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**Written submission from
Kinectrics Inc.**

**Mémoire de
Kinectrics Inc.**

Regulatory Oversight Report for
Canadian Nuclear Power Generating
Sites: 2022 and Mid-term update for
Ontario Power Generation's Pickering
Nuclear Generating Station

Rapport de surveillance réglementaire
des sites de centrales nucléaires au
Canada : 2022 et Rapport de mi-parcours
d'Ontario Power Generation pour la
centrale nucléaire de Pickering

Commission Meeting

Réunion de la Commission

December 13 and 14, 2023

13 et 14 décembre 2023



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October 30, 2023

Commission Secretariat
Canadian Nuclear Safety Commission
280 Slater Street
P.O. Box 1046, Station B
Ottawa, Ontario
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Commission Meeting, Public Meeting on Mid-Term Update for Ontario Power Generation's Pickering Nuclear Generating Station

Dear Commission Secretariat,

The purpose of this letter is to express Kinectrics' support for Ontario Power Generation's (OPG's) Pickering Nuclear Generating Station (PNGS) continued operation under Power Reactor Operating Licence (PROL) 48.01/2028.

Kinectrics is a proudly Canadian company, committed to sustainable, long-term global growth. We provide complete life cycle management solutions to the electricity industry, working with our customers to fight climate change and save lives through clean electricity generation and medical isotope production. Our headquarters are in Etobicoke, Ontario with offices in Pickering, downtown Toronto, Bruce County, the United States, Germany, Denmark, Romania, United Kingdom and India. We operate over 30 laboratories including CNSC-licensed nuclear facilities and employ more than 1,300 staff, 70% of whom have technical, science or engineering degrees.

At Kinectrics, we invest in state-of-the-art facilities and tools to provide the best and most comprehensive services to our customers. Our laboratories provide testing facilities for a broad range of areas in support of the nuclear industry, including materials analysis, nuclear radiation safety, and chemical analysis. Our world-class experts deliver services including project management and controls, design engineering, nuclear safety analysis and licensing, fitness-for-service and operational support, specialized assessment services, and life cycle management for the long life, functionally critical reactor components such as Fuel Channels, Feeders, and Steam Generators. In addition to supporting OPG in these areas, we provide similar services to major nuclear and non-nuclear utilities with over 200 clients in North America, Europe, the Middle East and Asia. We also provide the broader electricity industry with Transmission & Distribution testing services including electrical transformer testing and renewable energy grid interconnection.



Kinectrics provides a broad range of services to OPG which contribute to continued safe operation of the PNGS. For example:

- Services in the areas of design engineering and project management.
- Development and deployment of specialized tools, both manual and robotic, to inspect the reactor core and station infrastructure. These tools inspect various components and structures for signs of fatigue, wear, and/or chemical residue.
- Fuel channel fitness-for-service evaluations, and other asset management services for safety-related equipment and systems.
- Undertaking of deterministic and probabilistic safety assessments in support of the design and licensing bases for the station.
- Provision and qualification of safety-related components where the original equipment manufacturer no longer fabricates to the necessary nuclear quality assurance standards.
- Development of preliminary Periodic Safety Review (PSR) inputs and nuclear safety assessment inputs which were used in the evaluation of the feasibility of Pickering 5-8 refurbishment.
- Execution of PSR-2A and PSR-2B, which amended Pickering PSR2 to support extended operation of Units 5-8 to 2026.

In providing these services to OPG, Kinectrics staff interface with OPG staff across their nuclear organization. This includes approximately 50 Kinectrics staff who work directly at OPG sites. Our core principle is: “No task is so important that we cannot make the effort to do it safely”. Having extensive experience working closely with OPG, we can confirm they share this principle. OPG’s effective management of their facilities provides a safe work environment for our staff. Kinectrics on-site staff are trained in, and adhere to, OPG’s rigorous procedures in nuclear, conventional and radiation safety and environmental protection.

OPG’s continuous improvement programs, directed at both OPG and vendor staff, ensure high safety standards are maintained. Evidence of OPG’s continuous improvement culture is demonstrated through their commitment to self-reflection and awareness, including their frequent participation with Kinectrics in joint quality review and lessons learned meetings. OPG openly shares and seeks operating experience through formal industry forums such as those facilitated by CANDU Owners Group and routinely goes beyond formal forums to share project specific experience with other utilities and vendors.



With respect to protection of the environment, Kinectrics provides analytical and environmental services that support environmental assessments and monitoring programs. Through the provision of these services for OPG, we affirm they uphold their mandate to continuously monitor effluents while working to minimize environmental impacts. The PNGS serves a key role in protecting the environment by providing low-carbon energy to the Province of Ontario.

Kinectrics is a proud member of the Canadian Council for Aboriginal Business (CCAB), which aims to strengthen the relationship between Aboriginal and non-Aboriginal peoples, businesses, and communities. In this regard, we are pleased to work with OPG, which is also a member of the CCAB and has demonstrated a strong commitment to work towards meaningful engagement with indigenous peoples and to further indigenous business involvement in the supply chain. OPG created an Indigenous Opportunities Network (ION) designed to increase the number of Indigenous people working in the nuclear industry by placing them in the building trades on some of OPG's most diverse and innovative projects. ION was created in response to the Truth and Reconciliation Commission Call to Action #92, which calls on corporate Canada to help create a better future for Indigenous workers. Kinectrics shares in this pursuit and is actively working with Indigenous businesses, and Indigenous communities in the regions in which we operate to respond to the Call to Action.

In summary, by working closely with OPG and understanding their programs, procedures, processes, and safety culture, we are confident that OPG is capable of safely operating the PNGS over the remaining licence period. On this basis, Kinectrics supports OPG's continued operation of the PNGS until August 31, 2028. If you have any questions or require clarification, please do not hesitate to contact me at 416.207.6511 or david.harris@kinectrics.com.

Sincerely,

David Harris
President and CEO
Kinectrics Inc.