



**Written submission from the
Nuclear Waste Management
Organization**

**Mémoire de la
Société de gestion des déchets
nucléaires**

In the Matter of the

À l'égard de

Darlington New Nuclear Project

**Projet de nouvelle centrale nucléaire de
Darlington**

Application to renew the nuclear power
reactor site preparation licence for the
Darlington New Nuclear Project

Demande de renouvellement du permis de
préparation de l'emplacement d'une centrale
nucléaire pour le projet de nouvelle centrale
nucléaire de Darlington

Commission Public Hearing

Audience publique de la Commission

June 10, 2021

10 juin 2021



May 3, 2021

File: NWMO-REG-00531-0217

Canadian Nuclear Safety Commission
c/o Louise Levert, Secretariat
280 Slater Street
Ottawa, Ontario
K1P 5S9

Intervention in the matter of OPG's application for renewal of the licence for the Darlington New Nuclear Project

The purpose of this letter is to support the renewal of OPG's licence to prepare site for the Darlington New Nuclear Project.

In 2002, the Government of Canada enacted the Nuclear Fuel Waste Act. Pursuant to that Act, the Nuclear Waste Management Organization (NWMO) was created by the current owners of the nuclear fuel waste in Canada and was given the mandate to first develop and then implement a plan for the long-term management of Canada's used nuclear fuel.

The NWMO studied a number of approaches for long-term management of Canada's used nuclear fuel and submitted its Final Study and recommendation of Adaptive Phased Management in November 2005. The recommendation was accepted by the Government of Canada in June 2007.

Adaptive Phased Management emerged from the NWMO's dialogue and engagement with Canadians. The approach is considered to be flexible, adaptable and robust to a number of future used fuel scenarios in Canada, including the introduction of new nuclear power generation technologies in Canada. Adaptive Phased Management requires the NWMO to select a site which will meet the safety criteria for the deep geological repository and has willing host communities.

The NWMO is obliged by the Nuclear Fuel Waste Act to offer its services, without discrimination and at a fee that is reasonable in relation to its costs of managing the nuclear used fuel to all owners of nuclear fuel waste produced in Canada. Nuclear fuel waste includes the irradiated fuel bundles removed from any commercial or research nuclear fission reactor in Canada. The NWMO has informed the potential host communities involved in its current siting process of this obligation.

The NWMO has and continues to offer its services to the small modular reactor designers to establish the used nuclear fuel program required for the deployment of their specific technology. The program that would be undertaken by the NWMO would depend on the extent to which the characteristics of the new used nuclear fuel differ from the existing used nuclear fuel.

Deep geological repositories remain the technology of choice in all countries with an active used fuel management program for a variety of types of used nuclear fuel and is expected to also be suitable for the used fuel arising from new nuclear power generation. The radiological containment provided by the NWMO's deep geological repository will ensure that the public and the environment are protected. The NWMO would identify as part of its program the adaptations that would be needed to safely emplace the new used nuclear fuel in the repository. The adaptations would form part of a licensing request to the Canadian Nuclear Safety Commission by the NWMO.

In summary, the approach that is being undertaken by the NWMO for the used nuclear fuel in Canada is flexible and can be adapted should OPG proceed to construction of new nuclear power generation at the Darlington site. The NWMO accordingly supports the renewal of the licence to prepare the site.

Although the NWMO is intervening in writing, we would be pleased to appear before the Commission at the licence renewal hearings if requested.

Sincerely,

DocuSigned by:
Allan Webster
540D7AD4EA94492...

Allan Webster
Director, Regulatory Affairs & Environmental Assessment