



Oral presentation

Exposé oral

**Written submission from the
Mississaugas of Scugog Island
First Nation**

**Mémoire de la
Première Nation des Mississaugas
de Scugog Island**

In the Matter of the

À l'égard de

**Ontario Power Generation Inc. -
Darlington Waste Management Facility**

**Ontario Power Generation Inc. - Installation
de gestion des déchets de Darlington**

Application to Renew the Class IB Waste
Facility Operating Licence for Ontario Power
Generation in Darlington, Ontario

Demande de renouvellement du permis
d'installation de déchets de catégorie IB pour
Ontario Power Generation à Darlington
(Ontario)

Commission Public Hearing

Audience publique de la Commission

January 26, 2023

26 janvier 2023

Intervenor Submission: Ontario Power
Generation's Darlington Waste
Management Facility
Licence Renewal Application



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Mississaugas of Scugog Island First Nation
Consultation Office

December 1, 2022



1.0 Introduction

1.1 Background

The Mississaugas of Scugog Island First Nation (MSIFN) is located on the shores of Lake Scugog in Durham, Ontario. MSIFN has a long history in this part of Ontario and is part of the Williams Treaties First Nations (WTFNs). The WTFN's territory extends from the shore of Lake Ontario in the south, Georgian Bay in the west, the Ottawa Valley in the east, and as far north as the French River. Within these treaty territories, MSIFN's priority is the protection and preservation of the lands, waters, wildlife, and fisheries that we rely on.

The Darlington Waste Management Facility (DWMF) is located within the treaty and traditional territory of the Williams Treaties First Nations, giving MSIFN a rights holding position in the project. MSIFN's reserve community is only slightly less than 40km from the project and members have expressed direct concerns and uncertainty surrounding the safety, management, and security of the nuclear waste stored on site, as well as impacts to the environment. Without ever having provided consent, our First Nation must now live with on-going operational and other risks associated with the waste facility. We do not have the option of relocating our treaty lands to avoid these risks to our treaty rights and community safety. The responsibility of the CNSC and OPG to keep our community members safe must not be taken lightly.

MSIFN has reviewed the documents associated with the DWMF license renewal, as well as the Environmental Protection Report (EPR) provided by CNSC staff. This review is outlined in the subsequent Section 2 and has helped to inform our comments and requested conditions for license renewal (Section 3).

1.2 Highlights

If the license renewal request is approved, MSIFN requests that Ontario Power Generation (OPG) proceed with the following activities:

1. **Obtain Consent from MSIFN:** We request that the Canadian Nuclear Safety Commission (CNSC) require OPG to secure MSIFN's consent for the DWMF before proceeding with project activities. Following the CNSC's decision regarding the license renewal, OPG should then engage in follow-up discussions with MSIFN regarding consent for the project moving forward based in part on conditions of approval required by Commissioners.



2. **Commit to Meeting with Leadership to Review International Best Practices:** OPG and CNSC staff meet with MSIFN leadership to review and present a paper providing a comparison and contrast assessment of current international best practices for the management and storage of used nuclear fuel at reactor sites with current practices at the DWMF. OPG should provide MSIFN with capacity funding to hire international experts to peer review the comparison and contrast assessment paper. This will allow MSIFN leadership to better assess the risks and potential impacts, accidents, malfunctions and terrorist threats at the waste facility on the MSIFN community, and understand OPG's standards.
3. **Collaborative Planning:** To prevent reduced communications due to a potential extended license renewal for the facility, MSIFN requests that OPG work together with MSIFN and other interested Williams Treaties First Nations to design and implement a collaborative planning process for lands and facilities within OPG Darlington's site control. A collaborative planning process would also help affected First Nations keep up with all the changes currently happening and soon to happen at the Darlington site, aside from the DWMF. This should be accompanied by capacity funding to cover costs of MSIFN's participation through staff, advisors, and leadership. In the below commentary, we outline how this could touch on issues related to the following:
 - a. Lands & Waters
 - b. Safety & Communication
4. **Offsite Restoration Fund:** To work towards the restoration and stewardship of the landscape around the Darlington site, MSIFN requests that OPG establish a restoration fund that would facilitate projects on lands within and outside of OPG Darlington's site control in collaboration with First Nations, other governments (e.g., municipalities), and environmental groups. This funding should sustain projects over the medium to long term, helping to fill the gap that exists due to this type of this funding currently being largely offered by government grants with short cycles (i.e., 1 – 3 years).

