



**Environmental Stewardship Council (ESC)
MEETING NOTES FOR MEETING #24 (DRAFT UNTIL ACCEPTED)
Thursday, March 27, 2014 - AECL
List of Participants noted on last page**

9:15 – 9:30 AM:	
9:30 AM	Pat Quinn welcomed the council and provided a safety briefing. Welcomed new members; Meghan Hendry from Garrison Petawawa, John McKay from Four Seasons Conservancy and Karen Stokes from the Ministry of Natural Resources.
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. ESC Action 130627:1 – Complete ESC Action 130627:2 – Complete ESC Action 130627:3 – Complete
9:50 – 10:30 AM AECL Business Update Joan Miller	Joan Miller – Vice-President, Decommissioning & Waste Management, provided the ESC with a business update on behalf of Bob Walker, touching upon the following items: CNSC meetings/hearings, restructuring and NRU's upcoming scheduled extended shutdown. QUESTIONS: 1. Is there any word on the number of organizations showing interest in the bidding process of AECL? 2. In respect to readings of radiation dose above set levels; do you have an idea of the number of these that are reported each year?



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<p>10:30 - 11:00 AM</p> <p>Quarterly Environmental Performance Report</p> <p>Christine Gallagher</p>	<p>Christine Gallagher - the Environmental Protection Manager within the Environmental Protection Branch (EPB) at AECL gave the quarterly environmental performance report. Christine discussed the overview of the program, environmental monitoring and an update on current activities including content to close ESC Action 130627:1 (radiation monitoring levels at NPD).</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. In regards to the plume of radioactive material moving towards the Ottawa River; after many years will it continue to increase? 2. How many decades will NRX's Strontium 90 continue to contaminate the Ottawa River? 3. Has any thought been given to use the permeable barrier technology that is already being used at AECL for the NRX plume? 4. Will the Environmental Risk Assessment include all the AECL plumes and will a prioritization be implemented? <ul style="list-style-type: none"> o Who will prioritize them and will ESC members have access to the information? 5. What are the top 3 environmental risks at CRL? <p>ACTION: 140327:1 – A summary of the Environmental Risk Assessment will be presented to the ESC members in the Fall of 2014; summary will include a prioritization of the risks and their risk level. Joan Miller and George Dolinar are responsible for this action.</p> <p>ACTION: 140327:2 – An update on the NRX Strontium 90 plume and an explanation as to why the permeable barrier technology is not recommended at this time. George Dolinar is responsible for this action.</p>
<p>11:00 – 11:15 AM : Bio break</p>	
<p>11:15 – 12:00 PM</p> <p>Radioecology – Effects of Tritium in Fish</p> <p>Marilyne Stuart</p>	<p>Marilyne Stuart – a Radiation Biochemist within the Environmental Technologies Branch at AECL gave a presentation on Radioecology: Effects of tritium in fish. AECL's expertise in the study of tritium prompted a seven year collaboration with French based Institut de Radioprotection et de Surete Nucleaire (IRSN) to establish a set of tools for biological effect monitoring where radiological contamination may exist. Marilyne provided information on year one of the studies conducted with fathead minnows.</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. In respect to the fathead minnow's organs; do you suspect with more time exposure - the more tritium the organs will accumulate? 2. Can you comment on the timeline of only 60 days of testing; how can you determine lifetime exposure? 3. Over the seven year study, do you change testing cycles or do they remain the same? <p>ACTION: 140327:3 – Determine a logical timeframe for an update on the radioecology – effects of tritium in fish study to the ESC members. Nicole LeBlanc and George Dolinar are responsible for this action.</p>



