



Algonquins of Pikwakanagan First Nation

Aimee Rupert, Environmental Assessment Officer
Canadian Nuclear Safety Commission / Government of Canada
P.O. Box 1046, Station B
280 Slater Street
Ottawa ON K1P 5S9
Telephone: 613-943-9919 or 1-800-668-5284
Email: cpsc.ea-ee.ccsn@canada.ca

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RE: Micro Modular Reactor Project at Chalk River – Comments Invited on Global First Power's Project Description

On July 15, 2019 the Canadian Nuclear Safety Commission (CNSC) put out a request for comments on the Project Description for the Micro Modular Reactor Project at Chalk River in order to inform the Scope of the environmental assessment (EA). It is Algonquins of Pikwakanagan First Nation's (AOPFN) understanding that CNSC is seeking local, regional or traditional knowledge of the site or surrounding environment as well as any other relevant information that may help with the conduct of the EA. While it is premature to discuss those topics without agreement on how AOPFN's involvement will be funded and how the Crown will consult with us, we did review the Project Description as this proposed Project, and all activities at the Chalk River facility, would and do occur on AOPFN territory. Please accept this letter as our initial comments on the Project Description.

Upon our preliminary review of the Project Description (PD), AOPFN finds this document to be surprisingly sparse in detail given it's should be its purpose to support decisions by Crown agencies about the applicability of an EA and to guide the scoping process for any required EA. In particular, the PD has limited detail about potential impact pathways on people or the environment, although the PD does suggest that it has conducted some form of "assessment of the significance of adverse effects" (pg. 37 of 52); this is obviously premature for this point in the process. In addition, almost no Indigenous engagement information is provided, and AOPFN can confirm that engagement to date has been limited to one meeting with representatives who represent OPG and GFP. A great deal more information will be required by AOPFN during the scoping phase of the environmental assessment than is provided here, and we will need capacity funding to support this part of the process.

AOPFN herein identifies a number of initial issues and concerns with the Project based on the PD which include the selection process for the Project, the capability of the Proponent, lack of confidence in the technology maturity and safety of the project, the siting process, inadequate consideration of AOPFN

1657A Mishomis Inamo
Pikwakanagan, ON K0J 1X0



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Interests, and Baseline Characterization and Effects Assessment. **Included with each topic are specific information requests that AOPFN requires be addressed during this early scoping stage of the process.**

Selection Process

We understand that Canadian Nuclear Laboratories (CNL) has initiated a competitive process to select an Micro Modular Reactor (MMR) technology provider for pilot testing at the Chalk River site. In February 2019 CNL determined that Global First Power (GFP or the Proponent) had advanced to stage 3 of the selection process. AOPFN is concerned that other technology providers may also be advanced to stage 3 of CNL's selection process. If this were to occur, there is a potential that multiple similar projects would be subjected to EA and licensing processes. This has the potential to result in significant duplication and a high workload for AOPFN. In addition, AOPFN does not want the Project to have been filed prematurely simply to avoid the higher expectations of the new Impact Assessment Act. AOPFN therefore requests that:

Request 1. CNSC find out from the site owner – AECL – and site manager – CNL - whether proposals from other MMR technology providers may be submitted for EA consideration by the CNSC or through the new IAAC process. In addition, all of the parties should provide a response as to why this project is being advanced to EA and regulatory processes prior to GFP being selected as the preferred technology provider.

AOPFN is also concerned that given CNL's role in the Selection process that CNL appears to also be a proponent.

Request 2. Given CNSC's role to-date please explain why CNL is not serving as the proponent (or co-proponent) for the proposed project.

Partnership Structures and Capability of the Proponent

AOPFN is concerned that the Project Proponent, Global First Power (GFP or the Proponent), appears to have limited direct experience related to the proposed development. In the PD section 2.2.1, the company indicates it "has been developing capabilities to function as a smart buyer of nuclear technology and specifically for the use of the MMR technology"(p.12). AOPFN believes that, as the Proponent, GFP should have demonstrated in-house capabilities to serve as the Project lead. This is not evidenced in the PD. Based on their limited experience, the Proponent may lack the technology and maturity to implement such a project independently and must partner with others. Although the Proponent has stated that they are working with the other parties such as Ultra Safe Nuclear Corporation (USNC) and Ontario Power Generation Inc. (OPG), the Project Description provides no information confirming the parties have committed to work with GFP to implement the project (see p. 7). AOPFN requests the following information:

Request 3. The Proponent and /or CNSC to provide evidence that GFP has expertise related to the construction and operation of nuclear facilities.