2.0 Background Review

2.1 Darlington Waste Management Facility

MSIFN understands that the Darlington Nuclear Generating Station (DNGS) and Darlington Waste Management Facility (DWMF) are located in the Municipality of Clarington, Ontario. The DWMF receives, processes, and stores dry storage containers of used nuclear fuel (high-



radioactive waste) generated at the DNGS, and stores intermediate-level radioactive waste from the Darlington Refurbishment Project.

MSIFN understands that the existing waste facility operating license will expire on April 30, 2023, and therefore OPG is requesting a renewal of the operating license for another ten (10) years. The renewal would allow for the processing and storage of used fuel from the Darlington Nuclear Generating Station and the storage of Intermediate Level Waste from the Darlington refurbishment project. This facility is referred to as a Class 1B nuclear facility.

The refurbishment of the DNGS will result in shipments of Intermediate Level Waste and an increase in the number of used fuel bundles that require storage in dry storage containers at the DWMF. The DWMF has been storing waste since 2008 in two buildings which each have a capacity for 500 dry fuel storage structures. Two additional storage structures are planned to be built in the next licensing period, Used Fuel Dry Storage Structure 3 and 4.

2.2 Safety and Communication

Nuclear safety is of paramount importance to MSIFN. Almost every portion of the nuclear fuel lifecycle exists in our territory, excluding mining. Our community has been and will continue to be impacted by these activities, which did not exist prior to colonization. The responsibility of the CNSC and OPG to keep our community members safe must not be taken lightly as the DWMF site is less than 40km from MSIFN's reserve community.

We request that OPG proceed with activities that would reflect a collaborative planning process with MSIFN and other interested Williams Treaties First Nations, surrounding both safety/communications and environmental considerations. This request is outlined further in Section 3.1. Such a process would help to ensure that interested First Nations are regularly involved in the DWMF's planning and safety audit activities, and are fully aware of the results.

As an example of the need for this collaborative process, there are instances in the DWMF commission documents and EPR report which discuss aspects of facility operations that are of interest to our First Nation. For example, MSIFN is interested in staying engaged on plans regarding the disposal site for use fuel bundles and the anticipated timelines for used fuel repackaging, transportation, and operation for the new disposal site. It should be noted that the transfer of waste from the Darlington site elsewhere will have potentially harmful waste travelling quite close to MSIFN's reserve community, and through a large portion of the Williams Treaties First Nation's treaty territory. Safe planning for the transportation of waste is something MSIFN and OPG could collaborate on together.



We are also interested in ongoing conversations regarding the safety and security of Storage Buildings #1 and #2, as they hold dangerous amounts of high-level radioactive waste which is of concern to our First Nation. MSIFN is particularly concerned about human causes of external hazards such as the effects of harmful substances (e.g. explosive gases), blast waves caused by chemical explosions, fires spreading to the facility, aircraft crashes, and various terrorism threats. Any potential for collaboration around these items would be beneficial to both MSIFN and OPG/CNSC.

2.3 Ecology and Natural Areas

MSIFN acknowledges that the results of OPG's monitoring data in the EPR report show that contaminant releases to the aquatic environment are negligible, and do not pose a risk to Species at Risk or other aquatic biota. However, the location of the DWMF and its proximity to Lake Ontario and other nearby natural features is of significance.

Ontario's NHIC Map shows an unevaluated wetland to the north-west of the site, as well as numerous Species at Risk (Eastern Meadowlark, Bobolink, Least Bittern, Northern Bobwhite). MSIFN places great value on the natural environment, including watercourses, wetlands, Species at Risk, and all living relatives. We request that OPG continue to uphold the highest level of environmental standards and inform our First Nation how sensitive ecological areas nearby the DWMF site will be protected during operation, future used fuel repackaging and transportation, and decommissioning.

