



# Record of Decision

DEC 25-H101

In the Matter of

Applicant Ontario Power Generation Inc.

Subject Application to Amend the Pickering Waste Management Facility (PWMF) Licence to Authorize Construction and Operation of the Pickering Component Storage Structure

Summary  
Record of  
Decision Date July 24, 2025

Detailed  
Record of  
Decision Date December 19, 2025

**RECORD OF DECISION – DEC 25-H101**

Applicant: Ontario Power Generation Inc.

Address/Location: 700 University Avenue, Toronto, Ontario, M5G 1X6

Purpose: Application to Amend the Pickering Waste Management Facility (PWMF) Licence to Authorize Construction and Operation of the Pickering Component Storage Structure

Application received: May 31, 2024

Hearing: *Notice of Hearing in Writing and Participant Funding*  
published on September 18, 2024  
*Revised Notice of Hearing in Writing and Participant Funding*  
published on February 17, 2025

Summary Record of Decision Date: July 24, 2025

Detailed Record of Decision Date: December 19, 2025

Panel of Commission: P. Tremblay

**Licence: Amended**

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## 1.0 INTRODUCTION

1. On [May 31, 2024](#), Ontario Power Generation Inc. (OPG) applied to the Canadian Nuclear Safety Commission<sup>1</sup> (CNSC) to amend the licence for the [Pickering Waste Management Facility](#) (PWMF) Waste Facility Operating Licence (WFOL) in order to authorize the construction and operation of a new structure to be known as the Pickering Component Storage Structure (PCSS).<sup>2</sup> This structure is intended for the storage of low- and intermediate-level radioactive waste (L&ILW) resulting from potential refurbishment<sup>3</sup> activities of [Pickering Nuclear Generating Station](#) (NGS) Units 5-8, as well as future Pickering NGS Units 1-4 decommissioning activities.
2. The PWMF is a Class IB nuclear facility, located in the city of Pickering, Ontario, and within the traditional lands and waters of the Michi Saagiig Anishinaabeg, the Gunshot Treaty (1787-88), the Williams Treaties (1923), and the Williams Treaties Settlement Agreement (2018). The current licence, WFOL-W4-350.00/2028, expires on August 31, 2028. On July 24, 2025, the Commission amended the licence for the PWMF and issued a [Summary Record of Decision](#).<sup>4</sup> This detailed *Record of Decision* does not replace that decision but provides the reasons for that decision.

### Issues

3. In considering OPG's licence amendment application, the Commission is first required to determine whether any requirements of the [Impact Assessment Act](#)<sup>5</sup> (IAA) apply to OPG's licence amendment such that an impact assessment is triggered. Satisfying any such requirements can be a prerequisite to a licensing decision.
4. Pursuant to paragraphs 24(4)(a) and (b) of the [Nuclear Safety and Control Act](#)<sup>6</sup> (NSCA), in order to amend the licence as applied for, the Commission must be satisfied that:
  - a) OPG is qualified to carry on the activity that the amended licence would authorize
  - b) in carrying on that activity, OPG would make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed

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<sup>1</sup> The *Canadian Nuclear Safety Commission* is referred to as the "CNSC" when referring to the organization and its staff in general, and as the "Commission" when referring to the tribunal component.

<sup>2</sup> The construction and operation of the proposed PCSS is not within the current licensing basis, nor does it fall under existing conditions of the PWMF licence for construction of additional waste storage buildings.

<sup>3</sup> OPG must submit a separate application requesting authorization from the Commission to perform refurbishment activities.

<sup>4</sup> Summary Record of Decision DEC 25-H101, *Application to Amend the Pickering Waste Management Facility (PWMF) Licence to Authorize Construction and Operation of the Pickering Component Storage Structure*, July 24, 2025.

<sup>5</sup> S.C. 2019, c. 28, s. 1.

<sup>6</sup> S.C. 1997, c. 9.

5. As an agent of the Crown, the Commission recognizes its role in fulfilling the Crown's constitutional obligations, along with advancing reconciliation with Canada's Indigenous peoples. The Commission's responsibilities include the duty to consult and, where appropriate, accommodate Indigenous interests where the Crown contemplates conduct which may adversely impact potential or established Aboriginal<sup>7</sup> or treaty rights.<sup>8</sup> As such, the Commission must determine what engagement and consultation steps and accommodation measures are called for, respecting Indigenous interests and whether what has been done satisfies the obligation of consultation and, where appropriate, accommodation of implicated Aboriginal or treaty rights. A determination, of what the duty to consult and accommodate requires, is informed by the principles and the provisions of the [\*United Nations Declaration on the Rights of Indigenous Peoples\*](#)<sup>9</sup> (UNDRIP), as a result of its adoption into Canadian law via the [\*United Nations Declaration on the Rights of Indigenous Peoples Act\*](#)<sup>10</sup> (UNDA).<sup>11</sup> Where the duty to consult is triggered, the Commission must be satisfied that the duty to consult has been met prior to making its licensing decision.

#### Public Hearing in Writing

6. On September 18, 2024, the Commission published [\*Notice of Hearing in Writing and Participant Funding\*](#)<sup>12</sup> for this matter, which invited requests to intervene by February 28, 2025. On February 17, 2025, the Commission published a [\*Revised Notice of Hearing in Writing and Participant Funding\*](#)<sup>13</sup> to announce an extension to the dates for filing submissions.
7. The President of the Commission established himself as a Panel of the Commission to consider the application.<sup>14</sup> The Commission, in conducting a public hearing based on written materials, considered written submissions from OPG ([\*Application, CMD 25-H101.1\*](#)) and CNSC staff ([\*CMD 25-H101\*](#)). The Commission also considered written submissions from 9 intervenors (see Appendix A for a list of interventions). A [\*Summary Record of Decision\*](#) was issued on July 24, 2025.
8. In determining whether a public hearing will be an oral hearing or a hearing in writing, the Commission is guided by the direction of the NSCA that "all proceedings before the Commission must be dealt with as informally and expeditiously as the circumstances and considerations of fairness permit",<sup>15</sup> and it considers such things as whether the proposed

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<sup>7</sup> "Aboriginal" is the term used in this document when referring to the Crown's duty to consult as that is the term used in s. 35 of the Constitution Act, 1982. In all other cases, "Indigenous" is the preferred terminology and used accordingly.

<sup>8</sup> *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73; *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director)*, 2004 SCC 74.

<sup>9</sup> United Nations Declaration on the Rights of Indigenous Peoples, United Nations, September 2007.

<sup>10</sup> S.C. 2021, c. 14.

<sup>11</sup> *Kebaowek First Nation v. Canadian Nuclear Laboratories*, 2025 FC 319.

<sup>12</sup> *Notice of Hearing in Writing and Participant Funding*, CNSC, September 18, 2024.

<sup>13</sup> *Revised Notice of Hearing in Writing and Participant Funding*, CNSC, February 17, 2025.

<sup>14</sup> Pursuant to Section 22 of the NSCA.

<sup>15</sup> Subsection 20(3).

licensing action would authorize new or different activities or take novel or controversial approaches, the complexity of the matter under consideration, the proposed timing and steps in the lifecycle of the facility or operation, and the level and degree of likely or anticipated participation from intervenors. For this matter, given the low safety significance of the application, the Commission determined that a hearing in writing would be appropriate.

