

August 16, 2017

From: Lynn Jones

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

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

Comments on the EIS for the Near Surface Disposal Facility - CEAA Reference number: 80122

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Dear Ms. Frigault

Thank you for the opportunity to comment on the Environmental Impact Statement for the Near Surface Disposal Facility. My comments are contained in the attached pdf document, which contains hyperlinks to references and recommended reading. I would appreciate it if, when you convert my submission into a document for the registry, you would use a conversion process that will retain the hyperlinks for ease of viewing references by interested readers.

As stated in the conclusion to my comments, I believe that given the many serious deficiencies in the EIS for the NSDF, the CNSC should call a halt to the EA process. The deficiencies are so numerous, the misuse of terminology by the proponent so misleading, and the proposed technology so obviously inappropriate and out of alignment with international standards and guidance, that any further work on the EIS is not warranted.

Yours sincerely ,
Lynn Jones, M.H.Sc.

Comments on the Environmental Impact Statement (EIS) for the Near Surface Disposal Project (Registry Number 80122)

from Lynn Jones, Ottawa ON

Introduction

The EIS for the NSDF describes a proposed facility for permanent disposal of 1,000,000 cubic meters of mostly federally-owned, radioactive wastes in a surface mound, close to the Ottawa River on land owned by the federal government. Much of the waste is “legacy waste” dating back to the first Cold War when Canada was actively involved in producing and supplying plutonium for American nuclear weapons. As such, much of the waste is contaminated with highly toxic and very long-lived radioactive materials that the International Atomic Energy Agency recommends be disposed of several tens of metres underground in stable rock away from surface and ground water. This proposal for permanent disposal of radioactive waste, is the first of its kind in Canada. The proponent of this project is the multinational consortium of companies that won the bid to manage Canada’s federally-owned nuclear facilities and wastes in a privatization initiative by the former conservative government in 2015.

There are many serious deficiencies in the EIS for the NSDF

Many substantive critiques of the EIS on the public registry identify a large number of serious deficiencies in the Environmental Impact Statement for the “Near Surface” Disposal Facility. It is clear that many scientists, technical experts and concerned Canadians have spent thousands of hours reading the EIS and reference documents and highlighting deficiencies. Much of this work was unpaid; Canadians owe a debt of gratitude for the contributions of Gilles Provost and Ginette Charbonneau of Ralliement Contre la Pollution Radioactive, Ole Hendrickson, researcher for Concerned Citizens of Renfrew County and Area, Johanna Echlin of the Old Fort William Cottagers’ Association, Éric Notebaert, Canadian Association of Physicians for the Environment, Evelyn Gigantes, Anna Tilman **and many others**. Contributions of First Nations and NGO’s such as Ottawa Riverkeeper, Northwatch, Nuclear Waste Watch, and the Canadian Environmental Law Association are also greatly appreciated

Here is a short list of **some** of the most serious deficiencies highlighted to date in submissions posted on the registry. The EIS:

1. does NOT consider the Ottawa River as a valued ecosystem component worth measuring the impact on
2. does NOT adequately describe the wastes that would be put in the facility
3. does NOT provide adequate justification for the proposed site or the proposed technology
4. does NOT explain how or why there would be fissile materials in a facility that would only be considered appropriate for very low level radioactive wastes by the International Atomic Energy Agency.

5. does NOT use standard internationally accepted terminology in the name of the facility and classifications of wastes.
6. does NOT include design requirements or design details
7. does NOT include an adequate description of the waste acceptance criteria or the process by which they were developed.

The process under which EIS is being evaluated is flawed

The EIS for the “Near Surface” Disposal Project is being evaluated under a gutted Environmental Assessment Act, (CEAA 2012), brought in by the previous conservative government, with no public debate, as part of an Omnibus Bill in 2012. The current Environmental Assessment (EA) for the NSDF is the Canadian Nuclear Safety Commission’s (CNSC’s) first time conducting an EA as sole decision maker.

The Trudeau government, early in its current mandate, appointed an Expert Panel to review CEAA 2012 and recommend improvements. The Expert Panel identified many problems with CEAA 2012 and made a series of recommendations in its report to the government in April, 2017 entitled [Building Common Ground: A New Vision for Impact Assessment in Canada](#). The report specifically recommended (among other things) that sole decision-making authority on nuclear projects be taken away from the CNSC and given to an independent Impact Assessment authority. The Trudeau government has indicated its intention to enact new EA legislation in 2018.

Given the flaws in the current EA legislation, and the government’s intention to address these, the current EA and review of the EIS for the NSDF lacks legitimacy. Many concerned Canadians believe the EA should be suspended and restarted under new legislation.