MSIFN appreciates that the results of OPG's various environmental monitoring programs show emissions and contamination levels below CNSC-approved license limits. However, there are still environmental risks and concerns associated with the DWMF related to the transport of waste, impacts to surface and ground water, and potential impacts to Species at Risk. For example, we understand that OPG is not required to continue stormwater monitoring under new CSA standards, but un-assessed stormwater directed into Lake Ontario may have negative effects on the environment as well as our rights and interests. We request that OPG exceed CSA standards to maintain stormwater and surface water monitoring on site. The relatively minor cost and requirements for routine stormwater and foundation monitoring at the DWMF will provide MSIFN and other Williams Treaties First Nations with ongoing operational assurance that stormwater and foundation drainage remain safe operational features of the DWMF.

In general, MSIFN is interested in potential involvement and staying updated about OPG's plans to uphold environmental standards and protection of significant ecological features near the DN site.



3.0 Requested Conditions of Approval

3.1 Consent from MSIFN

MSIFN and other Williams Treaties First Nations were never consulted by the Crown or facility operators when decisions were made to build and operate the Darlington Nuclear Generating Station or the DWMF, or most other facilities regulated by the CNSC in our treaty lands. Without ever having provided consent to these facilities and activities, our First Nation must now live with the resulting on-going risks on our territories today and for future generations.

We request that the Canadian Nuclear Safety Commission (CNSC) require OPG to secure MSIFN's consent for the DWMF before proceeding with project activities. Following the CNSC's decision regarding the license renewal, OPG should then engage in follow-up discussions with MSIFN regarding consent for the project moving forward, based in part on conditions of approval required by Commissioners.

3.2 OPG & MSIFN Leadership Meeting to Review International Best Practices

As mentioned, safety and security of nuclear waste storage is very important to MSIFN and our community members. We still have much uncertainty remaining around OPG's plans and current practices at the DWMF. OPG and CNSC staff should meet with MSIFN leadership to review and present a paper providing a comparison and contrast assessment of current international best practices for the management and storage of used nuclear fuel and other nuclear wastes at reactor sites with current practices at the DWMF. OPG should provide MSIFN with capacity funding to hire international experts to peer review the comparison and contrast assessment paper. This will allow MSIFN leadership to better assess the risks and potential impacts accidents, malfunctions and terrorist threats at the waste facility on the MSIFN community, and better understand OPG's standards.

3.3 Collaborative Planning

If the proposed license renewal is issued, a probable issue is that a ten-year time gap could lead to reduced communication around the DWMF site. We recommend that communication is enhanced through the creation of a collaborative planning process for lands within OPG Darlington's site control. This would be co-led by OPG, MSIFN, and other interested Williams Treaties First Nations. It is critical that OPG provides capacity funding to involved First Nations that will cover the participation, preparation, and follow up activities carried out by our staff, advisors, and Council members. MSIFN recommends that preliminary topics for this



collaborative planning process include safety, current and future site plans, and on-site environmental restoration.

3.4 Offsite Restoration Fund

As previously mentioned, MSIFN's territory is home to all stages of the nuclear life cycle, aside from mining. The legacy of this industry has had vast impacts on the lands and waters within our territory. Much of our land, including large expanses of Lake Ontario shoreline, have been taken up without our consent for nuclear facilities. Various proponents are beginning to take steps towards ecological rehabilitation and restoration within the area. However, a more coordinated approach between the various proponents would help to maximize benefits.

To further extend benefits of restoration activities, which could include both natural and cultural heritage projects, MSIFN asks OPG to support the creation of a restoration fund for lands and waters outside of Darlington site control. This could include funding projects that support the restoration of shorelines along Lake Ontario in partnership with First Nations, other governments, other CNSC regulated facility operators, and environmental groups, and could extend to support for First Nation led projects on lands beyond nuclear facilities. MSIFN understands from review of the EPR that OPG has already implemented an on-site biodiversity program at the DWMF and we appreciate being kept updated on such initiatives, and opportunities to collaborate.