#### Confidentiality Request

9. OPG submitted 1 [request for confidentiality](#), in accordance with subrule 12(1) of the [Canadian Nuclear Safety Commission Rules of Procedure](#) (the *Rules*).<sup>16</sup> The request included a redacted report entitled “*Pickering Component Storage Structure Safety Assessment*”<sup>17</sup> (Enclosure 1 of OPG’s application).
10. The Commission is satisfied that:
  - the information in Enclosure 1 is of a confidential financial, scientific, and technical nature, and that affected vendor partners have not consented to its disclosure<sup>18</sup>
  - the need to protect this information outweighs the public interest in disclosure, and the confidentiality measures are appropriately limited to preserve the proceeding’s public character<sup>19</sup>
11. Therefore, applying subrules 12(3)(b) and 12(3)(c) of the *Rules*, the Commission orders that the publication or disclosure of the *Pickering Component Storage Structure Safety Assessment* be prohibited.

#### CNSC Participant Funding Program

12. The Commission has established a Participant Funding Program (PFP) to facilitate the participation of Indigenous Nations and communities, members of the public and interested parties in Commission proceedings.<sup>20</sup> In September 2024, up to \$75,000 in funding to participate in this hearing process was made available through the CNSC’s PFP. A Funding Review Committee (FRC), independent of the CNSC, reviewed the funding applications received and made recommendations on the allocation of funds. Based on the recommendations from the FRC, the CNSC [awarded a total of \\$51,920.00 to 3 applicants](#).

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<sup>16</sup> SOR/2000-211.

<sup>17</sup> Pickering Component Storage Structure Safety Assessment, 92896-REP-01320-00019 R002.

<sup>18</sup> Pursuant to subrule 12(1)(b) of the *Rules*.

<sup>19</sup> Pursuant to subrules 12(2)(a) and 12(2)(b) of the *Rules*.

<sup>20</sup> Pursuant to paragraph 21(1) (b.1) of the NSCA.

### Hearing Scope

13. Some intervenors expressed the view that OPG's application for the construction and operation of the PCSS should be linked to future potential refurbishment activities at the Pickering NGS, rather than being considered separately. The licence amendment before the Commission pertains solely to the construction and operation of the PCSS. This application is not predicated on, nor does it authorize, the future refurbishment or extended operation of the Pickering NGS. Should OPG submit a separate application to refurbish or extend the life of the Pickering NGS, such an application would be subject to its own licensing process, including a public Commission hearing.

## **2.0 DECISION**

14. The Commission amends<sup>21</sup> the waste facility operating licence WFOL-W4-350.00/2028 issued to OPG for its PWMF located in Pickering, Ontario. The amended licence, WFOL-W4-350.01/2028, remains valid until August 31, 2028.
15. The decision by the Commission was made based on its consideration of this matter and the following conclusions:
  - an impact assessment under the IAA is not required
  - the contemplated licence amendment is unlikely to cause new adverse impacts to the exercise of potential or established Indigenous and/or Treaty rights as it would not change the PWMF site characterization or lead to new impacts
  - the Commission's responsibility to uphold the honour of the Crown and its constitutional obligations with regards to engagement and consultation respecting Indigenous interests has been satisfied
  - OPG is qualified to carry on the activity that the amended licence will authorize
  - OPG, in carrying out that activity, will make adequate provision for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed
16. The Commission includes in the licence the conditions recommended by CNSC staff.<sup>22</sup> Specifically, the Commission:
  - amends licence WFOL-W4-350.00/2028, paragraph (iv) of Part IV for Licensed Activities to:

*“(iv) carry out the site preparation, construction, or construction modifications at the facility associated with the authorized low & intermediate level waste storage building, and authorized additional used fuel processing and storage buildings, when completion will result in a total of no more than 1 low & intermediate-level*

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<sup>21</sup> Pursuant to Section 24 of the NSCA.

<sup>22</sup> CMD 25-H101, Section “Proposed Licence Changes,” page 60.

*waste storage building, 1 dry storage container processing building, and 6 used fuel dry storage buildings;”*

- amends WFOL-W4-350.00/2028 licence condition 15.1 to:

*“The licensee shall not carry out the activities referred to in paragraph (iv) of Part IV of this licence without the submission of an environmental management plan, a construction verification plan, and the project design requirements, and without prior written acceptance from the Commission or a person authorized by the Commission.”*

17. The Commission delegates authority for the administration of licence condition 15.1 to the following CNSC staff:
  - Director, Wastes and Decommissioning Division
  - Director General, Directorate of Nuclear Cycle and Facilities Regulations
  - Executive Vice-President and Chief Regulatory Operations Officer, Regulatory Operations Branch
18. With this decision, the Commission directs CNSC staff to update the licence conditions handbook (LCH) for the PWMF as described in Part 2 of CMD 25-H101.

### **3.0 ISSUES AND COMMISSION FINDINGS**

19. In making its decision, the Commission considered a number of relevant issues and submissions relating to OPG’s qualification to carry out the activity the amended licence would authorize. The Commission also considered the adequacy of OPG’s proposed measures for protecting the environment, the health and safety of persons, national security and international obligations to which Canada has agreed.
20. The Commission’s analyses for its decision in this matter are set out within the following sections of this *Record of Decision*:
  - Section 3.1 Assessment of the Licence Amendment Application
  - Section 3.2 Applicability of the *Impact Assessment Act*
  - Section 3.3 Summary of Views of Hearing Participants
  - Section 3.4 OPG’s Safety and Control Measures with Respect to the Safety and Control Areas
  - Section 3.5 Indigenous Engagement and Consultation
  - Section 3.6 Other Matters of Regulatory Importance
  - Section 3.7 Licence Amendment



### 3.1 Assessment of the Licence Amendment Application

21. In order to be complete, OPG's licence application must meet the requirements of the NSCA, the [\*General Nuclear Safety and Control Regulations\*](#) (GNSCR),<sup>23</sup> and other applicable regulations made under the NSCA. The Commission examined the sufficiency of OPG's application.
22. The Commission's review of OPG's application to amend its licence is in accordance with the GNSCR,<sup>24</sup> which outlines the required elements for such an application. Briefly, these include a description of the proposed changes, identification of relevant updates, a summary of affected facilities and systems, and the timeline for modifications. In addition, the GNSCR states that an application for a licence or for the renewal, suspension in whole or in part, amendment, revocation or replacement of a licence may incorporate by reference any information that is included in a valid, expired or revoked licence.<sup>25</sup>
23. OPG provided a clause-by-clause explanation of how its application satisfies the requirements of the NSCA, the GNSCR, and other applicable regulations made under the NSCA.<sup>26</sup>
24. CNSC staff submitted detailed information on its review<sup>27</sup> of OPG's application under Sections 3 and 6 of the GNSCR and Sections 3, 5, and 6 of the [\*Class I Nuclear Facilities Regulations\*](#)<sup>28</sup> (CINFR).
25. The Commission concludes that OPG's application for a licence amendment to carry out site preparation, construction, or construction modifications at the PWMF is complete and complies with regulatory requirements. It also includes sufficient information to support a decision on the proposed licence amendment, pursuant to subsection 24(2) of the NSCA.