E-petition 1220 to the House of Commons requests suspension of evaluation of this EIS, and the larger EA of which it is part

The text of the e-petition is as follows:

A Petition to the House of Commons in Parliament Assembled

Whereas:

- Three project proposals for permanent disposal of the federal government’s radioactive waste are being reviewed under the Canadian Environmental Assessment Act, 2012 (CEAA 2012).
- These projects would inevitably result in long-term radioactive contamination of the Ottawa and Winnipeg Rivers.
- Ongoing environmental assessments of the three radioactive waste disposal projects lack legitimacy; they are hampered by serious flaws in CEAA 2012 identified in the April 2017 report of the Expert Panel to review federal environmental assessment processes. CEAA 2012: does not provide early and ongoing public participation opportunities that are open to all; does not ensure that information is easily accessible, and permanently and publicly available; and

gives the Canadian Nuclear Safety Commission (CNSC) sole authority to decide if a nuclear project would cause significant adverse environmental effects.

- The Government of Canada plans to enact new environmental assessment legislation in 2018.

We, the undersigned residents of Canada, call upon the Government of Canada to:

1. suspend all environmental assessments of projects involving permanent disposal of radioactive waste;
2. restart these projects under new environmental assessment legislation; and
3. adopt the Expert Panel recommendation that a new federal impact assessment authority replace the CNSC as decision maker for nuclear projects.

The petition opened for signatures on Friday August 11, at 11 am at the following url:

<https://petitions.ourcommons.ca/en/Petition/Details?Petition=e-1220>

To date (August 16, 2016) the petition has been supported by 630 Canadians from coast to coast to coast in ten provinces and two territories.

CNSC does not have sufficient impartiality to be making decisions about this EIS and nuclear projects such as the NSDF

The Expert Panel on Environmental Assessment heard from some Canadians that the CNSC lacks independence and neutrality because of the close relationship between it and the industry it regulates. The Panel heard that CNSC promotes the projects it is tasked with regulating, and further that it is subject to “regulatory capture”. ([Report of the Expert Panel](#))

According to Wikipedia, “Regulatory capture is a form of government failure that occurs when a regulatory agency, created to act in the public interest, instead advances the commercial or political concerns of special interest groups that dominate the industry or sector it is charged with regulating. When regulatory capture occurs, the interests of firms or political groups are prioritized over the interests of the public, leading to a net loss to society as a whole.” (Wikipedia, August 14, 2017)

For many years concerned Canadians have observed the CNSC appearing to demonstrate that it is a “captured regulator”; CNSC has a strong record of appearing to prioritize the needs of the nuclear industry over its legislated mandate under the [Nuclear Safety and Control Act](#) which is to limit the risks to national security, the health and safety of persons and the environment associated with the nuclear industry.

Of the many examples that could be provided to illustrate CNSC’s status as a “captured regulator”, I will provide the one with which I am most familiar. For a period of 15 years, the CNSC (and its predecessor, the Atomic Energy Control Board) allowed very high levels of tritium to be released in the City of Pembroke from the tritium light factory, “SRB Technologies”. Tritium is a radioactive form of hydrogen, the main building block of organic molecules. It bonds with oxygen to make radioactive water molecules which can travel quickly and easily through the environment and into the bodies and cell

nuclei of all living things, thereby constituting an internal hazard to cell and genetic integrity.

For many years, Concerned Citizens of Renfrew County and Area pleaded with the CNSC and its predecessor to make environmental monitoring a condition of the company's license, to no avail. Alarmed by sky high tritium emissions reported in annual reports, local citizens took environmental monitoring into their own hands, collecting samples of vegetation and paying to have them analyzed. This action led to a front-page story on the Globe and Mail, entitled [“The Atomic Rhubarb of Pembroke”](#).

Incredibly, it still took many years of collecting and analyzing data at citizen expense, intervening, pleading and even a judicial review, before the CNSC acted to require the company to implement an environmental monitoring program and to place some restrictions on its tritium emissions. To date, ground water and vegetation near the Pembroke factory remain contaminated with tritium at levels many times higher than the background level of 2 Bq/l (three-quarters of which is residual from atomic bomb testing, and one-quarter of which is naturally occurring).

CNSC's status as a “captured regulator” is also indicated in an email sent on March 30, 2017, in response to a citizen query. In this memo, a CNSC staff member confirms that the Canadian Nuclear Safety Commission has never refused to grant a license during its 17-year history. This memo can be viewed on the website of the Canadian Coalition for Nuclear Responsibility at: http://ccnr.org/CNSC_licence_refusals_2017.pdf

The EIS for the NSDF (and the larger EA of which it is part) illustrate that nuclear waste governance needs major improvement in Canada

Many concerned Canadians are asking, “Given that NSDF is **not** a near surface disposal facility and given that the wastes proposed to be emplaced in it are totally inappropriate according international guidance and standards, **WHY DID A RED FLAG NOT GO UP** early in the process, to stop the assessment of this project before so much time and money were wasted.