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Request 4. CNSC and/or the Proponent to provide confirmation of who will be partnering (i.e. USNC, OPG, AECL, or CNL) in the Project, including any commitments for financing (Federal funding or otherwise) and whether there is any risk of the Project not proceeding if these partnerships do not go forward.

Lack of Confidence in the Technology Maturity and Safety of the Project

AOPFN is concerned that the PD provides limited information regarding potential failure modes and consequences. Although we acknowledge that such assessments will occur during subsequent approval processes, given the fact that the technology is unproven, preliminary evaluations of such risks are justified at this stage. The confidence that can be held in the safety of the facility will be closely tied to it being proven in all of its component parts and as a whole.

Request 5. CNSC is requested to require the Proponent provide an initial assessment of potential failure modes and consequences of the proposed project. The initial assessment should address the full life-cycle of the project, including decommissioning and long-term waste management. It should also assess both the nuclear and non-nuclear risks associated with the facility (releases of hydrogen gas, molten salt, transportation risks, etc.).

The PD also indicates there are no scenarios where radioactivity could be released from the facility under postulated accidents. The Proponent asserts in section 6.2 of the PD that the proposed MMR technology's inherent safety characteristics and innovative novel features, contribute to enhanced safety (lower radiological effects and consequences) compared to current conventional nuclear power plant technologies (p.43).

Request 6. CNSC is requested to require the Proponent to provide documentation that proves the assertion that there are no scenarios where radioactivity could be released.

While the Proponent argues that the MMR technology proposed is "largely based on proven designs with inherent safety features" (p.15), nowhere in the PD is it indicated or proven that the proposed technology has been tested in the context of a fully integrated and comparable facility.

Request 7. CNSC is requested to require the Proponent to provide evidence and or case studies of fully integrated MMR facilities to demonstrate that similar technologies have been constructed and operated without resulting in adverse impacts to people and/or the environment.

Siting Process

AOPFN is concerned that we were not and continue to not be involved in the siting process for this Project. It is our understanding that CNL initiated the siting process through a site feasibility study (see section 2.1)



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whereby three candidate sites were selected. The Proponent is now considering these sites for its facility through an ongoing selection process. The Proponent states that, "The final site selection decision of the preferred site will be made following results of additional supporting studies" (p. 35). There has been no indication that we will be involved in this process. AOPFN would like to know whether OPG facilities were considered as part of this process.

Request 8 CNSC to require the Proponent to involve AOPFN in all site selection processes and alternatives assessment.

Request 9. CNSC to provide a rationale for not evaluating other sites to implement the Project outside of the Chalk River Property.

Inadequate Consideration of Indigenous Interests

AOPFN is highly concerned about the inadequate level of engagement provided to-date for this Project. We understand from section 6.3 of the PD that CNL was accountable for all communications and engagement up until February 2019 when GFP's proposal was advanced to stage 3 of the review process. From that point onward GFP has assumed responsibility for Indigenous engagement. On this basis, GFP has been in a position to engage for 7 months. The Proponent reports that they have begun engagement activities that meet the requirements of the CNSC, however, the Proponent has not produced any summaries or evidence of such engagement in the PD. Given the many concerns for our Members with this Project, meaningful engagement needs to be started immediately. This is especially important as the technology proposed is largely unknown to us and our Members; therefore, the time is now to start socializing how this Project would work if it is to receive AOPFN's free, prior and informed consent to proceed in our unceded lands. Given these concerns we request the following:

Request 10. CNSC is requested to require the Proponent to provide a summary of AOPFN engagement performed by CNL in support of GFP's current proposal.

- a) Identify any issues raised by Algonquins of Pikwakanagan during this engagement and how the Proponent has responded or plans to act to deal with these concerns.

Request 11. CNSC is requested to require the Proponent to provide a copy of any other Indigenous engagement plan for our consideration.

The PD states that GFP has conducted a preliminary assessment of the significance of potential adverse impacts and considerations such as asserted rights, historical or traditional practices and land claims (see section 4.3). How input from Indigenous Groups or what resources were consulted in this preliminary assessment have not been discussed or provided. The Proponent has also not indicated how they will work with AOPFN in the collection and consideration of Traditional Knowledge. We request the following:



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Request 12 CNSC is requested to require the Proponent to provide documentation of the preliminary rights assessment and indicate whether the Algonquins of Pikwakanagan were consulted during this assessment.

Request 13 CNSC is requested to require the Proponent to provide a description of how they intend to collect and utilize Traditional Knowledge for the EA and throughout the life cycle of the proposed project.

