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Written submission from Women in Nuclear Canada

In the Matter of

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

Hearing in writing based on written submissions

June 2020

Mémoire de Women in Nuclear Canada

À l'égard de

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

Audience par écrit fondée sur des mémoires

Juin 2020

Canada

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June 1, 2020

Tribunal Officer, Secretariat
Canadian Nuclear Safety Commission
P.O. Box 1046 Station B
280 Slater Street
Ottawa ON
K1P 5S9

Subject: Opportunity to Submit a Written Intervention on the Scope of an Environmental Assessment for Proposed Project by Global First Power

Dear Sir or Madam,

Women in Nuclear (WiN) Canada is pleased to submit an intervention addressing the scope of factors for the environmental assessment (EA) of the Micro Modular Reactor (MMR) Project at Chalk River Laboratories (CRL), proposed by Global First Power (GFP).

Nuclear energy continues to be an essential part of the energy mix, globally and in Canada, presenting a clean and reliable energy source, capable of complimenting renewables. Interest in small modular reactor (SMR) technology is growing across the industry and around the world given their advanced safety features, scalability and adaptability. There are more than 150 proposed designs worldwide. In Canada, small reactors have been in existence for over 50 years, since the beginning of reactor technology. These include the research reactors at McMaster University in Hamilton, Royal Military College in Kingston, and the Nuclear Power Demonstration (NPD) reactor at Chalk River. Advanced technology SMRs are already being deployed into operation today, around the world.

An open, transparent and thorough environmental assessment process is critical to ensuring the protection of the environment from significant adverse effects. The CRL site presents an ideal location for the proposed MMR project by GFP. This site has hosted many nuclear projects, providing precedents for the collection of data specific to this project. Although we know this would be a new project on the CRL site, there are likely a number of existing studies and many years of operating experience, which will help inform the MMR environmental impact statement (EIS). The CRL site has been operating for more than 7 decades, with an impressive history of research and developments, which have advanced the nuclear industry. The operating experience on this site, together with the expertise of the staff at CRL and GFP, will be invaluable in the development of the EIS.

The design of the MMR is such that construction is expected to occur off site, with only major component assembly taking place on the CRL site. The impacts of construction to the environment at the CRL site are demonstrably less than what would be expected for a major construction

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project on the site itself. The reactor design does not require a source of cooling water, translating to little or no impact on the Ottawa River and the surrounding natural waterways and bodies of water. In addition, no infrastructure is required to draw water, which further reduces impact to the environment. Cultural heritage impacts should be considered, and given the long operating history of the CRL, the probability of any impact that has not been studied or documented would be unlikely. Any potential areas of cultural heritage importance on the site (including Indigenous heritage) are already well known and documented through previous EAs and site activities. Further to the design of the reactor, the MMR reactor provides for the operation of the unit on a single load of fuel over the anticipated 20-year operating life of the unit. The volume of fuel is known, which is an important factor in considering decommissioning planning.

This proposed project by GFP will provide Canada with a viable option for clean, reliable nuclear energy, complementing renewables, in meeting growing energy demands, while supporting environmental and climate change goals. This project offers an alternative energy source for heavy industry and remote communities, with additional applications such as heating and water desalinisation.

The experience and expertise of partner companies collaborating on this project will no doubt support a successful outcome of this project.

Based on these points, WiN Canada believes the scope of factors identified in CEAA 2012, and as recommended by staff of the Canadian Nuclear Safety Commission (CNSC) in CMD 20-H102, is appropriate for the MMR project and will enable the Commission to make an informed decision on the EA.

Sincerely,

Lisa McBride
President, WiN Canada