### 3.2 Applicability of the *Impact Assessment Act*

26. In coming to its decision, the Commission is first required to determine whether any requirements under the IAA apply to the application and whether an impact assessment is required.

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<sup>23</sup> SOR/2000-202.

<sup>24</sup> Section 6 of the GNSCR.

<sup>25</sup> Section 7 of the GNSCR.

<sup>26</sup> CMD 25-H101.1, Attachment 1.

<sup>27</sup> CMD 25-H101, Section A.

<sup>28</sup> SOR/2000-204.

27. Under the IAA and its [\*Physical Activities Regulations\*](#),<sup>29</sup> impact assessments are required for projects with significant potential for adverse environmental effects in areas of federal jurisdiction. The proposed amendment to the PWMF licence does not involve activities listed in the Regulations or meet the definition of a project on federal lands.
28. The Commission concludes that there is no requirement under the IAA for an impact assessment to be completed. The Commission is also satisfied that there are no other applicable requirements of the IAA to be addressed in this matter.<sup>30</sup>

### 3.3 Summary of Views of Hearing Participants

29. In its consideration of OPG's licence amendment application, the Commission carefully considered all submissions and perspectives received, in accordance with its mandate and the scope of this public hearing in writing. The Commission appreciates the efforts and contributions of all participants.
30. OPG provided a summary of its position with respect to its application,<sup>31</sup> including that:
  - OPG confirms that the construction and operation of the PCSS will be implemented based on a robust safety case
  - the proposed activities to support the construction and operation of the PCSS will not compromise continued safe operation at PWMF nor the public and employee safety, and environmental protection
  - the operation of the PCSS and storage of L&ILW components will have a negligible effect on the safe operation, public and worker safety
  - the construction and operation of the PCSS will have negligible impact on the environment
  - the construction and operation of the PCSS will have a negligible impact on PWMF's licensing basis, governance, programs, and processes
  - the construction and operation of the PCSS is not expected to give rise to any novel adverse impacts on Aboriginal and/or Treaty rights
31. CNSC staff recommended that the Commission amend WFOL-W4-350.00/2028 to authorize OPG to construct and operate the PCSS. CNSC staff assessed the following:
  - OPG has demonstrated that design considerations for the construction of the proposed PCSS meet regulatory requirements
  - OPG has adequately assessed the hazards associated with proposed activities through safety assessments and demonstrated an adequate level of protection of the workers, the public, and the environment

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<sup>29</sup> SOR/2019-285.

<sup>30</sup> The IAA can impose other requirements on federal authorities in respect of authorizing projects that are not designated as requiring an impact assessment, including projects that are to be carried out on federal lands, or projects outside of Canada. This licence amendment does not engage any such applicable IAA requirements.

<sup>31</sup> CMD 25-H101.1, Attachment 2, Section 5.0.

- OPG remains qualified to carry on the activities authorized in the WFOL and continues to make provision for the protection of workers, people, and the environment<sup>32</sup>
32. The Commission received 9 interventions for this hearing. Intervenors expressed views on the following issues:
- concerns regarding the consideration of OPG's current application separately from future refurbishment activities at the Pickering NGS
  - concerns regarding the "Public Hearing in Writing" process
  - the absence of relevant Waste Acceptance Criteria specific to the PCSS and PWMF
  - the lack of detail regarding the nature and characteristics of the waste to be stored at the PCSS
  - the lack of a finalized design for the PCSS
  - concerns regarding the uncertainty surrounding the long-term management plan for nuclear waste
  - the potential increased risk of exposure to radiation for workers and the public due to refurbishment and waste handling
  - concerns regarding the delegation of authority for the administration of licence conditions
  - concerns about OPG's public communications in relation to the application
33. The following issues were raised regarding consultation and engagement with Indigenous Nations and communities:
- comments and recommendations regarding the application of UNDRIP and its provision for free, prior and informed consent (FPIC), and implementation of the UNDA Action Plan
  - OPG's use of outdated atmospheric dispersion models in its Predictive Environmental Risk Assessment (PERA)
  - uncertainty regarding the long-term management of radioactive waste
  - historical impacts from the original siting and development of the Pickering NGS
34. The issues raised by hearing participants, and their bearing on the deliberations of the Commission, are discussed in the appropriate subject-specific sections of this *Record of Decision*. Issues raised by Indigenous Nations and communities are detailed in Section 3.5.3 of this *Record of Decision*.

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<sup>32</sup> CMD 25-H101, Section 6.

### **3.4 OPG's Safety and Control Measures with Respect to the Safety and Control Areas**

35. The Commission examined OPG's proposed safety and control measures with respect to OPG's request to construct and operate the proposed PCSS at the PWMF. The Commission's evaluation includes consideration of the safety and control measures of relevance to the application, including:<sup>33</sup>
- Operating Performance
  - Safety Analysis
  - Physical Design
  - Fitness for Service
  - Radiation Protection
  - Environmental Protection
  - Waste Management
36. OPG provided an assessment of the proposed new activities on the licensing basis for each of the PWMF WFOL Safety and Control Area (SCA).<sup>34</sup> OPG addressed how the PCSS fits into and is managed by OPG's established safety and control framework, demonstrating that its addition will have minimal impact on existing safety and operational protocols. OPG submitted that it maintains responsibility for the continued safe operation of the PWMF and affirmed that all modifications pertaining to the construction and operation of the PCSS would be performed in accordance with its safety case and its Engineering Change Control (ECC) process.
37. CNSC staff submitted that it would continue to monitor OPG's performance and compliance in all aspects of SCAs through regulatory oversight activities, including inspections and desktop reviews of relevant program documentation.

#### *3.4.1 Operating Performance*

38. Operating performance includes an overall review of the conduct of the licensed activities and the activities that enable effective performance at the PWMF. OPG's current licence includes 2 conditions related to the operating performance SCA:
- Licence condition 3.1, which requires OPG to implement and maintain an operations program, which includes a set of operating limits
  - Licence condition 3.2, which requires OPG to implement and maintain a program for reporting to the Commission or a person authorized by the Commission

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<sup>33</sup> CMD 25-H101, Section 3.

<sup>34</sup> CMD 25-H101.1, Attachment 2, Section 2.0.

39. The CINFR provide that an application for a licence to operate a Class I nuclear facility must include information on the proposed measures, policies, methods and procedures for operating and maintaining the nuclear facility.<sup>35</sup>
40. [REGDOC-3.1.2, Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills](#)<sup>36</sup> sets out requirements and guidance for reports and notifications that licensees of Class I nuclear facilities (excluding power reactors) must submit to the CNSC.
41. OPG submitted information regarding the applicability of its operating performance program to the proposed licence amendment,<sup>37</sup> covering the following areas:
- Operating performance
  - Reporting requirements
  - Quarterly and annual operational reporting
42. OPG submitted that Operations and Maintenance activities for the PCSS would be carried out in alignment with the PWMF Operating Policies and Principles (OP&Ps), and under the requirements of the operating licence to be granted by the CNSC. While OPG noted that no unique aspects of the PCSS warrant significant changes to the existing operating performance framework, it identified licensing basis documents that require updates to reflect the addition of the PCSS, including:
- Operating Policies and Principles, Pickering Waste Management Facility: the PCSS will be included in the scope and identified as part of the PWMF OP&Ps prior to its operations
  - Pickering Waste Management Facility – Safety Report: the PCSS will be included at the time of the next scheduled review in 2028
- OPG noted that the proposal would have no impact on its Reporting Requirements program and its licensing basis documents.
43. CNSC staff submitted its assessment of OPG's performance related to the operating performance SCA covering the following specific areas:<sup>38</sup>
- Conduct of licensed activity
  - Procedures
  - Reporting and trending

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<sup>35</sup> Paragraph 6(d).