Baseline Characterization and Effects Assessment

Based on the documentation provided, it appears that no project-specific baseline characterization studies have been conducted to date. However, a large body of potentially relevant studies does exist from other projects performed at the Chalk River Laboratories site. Unfortunately, none of that information was presented in the PD, nor was any indication given regarding what baseline characterization studies will be performed in support of the proposed project. This is concerning given that the PD indicates that the Project effects will be limited to the CRL site (See Section 7, p.47). The proponent has not initiated its effects assessment of the proposed project and no modelling has been done to predict potential impacts. AOPFN therefore considers any such estimation as highly premature. AOPFN requests the following:

Request 14 CNSC is requested to require the Proponent to provide an annotated summary of all pre-existing documentation of the CRL site and surrounding areas that may be pertinent to the baseline characterization of the proposed project.

Request 15 CNSC is requested to require the Proponent to provide a preliminary workplan identifying and describing all additional baseline characterization studies that GFP intends to perform in support of its application.

- a) The workplan should describe current information gaps and the studies that will be performed to address those gaps. It should also identify the timelines required to collect sufficient information to ensure baseline conditions are adequately characterized.

Request 16 CNSC is requested to require the Proponent to describe all environmental modelling that GFP intends to perform to determine potential environmental impacts of the project (atmospheric dispersion modelling, groundwater fate and transport modelling, human health and ecological risk assessments, etc.).

Request 17 CNSC is requested to require the Proponent to provide a summary of previous, current and reasonably foreseeable physical works and activities that have the potential to contribute to cumulative effects when combined with the proposed project. This summary should include sub-threshold activities; in other words, a "Project Inclusion List" does not tell the full story of land and land use changes that have contributed to cumulative effects.



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Waste Management

The proposed project will generate various waste streams, including spent fuel. It is currently assumed that intermediate storage of such wastes will occur on the CNL property; the waste will subsequently be disposed in a permanent facility that will be developed and managed by the Nuclear Waste Management Organization (NWMO). AOPFN requests the following

Request 18 CNSC is requested to seek confirmation from CNL and the NWMO that their facilities have sufficient capacity and that they commit to managing any radioactive wastes that will be generated by the proposed undertaking.

Overarching AOPFN Concerns Related to the Project, the Process and the Chalk River Facility

Key issues that need to be considered during this assessment, should one occur, include (note that this is a very preliminary list only and needs to be examined further through consultation by the Crown and engagement by the Proponent):

1. The health of our lands and waters and the health of the earth, which sustains AOPFN members through wildlife, water, food and medicinal plants, among other means;
2. AOPFN concerns about the impacts of the proposed Project and the existing Chalk River facility in general on ongoing land selection processes and Title Claim with the Crown;
3. The associated inadequate consultation framework with the Crown for any physical works and activities on these unceded AOPFN lands;
4. This proposed Project and the Near Surface Disposal Facility at Chalk River, in particular, are raising concerns from AOPFN re: food security, alienation from land, and land and water safety from contamination;
5. AOPFN also has concerns about whether we have been or will be adequately engaged by the Proponent and consulted by the Crown in relation to this proposed Project. Specifically, AOPFN wants its own separate consultation process with the Crown;
6. Community members' and leadership concerns about nuclear waste being left in our territory;
7. Inadequate information provision to AOPFN about activities at Chalk River in general (which leads to uncertainty and the potential for heightened risk perception related to the facility);



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8. Concerns about the proximity of the Chalk River facility and sites within it storing or otherwise managing nuclear waste, being too close to the Ottawa River;
9. The lack of consultation or accommodation for past impacts related to the alienation of the Chalk River facility lands and resources from AOPFN members, and AOPFN's desire for an accommodation agreement with CNL/AECL; and
10. How the AOPFN can benefit from this Project (response from the Proponent group has been limited to date).

Conclusions

We as Algonquins of Pikwakanagan First Nation take on the Advocacy Role for those who cannot speak for themselves. We keep in mind our children, elders & Our Seven Generations still yet to be in all our decisions. Our Traditional Knowledge is that we are Care Givers to the Safety & Health of Water & Land that supports all life. This include Aquatic/Fish, Trees & Plants for our Food & Medicines; Animal life for our food source & Beneficial Insects that supports the continued population of plant life. We therefore consider any Projects in our unceded lands that may impact our land and way of life. We therefore hope that CNSC gives serious consideration to our comments in determining the scope of this EA. We request that you set up a process with us to go over these comments and develop a joint path forward. We look forward to working with you.

Sincerely,

<Personal Information Redacted>

Kirby Whiteduck, Chief
Algonquins of Pikwakanagan First Nation