



**Supplementary Information
Oral presentation**

**Presentation from
Christian Renault**

In the Matter of the

Canadian Nuclear Laboratories

Application for the renewal of the Nuclear
Research and Test Establishment Operating
Licence for the Chalk River Laboratories

Commission Public Hearing

January 23-25, 2018

**Renseignements supplémentaires
Exposé oral**

**Présentation de
Christian Renault**

À l'égard des

Les Laboratoires Nucléaires Canadiens

Demande de renouvellement du permis
d'exploitation d'établissement de recherche
et d'essais nucléaires pour les Laboratoires
de Chalk River

Audience publique de la Commission

23-25 janvier 2018

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CNL license application and biodiversity

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Release from radionuclides

- P. 104 in the licence application, CNL will continue to comply with regulations
- In attempts to cleanup and remediate to inappropriate waste., there are dangers of leakages.
- Sometimes disturbing waste and soils polute more than controlling what is coming out
- The NSDF site might just do that, bringing more radionuclides than is released through leakage, making matters worse.
- Amphibians (frogs, Salamaders, Toads) are particularly vunerable to all types of pollutions

Clearcutting

- There is a separate application for a near surface dump, on a hillside, near Perch Lake, and prime wetland at the bottom
- Any leak will be accumulated to Perch Lake, which empties itself in the Ottawa River
- This scares people downriver, because there is no buffer zone for this dumpsite.
- Giving a 10 year licence is too long before reassessments; citizens want to be informed, and the Government should supervise the process, not a private, money oriented company

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- Similarly, the results of the ecological risk assessment show that there is negligible and declining risk to Ottawa River biota from the historical sediment contamination. Multiple lines of evidence point to little or no risk, including comprehensive measurements of contaminant concentrations in sediment and biota, measured and modelled contaminant biomagnification, laboratory sediment toxicity tests, and in-river benthic population and community assessments.
- In conclusion, all lines of evaluation indicate that the potential human health and ecological risks from the presence of contaminated Ottawa River sediments are, and will continue to be, very low and acceptable. The project and its risk assessments concluded that there is no need to implement measures to reduce human health and ecological risks. It was determined that monitored natural attenuation is a viable and preferable remediation option. Routine monitoring and surveillance program was recommended and developed to confirm that the favourable conditions continue to exist.
- The results of the completed Ottawa Riverbed Remediation project human health risk assessment and ecological risk assessment will be included and summarized in the next update of the CRL ERA at the end of 2018.

Radiation doses to wildlife

- Chimney Swifts are aerial foragers, and roost in a few chimneys in CRL, including the Mo-99 processing facility's chimney, which is still used for other purposes
- Chimney Swifts are a protected species, and the licence application does not mention how it deals with this embarrassing problem, especially in the spring and early fall
- Chimney Swifts are also found in Rolphton, Chalk River; largest roost in Canada; their protection could be used for political agenda
- There are solutions but no mentions

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- In 2014, Chimney Swifts were estimated to have received 86 mGy for the period of April 28 to September 10 for the reported release of
- $5.9\text{E}14$ Bq MeV (with a lower complement of Xe-133) during this period. These dose estimates translate to an ERA Risk Quotient of less than one. The results of this field study will be incorporated into the next update of the ERA. CNL will be continuing the Chimney Swift roost count on a weekly basis at the MPF stack for another five years.
- Five years, and then what?

Radiation doses to Wildlife

- Barn Swallows
- Turtles on site... CRL and some parts of Renfrew County are rare breeding grounds to some Turtle species
- Amphibians

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- **10.1.8 Turtles**

- There are four turtle species on the site that are listed “Species at Risk” in Canada: Blanding’s Turtle, Snapping Turtle, Northern Map Turtle and the Eastern Musk Turtle (Figure 37). Species at Risk are listed under Schedule 1 of the Species at Risk Act.
- **Figure 37 Turtles on the Species at Risk list located at CRL.**
- Some of these species prefer to remain in one wetland or lake their entire lives, while others require a number of wetlands and habitat types (marshes, swamps, bogs, creeks, etc.) to accommodate seasonal migrations.
- CNL has a good understanding of the distribution and movement pattern of these turtle species on the CRL property. This understanding is supporting the development of mitigation measures during project review and conservation initiatives throughout the site.

No guarantee of protection

- CRL has the privilege of having several species at risk (birds, amphibians, Flying Squirrels, ...)
- with this privilege come responsibilities
- There is no plan in this 10-year licence application, blatantly missing
- AECL has long told the public it is pro-environment, CNL and CRL are not publicly announcing it, they should
- The Canadian Government does help finance protection, CNL should promote itself in environmental protection

Initiatives in CRL

- Bat houses
- Marsh Monitoring Program
- Night Bird monitoring
- ... should be made evident before delivering such a long term licence
- There should be a promise to keep all species at risk well protected during the next licence and mandate
- These initiatives have been taken, but should be kept up, and explicitly written.