<sup>36</sup> CNSC Regulatory Document, REGDOC-3.1.2, *Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills*, Version 1.1, July 2022.

<sup>37</sup> CMD 25-H101.1, Attachment 2, Section 2.3.

<sup>38</sup> CMD 25-H101, Section 3.1.

44. CNSC staff submitted that the current licence authorizes OPG to construct two dry storage container storage buildings (SB)<sup>39</sup> under specific conditions requiring pre-construction and operation documentation, and that OPG has committed to submitting equivalent documents for the proposed PCSS should the licence be amended, ensuring alignment with the existing licence conditions.<sup>40</sup> CNSC staff reported that OPG committed to submitting the following:
- OPG will provide to CNSC staff for review and acceptance by the Commission, or a person authorized by the Commission, a document package (DP) containing the design requirements, environmental management plan, and construction verification plan in accordance with licence condition 15.1<sup>41</sup>
  - OPG will provide to CNSC staff for their review and acceptance by the Commission, or a person authorized by the Commission, a final commissioning report in accordance with licence condition 15.2<sup>42</sup>
45. OPG further committed to updating the licensing basis document Preliminary Decommissioning Plan – Pickering Waste Management Facility and the associated Financial Guarantee (FG) at the time of the next scheduled FG submission in 2027.<sup>43</sup> Details pertaining to Preliminary Decommissioning Plan and FG are further discussed in Section 3.6.2 of this *Record of Decision*.
46. Regarding OPG’s Waste Acceptance Criteria (WAC), the Coalition for Responsible Energy Development in New Brunswick ([CMD 25-H101.6](#)), Juan Pedro Unger ([CMD 25-H101.7](#)), and Northwatch ([CMD 25-H101.10](#)) expressed concerns about the absence of a WAC specific to the PCSS and PWMF. In its submission, CNSC staff reported that:
- OPG committed to developing a WAC based on operating experience and bounded by criteria in OPG’s safety assessment for this application where the WAC in place at another OPG WMFs undertaking similar activities was considered. The WAC will be informed by OPG’s extensive experience at other waste management facilities [Darlington Waste Management Facility (DWMF) and Western Waste Management Facility (WWMF)], where similar waste types are managed safely and effectively<sup>44</sup>
  - as part of licence condition 15.2 regarding commissioning, CNSC staff will verify that the WAC meets regulatory requirements and is consistent with the PCSS safety assessment<sup>45</sup>

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<sup>39</sup> SB#5 and SB#6.

<sup>40</sup> CMD 25-H101, Section 1.3.

<sup>41</sup> CMD 25-H101.1, Attachment 2, Section 2.15.1.

<sup>42</sup> CMD 25-H101.1, Attachment 2, Section 2.15.2.

<sup>43</sup> In line with the PWMF licence conditions handbook requirement that procedures remain current, reviewed, and updated. CMD 25-H101, Section 3.1.1.

<sup>44</sup> CMD 25-H101, Section 3.1.1.

<sup>45</sup> CMD 25-H101, Section 3.7.1.

47. Based on OPG's application, supporting documents, and past performance during the current licence period, CNSC staff assessed that:
- OPG adequately assessed the impacts of the proposed licence amendment upon the operating performance SCA
  - OPG met the applicable regulatory requirements under the operating performance SCA and that there are no improvements proposed for this SCA during the proposed licence period
  - OPG's operating program is adequate for the proposed licence amendment
48. Based on the information on the record, the Commission concludes that OPG has an operations program in place to accommodate the conduct of the licensed activities that the proposed licensing basis amendment would authorize. The Commission bases its conclusion on the following:
- OPG currently has a nuclear operations program in place that meets regulatory requirements, including REGDOC-3.1.2
  - OPG has a process in place to develop and manage changes to procedures to support the safe operations and maintenance of the PWMF, in accordance with the requirements set out in the LCH
  - the WAC are bounded by criteria in OPG's safety assessment for this application
  - CNSC staff will verify that the WAC meets regulatory requirements and is consistent with the PCSS safety assessment

#### *3.4.2 Safety Analysis*

49. The safety analysis SCA covers the maintenance of the safety analysis that supports the overall safety case for the facility. Safety analysis is a systematic evaluation of the potential hazards associated with the conduct of a proposed activity or facility and considers the effectiveness of preventative measures and strategies in reducing the effects of such hazards. Licence condition 4.1 of the current licence requires OPG to implement and maintain a safety analysis program.
50. The GNSCR require that an applicant provides a description and the results of any test, analysis or calculation performed to substantiate the information included in the application.<sup>46</sup>
51. The CINFR require that an application for a licence to operate include:
- a description of the structures at the nuclear facility, including their design and their design operating conditions<sup>47</sup>

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<sup>46</sup> Paragraph 3(1)(i).

<sup>47</sup> Paragraph 6(a).

- a description of the systems and equipment at the nuclear facility, including their design and their design operating conditions<sup>48</sup>
  - a final safety analysis report (SAR)<sup>49</sup>
52. [REGDOC-2.4.4, Safety Analysis for Class IB Nuclear facilities](#)<sup>50</sup> sets out requirements and provides guidance for applicants and licensees on how to demonstrate the safety of a Class IB nuclear facility, including information relating to the safety analysis program, the conduct of a safety analysis, and safety analysis documents, records and reporting.
53. OPG provided information on its safety analysis program and how it applies to the proposed licence amendment,<sup>51</sup> covering the following areas:
- Safety analysis program
  - Safety analysis
54. OPG reported that:
- the preliminary safety assessment demonstrates compliance with the radiation safety requirements during normal operation of the PCSS, based on several recommendations to guide the detailed design of the structure
  - the annual public dose estimate accounting for the addition of the PCSS with the most favorable design option is a small percentage<sup>52,53</sup> of the 1 millisievert per year (mSv/y) public dose limit<sup>54</sup> and meets the 100 microsieverts per year (µSv/y) target for the PWMF
  - OPG conducted PCSS safety assessments in compliance with applicable requirements<sup>55</sup>

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<sup>48</sup> Paragraph 6(b).

<sup>49</sup> Paragraph 6(c).

<sup>50</sup> CNSC Regulatory Document, REGDOC-2.4.4, *Safety Analysis for Class IB Nuclear facilities*, October 2022.

<sup>51</sup> CMD 25-H101.1, Attachment 2, Section 2.4.

