August 16, 2017

From: Gordon Lorimer

To: Nicole Frigault, Environmental Assessment Specialist
Canadian Nuclear Safety Commission

By email: cnsc.ea-ee.ccsn@canada.ca

Proposed Chalk River Nuclear Waste Facility

CEAA Reference number: 80122

Good afternoon Ms Frigault

Attached please find my letter to you dated August 16, 2017.

Regards

Gordon Lorimer
OAA, FRAIC

Hobin Architecture Incorporated

August 16, 2017

Ms Nicole Frigault, Environmental Assessment Specialist
Canadian Nuclear Safety Commission
P. O. Box 1046 Station B
280 Slater Street
Ottawa, Ontario
K1P 5S9

Dear Ms Frigault

Re: Proposed Near Surface Disposal Facility (NSDF), Chalk River Laboratories

We are cottage owners on l'Isle-aux-Allumettes and are writing to you to express our concerns regarding the proposed nuclear waste disposal facility planned for the Chalk River site. On July 15, 2017 my wife and I attended an information session at the Pontiac Hotel that was sponsored by the Fort William Cottagers Association. As an architect and partner with Hobin Architecture in Ottawa, I appreciated the effort and planning that went into both that event and the development of the proposal. I suspect that the process is similar in many ways to what our firm goes through in the preparation of a design solution for a complex urban development. I believe that the engineers and scientists involved have all the best intentions at heart.

That being said, while many of my questions were answered I still have the following serious concerns:

1. **The location of the proposed disposal site** may well be the best spot within the current boundaries of the Chalk River property as indicated during the presentation. However I believe that the scope of the site selection process was too narrow. The Chalk River parcel is but one relatively small piece of the extensive Federal land holding in the area. At just one kilometer from the Ottawa River, the proposed location is too close to potential future flood paths. While I agree that a local disposal site is needed, the site selection process should study the greater land holding and seek a site 10 to 20 kilometers remote from the river.
2. **Our rapidly changing climate** makes data based on past storm events unreliable. What we now think of as a 100 year storm, may well become a

twenty year storm in the next decade. Peak storm events will likely be far more severe than what can be projected from historical data. Consequently a nuclear storage facility sited so close to the river may well be in the 100 year flood plain within its expected service life. This concern impacts both the siting of the facility and the robustness of its construction.

3. In my experience, when things go wrong **it is not the engineering that fails, but rather the combination of many small errors in construction and ongoing operation.** The contamination of drinking water at Walkerton Ontario came about because of operational failings rather than design. After years of event free operation, budgets may gradually erode, staff training may not be kept up or supervision may become lax. I believe that the design solution needs to build in greater safe guards to protect us from these evolving risk factors.
4. **A local solution to a local problem** seems logical to me. Something must be done soon to mitigate the aging contaminated infrastructure and temporary storage provisions now on site. Trucking this material to a distant location exposes the public to unacceptable risks. Consequently we support a local installation but strongly oppose the plan to ship nuclear wastes from distant sites to this facility.
5. **Time is of the essence**. While there will be many who will be concerned about a facility serving for the long term, I believe that the current proposal will likely prove to be an interim solution at best. I suspect that within the next 50 years new technologies will yield better solutions and society will demand greater safe guards. The proposed facility may be replaced several times as circumstances change. While I have suggested that the site selection process scope be broadened, I believe that action must be taken in the very near future even if it is an interim one. The status quo is not an option.

In conclusion based on the above concerns I urge you to reconsider the current nuclear waste storage strategy for the Chalk River site.

Regards

Signature redacted

Gordon and Karen Lorimer
Signature redacted