



**Written submission from
Alberta Nuclear Nucleus Ltd.**

**Mémoire de
Alberta Nuclear Nucleus Ltd.**

In the Matter of

À l'égard de

**Decision on the scope of an environmental
assessment of the proposed Micro Modular
Reactor Project at the Canadian Nuclear
Laboratories Ltd., in Chalk River**

**Décision sur la portée de l'évaluation
environnementale pour le projet de
microréacteur modulaire aux Laboratoires
Nucléaires Canadiens ltée, à Chalk River**

Hearing in writing based on written
submissions

Audience par écrit fondée sur des mémoires

June 2020

Juin 2020

Public comment for USNC application for Environmental Assessment at Chalk River site.

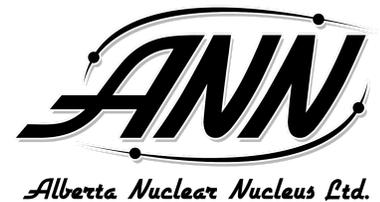
To the Canadian Nuclear Safety Commission,

My name is Sean Wagner, and I am the President of Alberta Nuclear Nucleus a non-profit advocacy group for nuclear energy in Alberta. I am writing to you today in support of Global First Power's (GFP's) submission for an Environmental Assessment License to investigate the potential environmental impacts of building an MMR test reactor at the Chalk River campus.

Many would claim that there is no potential for nuclear energy producers to be able to produce energy with a low environmental impact. Perhaps claiming that such a facility would utilize exorbitant amounts of materials that are known to have high greenhouse gas costs during their production such as steel and concrete. Or that the facilities would use, and render non-potable, vast quantities of water, a precious resource that we are discovering the need to conserve in the oncoming future.

But these claims are not valid against the pursual of an Environmental Assessment License as they assume that failure to meet standards is inherent in the design and construction of nuclear facilities. They do not take into account the security and integrity of the Fully Ceramic Micro-encapsulated (FCM) fuels being investigated and employed by Ultra Safe Nuclear Corporation (USNC) and GFP. They also neglect to investigate how the facility might attempt to minimize water usage by employing a gas coolant and molten salt heat transfer fluids instead of the historic light water used by most previous reactors. And the entire purpose of the Environmental Assessment License is to determine the viability of these options in countering historic problems with nuclear operations. By attempting to colour the conversation to claim failure of the facility before even the investigation can be started, they are attempting to prevent the possibilities that the MMR reactor can work to bring to communities both large and small.

Nuclear energy through its inherent high energy density is capable of applying vast quantities of power to help solve problems that arise in all manner of Canadian communities. Whether it is the high cost of energy in remote communities that are forced to ship in fuel to keep their lights on, or uncertain water quality/volumes in larger communities, nuclear energy can provide solutions in the form of small modular reactors like the MMR. By stabilizing energy production predictability over years instead of being uncertain about next month's energy availability, prices can be reduced for end-users due to predictability of forecasts of production. By using excess heat from the facility, water can be desalinated or even just treated to remove contaminants, helping to maintain basic quality of life standards even during times of potential drought. This also lends itself to other beneficial uses for smaller communities such as scavenging that same



waste heat to maintain year-round greenhouses for vegetable and other plant-based food production, which can improve the dietary health of people who live in these otherwise isolated communities.

This Environmental Assessment license is very important as it opens the potential for a tremendous gain in the livelihoods of people in remote communities that was otherwise impossible under the current fossil-fueled paradigm of energy production. It must be allowed to go forward so that the future direction of energy production in Canada can be informed by defensible facts and data rather than misinformation and scare tactics. Thank you for your time in reading my submission and I look forward to following the decision of the CNSC.

Sincerely,
Sean Wagner MSc.
Alberta Nuclear Nucleus Ltd.
sean.wagner@albertanuclearnucleus.ca
Cell: 780-680-9247



www.albertanuclearnucleus.ca
sean.wagner@albertanuclearnucleus.ca