<sup>52</sup> OPG's preliminary estimate of the total dose from the PCSS to members of the public at the most conservative public dose point was calculated at 35 µSv/y (3.5 % of the regulatory limit on annual dose to members of the public), based on the SAR methodology assumptions. CMD 25-H101.1, Enclosure 1, Section 5.1.

<sup>53</sup> OPG also estimated a total dose of 0.57 µSv/y for the Sport Fisher from the current Pickering NGS and PWMF operations, and the PCSS (0.06% of the regulatory limit on annual dose to members of the public). CMD 25-H101.1, Enclosure 2, Section 8.1.

<sup>54</sup> Under the *Radiation Protection Regulations*, the regulatory limit for the dose to a member of the public is 1 mSv/y.

<sup>55</sup> List of safety analysis program related regulatory requirements, include:

- Canadian Standards Association N292.0, *General principles for the management of radioactive waste and irradiated fuel*, CSA Group, 2014.
- Canadian Standards Association N292.2, *Interim dry storage of irradiated fuel*, CSA Group, 2013.
- Canadian Standards Association N292.3, *Management of low- and intermediate level radioactive waste*, CSA Group, 2014.
- Canadian Standards Association N286.7, *Quality assurance of analytical, scientific, and design computer programs*, CSA Group, 2016.



- dose consequences to workers and members of the public following credible postulated malfunction/accident scenarios will meet all acceptance criteria<sup>56</sup>
  - OPG committed to updating the safety analysis with the final design requirements of the PCSS, with the updated documentation to be submitted to CNSC staff ahead of the construction start date
  - the proposal will have no impact on the PWMF's safety analysis licensing basis document Reactor Safety Program
55. CNSC staff submitted its assessment of OPG's performance related to the safety analysis SCA covering the following specific areas:<sup>57</sup>
- Deterministic safety analysis
  - Hazard analysis
56. CNSC staff reported that:
- OPG submitted the latest revision of the SAR in November 2023<sup>58</sup>
  - OPG's safety report provides an assessment of potential consequences and demonstrates the safety case through defence in depth
  - OPG evaluated the potential effects of the proposed licensed activities and conducted re-analyses as necessary, and confirmed that the results remain unchanged
  - the safety assessment results align with OPG's previous work at WWMF, with no notable changes in safety parameters during normal operations compared to authorized activities
  - OPG evaluated its safety analysis program against the updated regulatory requirements outlined in REGDOC-2.4.4, and is working toward full compliance with complete implementation expected by December, 2028
  - OPG will submit supporting information to CNSC staff on the negligible risk of soil liquefaction, which will be reviewed prior to staff making a recommendation to commence construction activities under licence condition 15.1
57. Based on OPG's application, supporting documents, and past performance during the current licence period, CNSC staff assessed that:
- the safety assessment demonstrates compliance with the radiation safety requirements during normal operation of the PWMF

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<sup>56</sup> CMD 25-H101.1, Enclosure 1, Section 6.3.

<sup>57</sup> CMD 25-H101, Section 3.2.

<sup>58</sup> Conditions in the PWMF LCH require that OPG review, revise as necessary, and submit a SAR at a minimum of once every five years.

- OPG used a probabilistic<sup>59</sup> approach to identify credible accident scenarios and consequence evaluations of those scenarios were done using a deterministic approach
  - OPG's assumptions in the safety assessment for the proposed PCSS are based on proven and/or verified sources of data
58. Based on the information on record as described above, the Commission concludes that OPG has a safety analysis program in place that is sufficient to accommodate for the licensed activities that the proposed licence amendment would authorize. The Commission bases its conclusion on the following:
- OPG has implemented and maintained a safety analysis program in compliance with regulatory requirements
  - OPG's existing safety analysis program is adequate to support the activities that the amended licence would authorize
  - OPG has adequately assessed the hazards associated with the proposed licence amendment and demonstrated an adequate level of protection over a broad range of operating conditions
  - the safety assessment demonstrates compliance with the radiation safety requirements during normal operation of the PWMF

#### *3.4.3 Physical Design*

59. Physical design includes the activities to design systems, structures, and components to meet and maintain the design basis of a facility. The design basis is the range of conditions, according to established criteria, that the facility must withstand without exceeding authorized limits for the planned operation of safety systems. OPG's current licence includes 2 conditions related to the physical design SCA:
- Licence condition 5.1, which requires OPG to implement and maintain a design program
  - Licence condition 5.2, which requires OPG to implement and maintain a pressure boundary program and have in place a formal agreement with an Authorized Inspection Agency
60. The GNSCR requires that a licence application contain a description of any nuclear facility, prescribed equipment or prescribed information to be encompassed by the licence.<sup>60</sup>

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<sup>59</sup> A probabilistic safety assessment is a comprehensive and integrated assessment of the safety of a facility. The PSA considers the probability, progression and consequences of equipment failures or transient conditions to derive numerical estimates that provide a consistent measure of the safety of the facility.

<sup>60</sup> Paragraph 3(1)(d).

61. The CINFR requires that:

- a licence application for a Class I nuclear facility must include a description of the site of the activity to be licensed, as well as plans showing the location, perimeter, areas, structures and systems of the nuclear facility<sup>61</sup>
- an application for a licence to operate a Class I nuclear facility includes a description of the structures, systems and equipment at the nuclear facility, including their design and their design operating conditions<sup>62</sup>

62. Conditions in the current PWMF LCH require that:

- facility design and changes to facility design be accurately reflected in the safety analysis
- OPG ensures that design modifications of the facility are controlled, maintaining the facility within its design basis and licensing basis
- the design modifications of the facility comply with applicable codes, standards, and regulations including adequate consideration for human factors

63. OPG provided the Commission with information on the applicability of its physical design program to the proposed licence amendment,<sup>63</sup> covering the following areas:

- Design program
- Pressure boundary

64. OPG submitted that:

- the design and any modifications to the PCSS would comply with the Design Program related regulatory documents<sup>64</sup>
- the construction and operation of the PCSS would not impact the PWMF's Design Program licensing basis documents
- the construction and operation of the PCSS and storage of L&ILW on an interim basis would not affect the PWMF's Pressure Boundary regulatory requirements or its licensing basis documents

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<sup>61</sup> Paragraphs 3(a) and 3(b).

<sup>62</sup> Paragraphs 6(a) and 6(b).

<sup>63</sup> CMD 25-H101.1, Attachment 2, Section 2.5.

<sup>64</sup> List of physical design program related regulatory requirements, include:

- National Research Council Canada, [National Building Code of Canada](#), 2020.
- National Research Council Canada, [National Fire Code of Canada](#), 2020.
- Specific aspects of Canadian Standards Association N393, *Fire protection for facilities that process, handle, or store nuclear substances*, CSA Group, 2022.