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12:00 – 1:00 PM	Lunch
<p>1:00 – 1:45 PM</p> <p>Update on Decommissioning and Waste Management</p> <p>Joan Miller</p>	<p>Joan Miller gave an update about decommissioning and waste management activities at Chalk River. She noted the Nuclear Environmental Stewardship Strategic Outcome and the Nuclear Environmental Stewardship Programs, and provided details for the current projects that fall under her purview. These projects include the following: Site Feasibility Study for the Geologic Waste Management Facility (GWMF), Stored Liquid Waste Cementation (SLWC), South Swamp Ground Water Treatment System and NRX Stack Duct Decommissioning. Joan also provided a summary of CRL waste for 2013 and an update on Prototype Reactor relicensing. She introduced the Canadian Nuclear Safety Commissions' (CNSC) new repatriation feature on their website, introducing new interactive modules.</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. In regards to the timeframe of final waste disposal; how long could you keep storing low-intermediate level waste at CRL and how long will you monitor stored waste? 2. In regards to the south swamp plume; how deep did you have to go down? <ul style="list-style-type: none"> o What materials are in the barrier; how many barriers did you use? 3. Are pressure tubes high level waste? 4. Why is recycled metal only reused in the nuclear industry; is it because it is not clean? <p>ACTION: 140327:4 - Send ESC members the link to the CNSC's website new interactive module on the safe transportation of HEU. Nicole LeBlanc is responsible for this action.</p>
1:45 – 2:00 PM	Bio break
<p>2:00 - 2:45 PM</p> <p>Radioactive Iodine Mitigation via Adsorber Ring</p> <p>Malcolm Clough</p>	<p>Malcolm Clough – a Mechanical Engineer with the Mechanical Equipment Development Branch at AECL gave a presentation on the AECL development of the “adsorber ring”, a ring that reduces iodine gas emissions from tile holes. Malcolm provided an overview on design, testing as well as emission improvements once the rings were fitted over new tile holes. A U.S. Provisional Patent Application has been filed for AECL’s “adsorber ring.”</p> <p>QUESTIONS:</p> <ol style="list-style-type: none"> 1. Did you use standard design gaskets? 2. Are the rings removed after 90 days? <p>NOTE: Slide 11 of presentation reads; <i>I-131 emissions from tile holes is the largest single emission at CRL on an ongoing basis.</i> The statement should read; <i>I-131 emissions from the tile holes are the largest emission of I-131 at CRL.</i></p>



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2:45 – 3:00 PM AECL in the Community Nicole LeBlanc	Nicole LeBlanc – Public Affairs Officer at AECL gave an update on how AECL has been interacting with the public since the last meeting in October 2013. Topics included United Way Campaign, Ottawa Valley Tourist Association (OVTA) visit to CRL, Cool Science Saturday at the Canada Science & Technology Museum, Let’s Talk Energy Week, Canada Science & Technology Museum video series, Pandora’s Promise movie showing to the community and the upcoming Petawawa SHOWCASE. QUESTIONS: N/A
3:00 – 3:15 PM Closing John Vincett	John Vincett gave a recap of the meeting and reviewed the actions. Reminded council to fill out evaluation forms and reminded members of next ESC meeting date. Next ESC meeting – 2014 June 26 at Best Western Pembroke Inn There were no comments on the new actions or about the recap of the meeting.

**ESC Participants:**

Bruce Biggam, Deep River Horticultural Society
Meredith Brown, Ottawa Riverkeeper
Ron Gervais, City of Pembroke
Audrey Green, Renfrew County Council
Ole Hendrickson, Concerned Citizens of Renfrew County
Meghan Hendry, Garrison Petawawa
Bob MacKenzie, Upper Ottawa Valley Ducks Unlimited
John McKay, Four Seasons Conservancy
Dick Rabishaw, Town of Laurentian Hills
Craig Robinson, Old Fort William Cottagers' Association
Theresa Sabourin, Councillor, Town of Petawawa
Karen Stokes, Ontario Ministry of Natural Resources, Pembroke

ESC Alternates:**AECL:**

Shaun Cotnam, Senior Director, Compliance
George Dolinar, Environmental Program Authority
Nicole LeBlanc, Public Affairs Officer, Corporate Communications
Steve Liblong, Director, Waste Management & Environmental
Restoration
Mitch MacKay, Communications Officer, NLLP
Joan Miller, Vice President Decommissioning and Waste
Management
Pat Quinn, Director, Corporate Communications
Kathy Smith, General Manager, HSSE

Invited Observers:

Wasif Islam, Canadian Nuclear Safety Commission

Facilitator:

John Vincett, Public Dialogue Alternatives

Invited Guests:

Malcolm Clough, AECL
Christine Gallagher, Section Head, Environmental Protection –
AECL
Marilyne Stuart, AECL

Absent:

Peter Arbour, Petawawa Research Forest
Christian Carrier, Director, CRL Compliance and Licensing Division,
Canadian Nuclear Safety Commission
James Gibson, Municipalité régionale de comté de Pontiac
Steve Gutzman, Parkline Sportsmen Club
Ken Hooles, Pembroke Area Field Naturalists
Marc Laurin, Métis Nation of Ontario, North Bay
David Lee, Environmental Scientist, Environmental Technologies
Jim Meness, Councillor, Algonquins of Pikwakanagan
David Thompson, Town of Deep River
Bob Walker, President & CEO