibson, Municipalité régionale de comté de Pontiac
Ole Hendrickson, Concerned Citizens of Renfrew County
Meghan Hendry, Garrison Petawawa
Bob MacKenzie, Upper Ottawa Valley Ducks Unlimited
John McKay, Four Seasons Conservancy
Jed Reinwald, Town of Laurentian Hills
Craig Robinson, Old Fort William Cottagers' Association
Theresa Sabourin, Town of Petawawa
Walter Stack, Renfrew County Council

ESC Alternates:

Ron Desrochers, Town of Deep River
John Muff, Pembroke Area Field Naturalists

Canadian Nuclear Laboratories:

Shaun Cotnam, Senior Director, Compliance
Kevin Daniels, Vice President, HSSE
Kurt Kehler, Vice President, Decommissioning and Waste Management
Nicole LeBlanc, Communications Officer, Corporate Communications
Mark Lesinski, President & CEO
Pat Quinn, Director, Corporate Communications
TBD, Director, DWM Science & Technology Transition Advisor
TBD, Environmental Scientist, Environmental Technologies

Invited Observers:

Wasif Islam, Canadian Nuclear Safety Commission (CNSC)
John LeClair, Canadian Nuclear Safety Commission (CNSC)
John Osborne, Atomic Energy of Canada Limited (AECL)

Facilitator:

John Vincett, Public Dialogue Alternatives

Invited Guests:

Jim Buckley, CNL – NSDF Project
Christine Gallagher, CNL – Environmental Protection
Dmitry Klovov, CNL – Radiobiology & Health
Meggan Vickerd, CNL – NPD Closure Project

Absent:

Peter Arbour, Petawawa Research Forest
Meredith Brown, Ottawa Riverkeeper
George Dolinar, Environmental Program Authority
Ron Gervais, City of Pembroke
Ken Hooles, Pembroke Area Field Naturalists
Marc Laurin, Métis Nation of Ontario, North Bay
Joan Loughheed, Town of Deep River
Jim Meness, Algonquins of Pikwakanagan