65. OPG submitted that the PCSS is intended for the interim storage of L&ILW from potential refurbishment activities for Pickering NGS Units 5-8, as well as future Pickering NGS Units 1-4 decommissioning activities. OPG also provided a safety assessment that describes the design changes to the facility,<sup>65</sup> including the:
- location of the proposed PCSS
  - design assumptions for the PCSS
  - detailed design configuration optimization and sensitivity analyses
66. CNSC staff submitted its assessment of OPG's performance related to the physical design SCA covering the following specific areas:<sup>66</sup>
- Design governance
  - Facility design
  - Structure design
67. The Coalition for Responsible Energy Development in New Brunswick ([CMD 25-H101.6](#)) and Northwatch ([CMD 25-H101.10](#)) expressed concerns about the lack of a finalized design for the PCSS as part of OPG's submission. In its submission, OPG:
- described the design, layout, and supporting features of the proposed PCSS
  - explained that the PCSS design is based on proven structures (DWMF Retube Waste Storage Building and Steam Generator Storage Building at the WWMF), incorporates adequate shielding, and complies with applicable codes and standards<sup>67</sup>
  - submitted that the final PCSS design requirements would be provided to CNSC staff prior to the commencement date of construction activities<sup>68</sup>
68. CNSC staff submitted that it reviewed OPG's design information and found the level of detail satisfactory and compliant with regulatory requirements.<sup>69</sup> CNSC staff further submitted that it would:<sup>70</sup>
- review the DP to confirm compliance with design and licensing requirements, after which it must be accepted by the Commission or a person authorized by the Commission
  - confirm that appropriate design requirements have been developed and submitted to the CNSC prior to the onset of construction activities, as per licence condition 15.1
  - assess the PCSS-specific Fire Hazard Assessment prior to the start of PCSS construction activities, as per licence condition 15.1

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<sup>65</sup> CMD 25-H101.1, Enclosure 1.

<sup>66</sup> CMD 25-H101, Section 3.3.

<sup>67</sup> CMD 25-H101.1, Enclosure 1, Section 3.1.2.2.

<sup>68</sup> CMD 25-H101.1, Attachment 2, Section 2.5.

<sup>69</sup> CMD 25-H101, Section 3.3.1.

<sup>70</sup> CMD 25-H101, Section 3.3.1.

69. CNSC staff added that licence condition 15.1 also requires OPG to demonstrate that any design changes remain within the licensing basis.<sup>71</sup>
70. Based on OPG's application, supporting documents, and past performance during the current licence period, CNSC staff assessed that:<sup>72</sup>
- OPG's application clearly described the proposed activities, its location, and the design modifications to the facility
  - OPG applied an established ECC process to implement the facility design modification
  - OPG has experience implementing design modifications at other WMFs
71. Based on the information on record as described above, the Commission concludes that OPG has a physical design program in place that is sufficient to accommodate for the licensed activities that the proposed licence amendment would authorize. The Commission bases its conclusion on the following:
- OPG has implemented and maintained a physical design program in compliance with regulatory requirements
  - OPG's existing physical design program is adequate to support the activities that the amended licence would authorize
  - OPG has demonstrated that the design considerations for the proposed PCSS comply with applicable regulatory requirements
  - CNSC staff will review the DP and commissioning report, and confirm design requirements to ensure that OPG satisfies regulatory requirements

#### *3.4.4 Fitness for Service*

72. The fitness for service SCA covers activities that impact the physical condition of structures, systems, and components to ensure that they remain effective over time. This area includes an integrated set of programs that ensure all equipment is available to perform its intended design function when called upon to do so. Licence condition 6.1 of the current licence requires OPG to implement and maintain a fitness for service program.
73. The CINFR requires that an application for a licence to operate a Class I nuclear facility contain the proposed measures, policies, methods and procedures for operating and maintaining the nuclear facility.<sup>73</sup> [REGDOC-2.6.3, \*Aging Management\*](#)<sup>74</sup> sets out the requirements for managing the aging of structures, systems and components of a power reactor facility.

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<sup>71</sup> CMD 25-H101, Part 2, Draft Licence Conditions Handbook.

<sup>72</sup> CMD 25-H101, Section 3.3.2.

<sup>73</sup> Paragraph 6(d).

<sup>74</sup> CNSC Regulatory Document, REGDOC-2.6.3, *Aging Management*, March 2014.

74. OPG provided the Commission with information on the applicability of its fitness for service program to the proposed licence amendment.<sup>75</sup> OPG reported that:
- OPG is committed to ongoing compliance with REGDOC-2.6.3
  - the construction and operation of the proposed PCSS will not affect existing licensing basis documents related to the fitness for service SCA
75. CNSC staff submitted its assessment of OPG's performance related to the fitness for service SCA covering the aging management specific area.<sup>76</sup> Based on OPG's application, supporting documents, and past performance during the current licence period, CNSC staff assessed that:
- OPG adequately assessed the proposed licensed activities against regulatory requirements associated with the fitness for service SCA
  - although SGs and RWCs are new to the PWMF, OPG has prior experience managing these waste types at its other licensed facilities (DWMF and WWMF), and CNSC staff have confirmed OPG's compliance at those sites
76. Based on the information on record as described above, the Commission concludes that OPG has a fitness for service program in place that is sufficient to accommodate for the licensed activities that the proposed licence amendment would authorize. The Commission finds that OPG's existing programs and processes related to the fitness for service SCA meet regulatory requirements and are adequate to support the activities that the amended licence would authorize.

#### 3.4.5 Radiation Protection

77. The radiation protection SCA covers the implementation of a radiation protection program in accordance with the [Radiation Protection Regulations](#).<sup>77</sup> The program must ensure that contamination levels and radiation doses received by individuals are monitored, controlled, and maintained as low as reasonably achievable (ALARA), while taking into consideration social and economic factors. Licence condition 7.1 of the current licence requires OPG to implement and maintain a radiation protection program.
78. The *Radiation Protection Regulations*<sup>78</sup> require licensees to implement a radiation protection program. As part of this program, licensees must keep effective and equivalent doses received by, and committed to, persons ALARA, taking into account social and economic factors, and ascertain the quantity and concentration of any nuclear substance released as a result of the licensed activity.

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<sup>75</sup> CMD 25-H101.1, Attachment 2, Section 2.6.

<sup>76</sup> CMD 25-H101, Section 3.4.

<sup>77</sup> SOR/2000-203.

<sup>78</sup> Section 4.0.

79. The CINFR<sup>79</sup> require that an application for a licence to operate a Class I nuclear facility contains the proposed procedures for handling, storing, loading and transporting nuclear substances and hazardous substances, as well as the effects on the environment and the health and safety of persons that may result from the operation and decommissioning of the nuclear facility, and the measures that will be taken to prevent or mitigate those effects.
80. OPG provided information on its radiation protection program and how it applies to the proposed licence amendment,<sup>80</sup> covering the following areas:
- Radiation protection
  - Dose rate impact on the public and environment
81. OPG submitted that:
- OPG is committed to continued implementation of its radiation protection program, including work planning, use of Radiation Exposure Permit, dose monitoring, and dose rate monitoring to ensure doses remain ALARA
  - the primary radiological hazards are low levels of external gamma radiation (SGs and RWCs) and low levels of neutron radiation (RWCs only)
  - WAC will be in place to ensure no external loose contamination and to specify upper limits for external radiation hazards
  - based on experience at the WWMF, the waste forms will present minimal impact to worker safety and impact on public dose
  - low levels of neutron radiation from Californium-252 near RWCs are expected, but temporary shielding will be used to reduce these dose rates and meet acceptance criteria, especially along the PCSS perimeter
  - OPG's safety assessment included modeling various design options and sensitivity cases to optimize the design for dose reduction
  - the final PCSS layout, incorporating interior concrete shielding walls, complies with derived licence dose rate limits at the building perimeter and public receptor locations
  - routine radiological surveys, including neutron measurements, will ensure overall dose rates (gamma + neutron) are below the derived dose rate limit of 0.5 µSv/hr averaged over a quarter
  - radiation exposures to workers associated with the storage and placement of L&ILW will be managed within the framework of OPG's existing radiation protection program
  - the proposed amendment would not impact the PWMF's Radiation Protection and ALARA licensing basis documents

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<sup>79</sup> Paragraphs 6(e) and 6(h).

