THE NATIONAL COUNCIL OF WOMEN OF CANADA
LE CONSEIL NATIONAL DES FEMMES DU CANADA

Canadian Nuclear Safety Commission
Aimee Rupert Environmental Assessment Officer
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Re: 80182 Global Power "*Project Description*" for Proposed Micro Modular Nuclear Reactor at CNL Chalk River Site

The National Council of Women of Canada (NCWC) has strong precautionary policy regarding the many dangers of nuclear power to public health and safety and the environment, and we are recently on record with the Canadian Environmental Assessment Agency as supporting full Environmental Impact Assessments for small modular nuclear reactors, under the 2019 Impact Assessment Bill C-69 .1.

Therefore, NCWC is extremely concerned that Global Power's micro-modular nuclear reactor "*project*", the first of its kind to get to this stage of CNSC's application process , and therefore a precedent-setting one, is instead subject of a CNSC "*review*" , and *"assessment*" under the much weaker 2012 Canadian Environmental Assessment Act.

Given CNSC's guidance to the nuclear industry and promotion of micro nuclear reactors as the next generation of electricity providers across Canada , NCWC doubts the impartiality of this process. 2. Nevertheless, in the public interest NCWC raises the following issues of great concern regarding Global Power's nuclear micro reactor, as this project :

- is the first reactor of its kind to use extremely dangerous enriched uranium as fuel and this raises concerns about nuclear proliferation 3.

- Is likely to experience the same types of accidents , and failures of similar reactors in the USA and Europe. 4.

- may fail commercially, as these types of reactors have not been economically feasible elsewhere.5.

- is to be located at the Chalk River site in a recognized earthquake zone near the Ottawa River .

- will transform reactor fuel over twenty years of operation into high-level waste, containing highly- radioactive, long-lived fission products . 6.

- accounts for a prototype at only one location i.e. Chalk River , which doesn't reflect other sites such as remote communities with additional barriers e.g. siting transportation , community conditions , safety and security capacity 7.

- fails to provide detailed plans for decommissioning 8.

- is likely to be opposed strongly by First Nation Chiefs 9.

Given these very important cautionary problems with Global Power's project and with small nuclear reactors in general, it is crucial that CNSC develop extremely strong assessment parameters for its "*project description,*" and those of subsequent modular nuclear projects. This is to ensure that none are approved unless the environment and public/community and worker health and safety, are stringently protected now and over the very long term .

Therefore NCWC recommends that the Global Power "*project description*" include:

- 'in-depth' proof of the proponent 's experience in building and managing small nuclear reactors .

- a description of the fuel to be used , its risks and proposed safety measures.

- a detailed description of the main components of the reactor and its operation.

- examples of successful modular nuclear reactors elsewhere.

- a record of proven experience for the company's researchers, and operational staff.

- a detailed description of the site, including barriers to safe operation.

- a crisis management plan e.g. nefarious actions and emergency measures for accidents e.g. emergency crew access in remote locations .

- assurance of safe handling and disposal of nuclear waste-out of human contact and in perpetuity i.e. nuclear waste inter-generational stewardship

- proof that international standards will be met.

- a peer-review by independent scientists of design, operation , safety, public and worker health, environmental protection and social impacts .

- a plan for deployment elsewhere in Canada –similarities and differences – and adaptations for these

- a life-cycle cost benefit and loss analysis of the environmental, operational, health, social, and waste management of the project over the short, intermediate and very long term.

NCWC looks forward to a detailed response to our concerns and an opportunity to attend any subsequent hearing on this application.

Gracia Janes, VP Environment National Council of Women of Canada
[Email address Redacted]

References :

1. National Council of Women of Canada letter to Canadian Environmental Assessment Agency .May 31st 2019
2. .Concerned Citizens of Refrew County. Globe and Mail article November 6 2018. " *Federal nuclear regulator urges Liberals to exempt smaller nuclear reactors from full panel review Globeandmail.com/business/article-federal-nuclear-regulator-urges liberals- to-exempt –smaller-reactors/*
3. Information sheet Northwatch&Personal Communication. Gordon Edwards. .August 19th 2019
4. Old Fort William Cottagers Association comments to CNSC.August 27th 2019 *…" the types of technology that GFP is proposing, have a spotty safety record and are "prone to failures that could potentially lead to serious accidents releasing radioactivity into the environment. All HTGRs have been shut down before their licenses expired according to: Englert, MaBhias, Friederike, Frieß, and M. V. Ramana. 2017. (hBp://dx.doi.org/10.1080/08929882.2017.1275320) Ramana, M.V. 2016 "The Checkered Operational History of High Temperature Gas-Cooled Reactors." Bulletin of the Atomic Scientists 72 (Issue 3):171-179.*
5. *Information Sheet North Watch &* Personal Communication Gordon Edwards. August 19 2019
6. *ibid.*
7. Old Fort William Cottagers Association comments to CNSC. August 27th 2019 .pages 7-8.
8. Ibid
9. *9.North Bay.Expositor News" The Anishinabek Nation Chiefs-in-Assembly have sent a strong message to the nuclear industry and the governments of Canada and Ontario, having unanimously endorsed a resolution stating their clear opposition to the construction, operation, storage or disposal of small modular reactors (SMRs) in the territory of the Anishinabek Nation, including bodies of water.". .*