This fund should be created with capacity building at the forefront by providing long term funding for projects, not only on a short-term grant cycle. With a preliminary commitment from OPG on this item, we can help to co-design this fund through the previously outlined collaborative planning process.

4.0 Conclusion

MSIFN emphasizes that the health and safety of our community members must be a key consideration if the Darlington Waste Management Facility license is to be renewed for the requested period. Impacts of the site on ecology of the immediate and connected areas must also be a priority, and we encourage OPG to look at ways that they can give back to the lands and waters on which their facilities exist and depend. To ensure that communication and collaboration is maintained and enhanced throughout the proposed license renewal period, we ask that OPG proceed with the creation of a collaborative planning process for lands within OPG's site control, and the creation of a restoration fund for other lands. We encourage OPG to continue improving their communication of safety measures taken on their sites to our



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leadership, staff, and members, and look towards strengthening these measures. Communication also extends to OPG staff training surrounding Indigenous cultures and treaties, and we look forward to discussions on this as part of the collaborative planning process outlined within this intervention.



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To the attention of:

Environmental Assessment Division
Canadian Nuclear Safety Commission

Kendra Warnock-Juteau
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Re: Environmental Protection Review Report: Darlington Waste Management Facility

Thank you for providing the opportunity to comment on the Environmental Protection Report (EPR) prepared by CNSC Staff for the Darlington Waste Management Facility. Comments on behalf of the Mississaugas of Scugog Island First Nation (MSIFN) are summarized below, with more detailed comments found in the matrix on subsequent pages.

Summary of Concerns/Comments

- **Health + Safety:** Nuclear safety is of paramount importance to MSIFN. Almost every portion of the nuclear fuel lifecycle exists in our territory, save and except for uranium mining. A safe and sustainable future for our community is of highest importance to MSIFN, as we have been, and will continue to be, impacted by industrial activities occurring since colonization. The responsibility of the CNSC and OPG to keep our community members safe must not be taken lightly, as the DWMF site is less than 40km from MSIFN's reserve community.
- **Consent:** MSIFN and other Williams Treaties First Nations were never consulted by the Crown or facility operators when decisions were made to build and operate the Darlington Nuclear Generating Station or the DWMF, or most other facilities regulated by the CNSC in our treaty lands. Without ever having provided consent to these facilities and activities, our First Nations must now live with on-going operational risks, risks from the storage of highly radioactive used nuclear fuel, risks from the transportation of hazardous nuclear substances in the vicinity of our communities, and risks from site/facility decommissioning. We do not have the option of relocating our treaty lands to avoid these risks to our treaty rights and community safety. We must live with these risks on our territories today and for future generations.
- **Impacts to the Environment:** It is appreciated that the results of OPG's various environmental monitoring programs show emissions and contamination levels below CNSC-approved license limits. However, there are still environmental risks and concerns associated with the DWMF related to the transport of waste, impacts to surface and ground water, and potential impacts to Species at Risk. MSIFN values the natural environment, including wetlands, watercourses, and all relatives. We request that OPG continue to uphold the highest level of environmental monitoring and go above CSA standards to maintain stormwater and surface water monitoring on site.



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- **Capacity support and participation:** MSIFN requests to be kept updated about all aspects of the DWMF project, including but not limited to environmental monitoring reports, annual compliance reports, and information regarding future plans and decommissioning. It is important that OPG and/or the CNSC provide adequate time and capacity support for MSIFN and other First Nations to review these documents if interested. We are also interested in potential collaboration around OPG's on-site biodiversity program and invasive species management activities, and request further information about these initiatives, and collaboration opportunities