<sup>80</sup> CMD 25-H101.1, Attachment 2, Section 2.7.

82. CNSC staff submitted its assessment of OPG's performance related to the radiation protection SCA covering the following specific areas:<sup>81</sup>

- Application of ALARA
- Worker dose control
- Radiation protection program performance
- Radiological hazard control

83. CNSC staff submitted that:<sup>82</sup>

- it did not identify any gaps in OPG's radiation protection program with respect to the application
- it is satisfied that doses to workers would remain below both the regulatory effective dose limit and OPG's Administrative Control Limit<sup>83</sup>
- it is satisfied that, based on OPG's analysis, doses to workers will be maintained below the regulatory limits and below dose limits for postulated accident scenarios
- each SG and RWC received at the PCSS would be inspected and surveyed to confirm that dose rates are within the WAC for the proposed facility

84. The Northwatch ([CMD 25-H101.10](#)) expressed concerns that the projected maximum individual effective dose to a worker at the proposed PCSS over the course of emplacement operations was estimated to be 9.60 mSv. In its submission, OPG noted that this value represented the maximum individual dose received by 1 worker performing all high-dose emplacement tasks for the entire project lifecycle of waste receipt at the PCSS, apart from supervision.<sup>84</sup> To ensure that doses remain below OPG's Internal Exposure Level of 10 mSv/year, OPG submitted that:<sup>85</sup>

- emplacement tasks should be divided among several workers
- the ALARA assessment suggested using temporary shielding and to investigate further efficiencies in work activities, mock-up trials, and alternative waste package transfer methodologies
- OPG's operational experience from similar campaigns at other facilities, such as the Bruce Unit 6 Major Component Replacement SGs and RWCs, showed that actual highest individual doses were significantly lower than theoretical estimates and well-below regulatory limits

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<sup>81</sup> CMD 25-H101, Section 3.5.

<sup>82</sup> CMD 25-H101, Section 3.5.1.

<sup>83</sup> The regulatory limit for Nuclear Energy Workers (NEWs) is 50 mSv in any single year and 100 mSv over a 5-year period. OPG has its own internal limits for NEWs: an Administrative Dose Limit of 20 mSv/year and an Exposure Control Level of 10 mSv/year.

<sup>84</sup> CMD 25-H101.1, Enclosure 1, Section 7.0, Table 77.

<sup>85</sup> CMD 25-H101.1, Enclosure 1, Section 7.0.



85. CNSC staff submitted that OPG has maintained a satisfactory performance across the specific areas of the radiation protection SCA throughout the current licence period. CNSC staff reported that OPG has maintained radiation doses to workers below regulatory dose limits, and that there have been no action level exceedances related to worker doses or contamination control events in which the levels exceeded OPG's contamination control action level for the PWMF. Based on OPG's application, supporting documents, and past performance during the current licence period, CNSC staff assessed that:
- OPG's Radiation Protection program is effective in protecting workers at the PWMF
  - OPG has demonstrated its commitment to the ALARA principle through the implementation of its radiation protection program at the PWMF
86. Based on the information on record as described above, the Commission concludes that OPG has an adequate radiation protection program in place to carry on the activities that would be authorized by the proposed licence amendment. The Commission bases its conclusion on the following:
- OPG has implemented and maintained a radiation protection program in compliance with regulatory requirements
  - OPG's existing radiation protection program is adequate to support the activities that the amended licence would authorize
  - doses to workers would remain below the regulatory effective dose limit
  - the dose to public would remain below the regulatory limit

#### *3.4.6 Environmental Protection*

87. The environmental protection SCA covers programs that identify, control, and monitor all releases of radioactive and hazardous substances, and aim to minimize the effects on the environment that may result from licensed activities. These programs include effluent and emission control, environmental monitoring, and estimated doses to the public. OPG's current licence includes 2 conditions related to the environmental protection SCA:
- Licence condition 9.1, which requires OPG to implement and maintain an environmental protection program
  - Licence condition 9.2, which requires OPG to implement an environmental assessment follow-up plan

88. The NSCA requires licensees to make adequate provision for the protection of the environment. The GNSCR requires each licensee to take all reasonable precautions to protect the environment and the health and safety of persons, and to control the release of radioactive nuclear substances and hazardous substances within the site of the licensed activity and into the environment.<sup>86</sup> The *Radiation Protection Regulations* prescribe dose limits for the public, which are 1 mSv per calendar year.<sup>87</sup>
89. [REGDOC-2.9.1, Environmental Principles, Assessments, and Protection Measures](#)<sup>88</sup> describes the CNSC's principles of environmental protection, the scope of an environmental review, the roles and responsibilities associated with an environmental review, as well as the CNSC's requirements and guidance for developing environmental protection measures, including an environmental risk assessment (ERA) where required. The CSA Group N288 series of standards provides requirements and guidance for the environmental management of nuclear facilities.<sup>89</sup>
90. OPG provided information on its environmental protection program and how it applies to its application,<sup>90</sup> covering the following areas:
- Environmental protection
  - Effluent and emissions control (releases)
  - Environmental Management System (EMS)
  - Continued validity of prior submissions to the CNSC/licensing documents
  - Environmental assessment follow-up program

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<sup>86</sup> Paragraphs 12(1)(c) and (f).

<sup>87</sup> Pursuant to subsection 1(3).

<sup>88</sup> CNSC Regulatory Document, REGDOC-2.9.1, *Environmental Principles, Assessments and Protection Measures*, Version 1.2, April 2017.

<sup>89</sup> The following CSA Group N288 series of standards provides requirements and guidance for the environmental management of nuclear facilities:

- Canadian Standards Association N288.1, *Guidelines for calculating derived release limits for radioactive material in airborne and liquid effluents for normal operation of nuclear facilities*, CSA Group, 2014 (R2019).
- Canadian Standards Association N288.4, *Environmental monitoring programs at nuclear facilities and uranium mines and mills*, CSA Group, 2010 (R2015).
- Canadian Standards Association N288.5, *Effluent monitoring programs at Class I nuclear facilities and uranium mines and mills*, CSA Group, 2011 (R2021).
- Canadian Standards Association N288.6, *Environmental risk assessments at Class I nuclear facilities and uranium mines and mills*, CSA Group, 2012 (R2017).
- Canadian Standards Association N288.7, *Groundwater protection programs at Class I nuclear facilities and uranium mines and mills*, CSA Group, 2015 (R2020).
- Canadian Standards Association N288.8, *Establishing and implementing action levels for releases to the environment from nuclear facilities*, CSA Group, 2017 (R2022).

<sup>90</sup> CMD 25-H101.1, Attachment 2, Section 2.9.