The reason a red flag did not go up, is that there are no policies, strategies or regulations in Canada governing how radioactive wastes are managed. Other countries have overarching policies and strategies that spell out in detail what types of technologies must be used for each specific class of radioactive waste. In Canada, the approach is that a proponent can propose anything it wants and the onus is on it to prove (to its captured regulator) its proposal is safe. This is clearly a bad way to govern nuclear industries and waste projects. Canada needs to develop policies, strategies and regulations for nuclear waste, as recommended by the IAEA and as implemented in many other countries, to avoid another boondoggle of this sort.

The lack of policies, strategies and regulations to govern radioactive waste in Canada is the focus of a petition to the Auditor General, which will be submitted later this month by the Concerned Citizens of Renfrew County and Area and the Canadian Environmental Law Association. The petition is entitled “Closing Gaps in Canada’s policy and strategy for non-fuel radioactive waste disposal”.

Another problem with nuclear waste governance in Canada is that CNSC reports to the same Minister that is responsible for promoting the nuclear industry in Canada

The NSDF proposal and EIS show what can go wrong when private sector is put in charge of radioactive waste in a country with inadequate nuclear waste governance

Between 2005 and 2015, over a billion dollars were spent by the federal government in Canada to develop a plan and strategy for cleaning up its legacy radioactive wastes at Chalk River and other locations. The planning was done as part of a “Nuclear Legacy Liabilities Program”. The estimated cost to responsibly deal with the wastes ranged from \$6 billion to \$10 billion.

In 2015, the conservative government of the day cancelled the Nuclear Legacy Liabilities Program and privatized the management of Canada’s federally-owned nuclear facilities and radioactive wastes. The contract it signed with multinational consortium, Canadian National Energy Alliance, emphasized speed, low cost and disposal of all wastes. This led quickly to the proposal for the “Near Surface Disposal Facility”, and a promise by the consortium that shovels would be in the ground by 2018.

It appears that the NSDF was originally proposed under the Nuclear Legacy Liabilities Program as a repository for Very Low Level Radioactive wastes, a use that would have been appropriate according to international guidance. It appears that the multinational consortium took advantage of the policy, strategy and regulatory vacuum in Canada, and expanded the range of wastes that would be placed in the NSDF to include “low” and “intermediate” level radioactive wastes, some of which are highly toxic and will outlive the above-ground mound containment technology for many thousands of years. The nominal cost of dealing with Canada’s federally-owned radioactive wastes was thus reduced 10 fold or more while the potential costs of radioactive pollution of air and water, adverse health outcomes, decreased property values, lost tourism revenues, etc. skyrocketed.

A petition to the Auditor-General from Concerned Citizens of Renfrew County and Area and the Canadian Environmental Law Association submitted in June 2017, raises questions as to the wisdom and value to Canadian taxpayers of replacing the Nuclear Legacy Liabilities Program with privatization of the management of Canada’s federally owned radioactive wastes. The petition, number 405, has been sent to the Ministers of Natural Resources, Finance, and Environment and Climate Change and their responses

are due in November, 2017. The petition will be viewable shortly on the Environmental [Petitions section](#) of the website of the Office of the Auditor-General of Canada.

Recommended internet resources on problems with the NSDF

Information provided by the NSDF proponent is incomplete and misleading. Citizens' groups have stepped into the void. Canadians concerned about this proposal will find useful information on the following sites:

Concerned Citizens of Renfrew County and Area

<https://sites.google.com/site/concernedcitizensrca/>

<https://www.facebook.com/RadWasteAlert/>

Canadian Coalition for Nuclear Responsibility

www.ccnr.org

Old Fort William Cottagers' Association

<http://ofwca.org/SheenOFWCA/OFWCACNL.html>

<https://www.facebook.com/OFWCARadioactive/>

Ralliement Contre la Pollution Radioactive

<https://www.facebook.com/ralliementcontrelapollutionradioactive/>

The House of Commons e-Petition 1220

<https://petitions.ourcommons.ca/en/Petition/Details?Petition=e-1220>

Petitions to the Commissioner of Environment and Sustainable Development

http://www.oag-bvg.gc.ca/internet/English/pet_fs_e_929.html

search for : "Spending for Nuclear Legacy Liabilities" and "Closing Gaps in Canada's Policy and Strategy for Non-Fuel Radioactive Waste Management"

Conclusion

Given the many serious deficiencies in the EIS for the NSDF, the CNSC should call a halt to the EA process. The deficiencies are so numerous, the misuse of terminology by the proponent so misleading, and the proposed technology so obviously inappropriate and out of alignment with international standards and guidance, that any further work on the EIS is not warranted. Were the CNSC, at this point, to assist the proponent to address deficiencies, it would be a waste of taxpayers' money and the time and energy of citizens and elected representatives who will then have to step in to the policy and regulatory void to stop this project from going forward. CNSC would thereby cement the perception that it is incapable of carrying out its mandate and that nuclear governance is in dire need of reform in Canada.