Table 1. Comment Matrix

Section	Reference Text	Comment
Executive summary	<p><i>“Based on their assessment and evaluation of OPG’s documentation and data, CNSC staff have found that the potential risks from radiological and hazardous releases to the atmospheric, terrestrial, aquatic, and human environments from the DWMF are negligible. Furthermore, human health is not impacted by operations at the DWMF and is indistinguishable from health outcomes found in the general public.”</i></p>	<ul style="list-style-type: none"> MSIFN appreciates that the results of OPG’s environmental monitoring programs show emissions and contamination levels below CNSC-approved license limits. However, there are still risks and concerns related to the transport of waste, impacts to surface and ground water, and potential impacts to Species at Risk. It is unreasonable to conclude that DWMF’s impacts on human health and the environment are negligible, and we recommend clarifying this wording to represent the cumulative effects of the entire nuclear fuel cycle in our treaty lands, including the waste management operation, more accurately. MSIFN and other Williams Treaties First Nations were never consulted by the Crown or OPG legacy operators when decisions were made to build and operate the Darlington Nuclear Generating Station or the DWMF, or most other facilities regulated by the CNSC in our treaty lands. Without ever having provided consent to these facilities and activities, our First Nations must now live with on-going operational risks, risks from the transportation of hazardous nuclear substances in the vicinity of our communities, and risks from site decommissioning.
Section 1.2.2 Facility operations	<p><i>“The used fuel Storage Buildings #1 and #2 provide interim site storage for the used fuel bundles of the DNGS until a disposal site for used fuel bundles becomes operational. Both DSC Storage Buildings #1 and #2 have the capacity to hold up to 500 DSCs, equivalent to roughly 9 years of operation for the DNGS.”</i></p>	<ul style="list-style-type: none"> MSIFN requests to be kept updated on plans regarding the disposal site for use fuel bundles and what the anticipated timelines for used fuel repackaging, transportation, and operation might be. MSIFN also requests additional information regarding the safety and security of Storage Buildings #1 and #2 as they hold dangerous amounts of high-level radioactive waste. Safety is of utmost importance to our community, and we request a plan for if either of the Storage Buildings are damaged or breached on site. MSIFN is particularly concerned about human causes of external hazards such as the effects of harmful substances (e.g. explosive gases), blast waves caused by chemical explosions, fires spreading to



Section	Reference Text	Comment
		the facility, aircraft crashes, and various terrorism threats.
	<i>“The RWSB stores intermediate-level wastes from the Darlington Refurbishment Project. The low-level and intermediate-level radioactive waste that is produced from the DN site is transferred to the Western Waste Management Facility (WWMF) located on the Bruce Nuclear Generating Station site in Tiverton, Ontario.”</i>	<ul style="list-style-type: none"> It should be noted that the transfer of waste from the Darlington site to the WWMF in Tiverton will have the waste travelling from Lake Ontario to Lake Huron. This means that potentially harmful waste will travel quite close to MSIFN’s reserve community, and through a large portion of the Williams Treaties First Nation’s treaty territory. As per the above comment, we request further information regarding the safe planning for storage and transportation of waste from the DWMF, including the human causes of external hazards for storage and transportation listed above.
Section 2.2 Planned end-state	<i>“Decommissioning of the DWMF is planned to occur concurrently with the decommissioning of the DNGS and the facility site will be restored to a similar state in nature to that of the DNGS site, making it suitable for other OPG uses.”</i>	<ul style="list-style-type: none"> The description of the decommissioning plans for the DWMF is quite vague and does not allow us to properly assess the long-term impacts of the project. For example, <i>“the facility site will be restored to a similar state in nature to that of the DNGS site, making it suitable for other OPG uses.”</i> More detail is needed here to explain what a similar state to the DNGS site would look like, and what potential other OPG uses could be in the future.
Section 2.3 Environmental regulatory framework and protection measures	<i>“OPG submits quarterly operation reports for the DWMF and the fourth quarter report for each year also serves as an annual compliance report. CNSC staff review these annual compliance reports (ACRs) and annual environmental monitoring program reports for compliance and verification, as well as trending.”</i>	<ul style="list-style-type: none"> MSIFN requests receipt of annual compliance reports to assist CNSC staff in their review for compliance and verification. It is important that OPG and/or the CNSC provide First Nations with capacity support to review reports, or have experts review on their behalf if interested.



Section	Reference Text	Comment
<p>Section 3.2.2</p> <p>Aquatic environment</p>	<p><i>“Stormwater and foundation drainage from the DWMF were monitored weekly for tritium and gross gamma and results were consistently below the administrative levels. Based on the monitoring data, releases of COPCs from the DWMF to the aquatic environment and negligible and do not pose a risk to the aquatic environment, including aquatic biota and species at risk.”</i></p>	<ul style="list-style-type: none"> MSIFN acknowledges that the results of OPG’s monitoring data show that contaminant releases to the aquatic environment are negligible, and do not pose a risk to Species at Risk or other aquatic biota. However, the location of the DWMF and its proximity to Lake Ontario and other nearby natural features is of significance. Ontario’s NHIC Map shows an unevaluated wetland to the north-west of the site, as well as numerous Species at Risk (Eastern Meadowlark, Bobolink, Least Bittern, Northern Bobwhite). MSIFN places great value on the natural environment, including watercourses, wetlands, Species at Risk, and all living relatives. We request that OPG continue to uphold the highest level of environmental standards and inform our First Nation how sensitive ecological areas nearby the DWMF site will be protected during operation, future used fuel repackaging and transportation, and decommissioning.
<p>Section 3.2.2.2</p> <p>Surface water</p>	<p><i>“In the developed areas of the DN site, stormwater is collected in ditches and storm drains and then directed into Lake Ontario. There is a stormwater pond associated with the DWMF; however, recent assessments of stormwater and foundation drainage monitoring at the facility identified that routine monitoring is not required per the CSA N288 series of standards. Therefore, OPG discontinued routine stormwater and foundation monitoring at the DWMF in early 2022.”</i></p>	<ul style="list-style-type: none"> MSIFN requests further explanation as to why routine stormwater and foundation monitoring have been discontinued at the DWMF. We understand that OPG is not required to continue monitoring under CSA standards, but un-assessed stormwater directed into Lake Ontario may have negative effects on the environment as well as our rights and interests. We request that OPG exceed CSA standards to maintain stormwater and surface water monitoring on site. The relatively minor cost and requirements for routine stormwater and foundation monitoring at the DWMF will provide MSIFN and other Williams Treaties First Nations with ongoing operational assurance that stormwater and foundation drainage remain safe operational features of the DWMF.



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Section	Reference Text	Comment
Section 3.2.3.1 Terrestrial habitat and species	<i>“OPG has implemented an extensive biodiversity program at the DN site, which encompasses the DNGS and the DWMF. The biodiversity program at the DN site was first implemented in 1997 and annual biodiversity monitoring program reports are produced for the site. The purpose of the program is to aid in protecting ecologically significant areas, rebuilding damaged habitats, and recovering at-risk species in Ontario habitats.”</i>	<ul style="list-style-type: none"> MSIFN may be interested in involvement in biodiversity programs either on or off the DWMF site. Ecology and the natural environment are of great importance to our First Nation, and we appreciate being kept updated on such initiatives, and opportunities to collaborate.
Section 4.2.1 Sampling with Curve Lake First Nation	<i>“Curve Lake First Nation joined CNSC staff for a day to observe the IEMP sampling campaign for the DN site. During sampling, representatives of Curve Lake First Nation observed that the area surrounding the DN site was developed and disturbed. Curve Lake First Nation representatives also observed that there was a mixture of both native and invasive plant species along the shoreline of Lake Ontario and at other sampling locations, causing difficulty in categorizing plant community types.”</i>	<ul style="list-style-type: none"> We appreciate learning that Curve Lake First Nation joined CNSC staff on site to observe the IEMP sampling campaign and analyze plant communities on the Lake Ontario shoreline. MSIFN is interested in potential involvement around invasive species management initiatives, and requests information on OPG’s plans to prevent invasive species from migrating off site.

Sincerely,

MSIFN Consultation Office

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