91. OPG submitted that:

- OPG is committed to complying with the requirements of the CSA Group Standard N288 series documents, as required in the PWMF LCH
- the construction and operation of the PCSS does not require changing the Derived Release Limits, Action Levels or Internal Investigation Levels
- during operation and maintenance of the PCSS, radiological waste will remain contained, and no radiological emissions are expected under normal operating conditions
- the operation of the PCSS will adhere to OPG's existing EMS, which is certified under ISO 14001, *Environmental management systems – Requirements with guidance for use*<sup>91</sup>
- no change is required for OPG's environmental protection licensing basis documents nor on OPG governance, programs and processes

92. CNSC staff submitted its assessment of OPG's performance related to the environmental protection SCA covering the following specific areas:<sup>92</sup>

- Environmental risk assessment
- Effluent and emissions control (releases)
- Assessment and monitoring
- Protection of people
- EMS

93. CNSC staff reported that:<sup>93</sup>

- OPG maintains an environmental protection program designed and implemented to meet requirements outlined in REGDOC-2.9.1
- OPG submitted a PERA, compliant with CSA N288.6,<sup>94,95</sup> that includes an ecological risk assessment (EcoRA) and a human health risk assessment (HHRA)
- the PERA did not identify required changes to the environmental monitoring program

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<sup>91</sup> ISO Standard, ISO 14001, *Environmental management systems – Requirements with guidance for use*, 2015 (R2021).

<sup>92</sup> CMD 25-H101, Section 3.6.

<sup>93</sup> CMD 25-H101, Section 3.6.1.

<sup>94</sup> As per Clause 11.1 of CSA N288.6-22 and Section 4.1.1 of REGDOC-2.9.1, there is a need for a revised PERA when there is a proposed major facility change. The construction and operation of the proposed PCSS triggered a PERA.

<sup>95</sup> CMD 25-H101.1, Enclosure 2.

- OPG's HHRA found no significant health risks from the proposed PCSS, with the estimated radiation dose to the most exposed individual being well below the regulatory limit<sup>96,97</sup>
  - while the construction and operation of the PCSS may affect the environment during early project phases, OPG has plans in place, through its Environmental Management Plan and ongoing monitoring, to manage and mitigate these impacts
  - no harmful effects are expected from environmental hazards during construction
  - OPG will submit an Environmental Management Plan (including a Stormwater Management Plan) for CNSC staff review, outlining procedures for environmental protection, in line with licence condition 15.1
  - OPG's EMS ensures the protection of the environment and continual improvement, and CNSC staff do not foresee any negative impact from the proposed PCSS on OPG's EMS
94. Based on environmental monitoring data from 2019 to 2023, CNSC staff confirmed that radionuclide concentrations in the environment resulted in public radiation doses that remained well below regulatory limits. Based on OPG's application, supporting documents, and past performance during the current licence period, CNSC staff assessed that OPG has implemented and maintained an effective environmental protection program at the PWMF that meets regulatory requirements and continues to ensure that people and the environment are protected.
95. In its submission ([CMD 25-H101.8](#)), the Curve Lake First Nation (CLFN) raised concerns regarding OPG's use of what it considered to be outdated atmospheric dispersion models. In its submission, OPG discussed the uncertainty surrounding the air model used in its PERA, including the following:<sup>98</sup>
- "The air model used in the 2003 PWMF Phase II Expansion EA was considered bounding of the PCSS project, as the PWMF Phase II project was greater in scope and involved the site preparation of a larger area and the construction of multiple storage buildings, compared to the PCSS."
  - "based on limited changes to meteorological conditions over time, and the conservatism in the 2003 modelling, the atmospheric modelling from the 2003 PWMF Phase II Expansion EA is still considered appropriate."

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<sup>96</sup> The public dose estimate for the Sport Fisher is  $4.89 \times 10^{-3}$   $\mu\text{Sv}/\text{year}$ , even with conservative assumptions. This dose estimate represents 0.0005% of the regulatory public dose limit (1 mSv/year). CMD 25-H101.1, Enclosure 2, Section 6.4.

<sup>97</sup> The total dose received by the Sport Fisher from current operations (Pickering NGS and PWMF) and the PCSS was estimated to be 0.57  $\mu\text{Sv}/\text{year}$ . This cumulative dose represents 0.06% of the regulatory public dose limit (1 mSv/year). CMD 25-H101.1, Enclosure 2, Section 8.1.

<sup>98</sup> CMD 25-H101.1, Enclosure 2, Section 6.5.

96. Based on the information on record, as described above, the Commission concludes that OPG has an environmental protection program in place to accommodate the activities that the proposed licence amendment would authorize. The Commission bases its conclusion on the following:
- OPG's existing programs and processes related to the environmental protection SCA meet regulatory requirements, including REGDOC-2.9.1 and CSA Group N288-series standards
  - OPG's existing environmental protection program is sufficient to manage the activities under the proposed licence amendment
  - the proposed licence amendment would not result in additional risk to the public or the environment
  - CNSC staff will review OPG's Environmental Management Plan and Stormwater Plan prior to issuing a recommendation on commencement of construction activities

#### *3.4.7 Waste Management*

97. The waste management SCA covers internal waste-related programs that form part of the facility's operations up to the point where the waste is removed from the facility to a separate waste management facility. It also covers the planning for decommissioning. Decommissioning plans and the associated FG are discussed in Section 3.6.2 of this *Record of Decision*.
98. OPG's current licence includes 2 conditions related to the waste management SCA:
- Licence condition 11.1, which requires OPG to implement and maintain a waste management program
  - Licence condition 11.2, which requires OPG to implement and maintain a decommissioning strategy
99. The GNSCR provide that a licence application must include the name, quantity, form, origin and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed, including wastes that may be stored, managed, processed, or disposed of at the site of the activity to be licensed, and the proposed method for managing and disposing of that waste.<sup>99</sup>

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<sup>99</sup> Paragraph 3(1)(j).

100. [REGDOC-2.11.1, Waste Management, Volume I: Management of Radioactive Waste](#),<sup>100</sup> sets out the CNSC's requirements and guidance for managing radioactive waste. The CSA Group N292-series set out requirements and guidance for the safe handling, processing, storage, transport, and disposal of radioactive waste in Canada.<sup>101</sup>
101. OPG submitted information on its waste management program and how it applies to the proposed licence amendment.<sup>102</sup> OPG reported that:
- the interim storage of L&ILW waste complies with REGDOC-2.11.1 and CSA Group N292-series requirements
  - OPG has a robust waste characterization program that will account for the wastes that will be accepted for storage in the PCSS
  - no changes to the established licensing basis of the waste management SCA would be required to support the proposed licence amendment
102. CNSC staff submitted its assessment of OPG's performance related to the waste management SCA covering the following specific areas:<sup>103</sup>
- Waste characterization
  - Waste management practices
103. CNSC staff confirmed that OPG has an effective waste management program at the PWMF that minimizes waste generation and complies with CNSC regulatory requirements, including REGDOC-2.11.1, CSA N292.0-19, and N292.3-08.
104. The Coalition for Responsible Energy Development in New Brunswick ([CMD 25-H101.6](#)) and Northwatch ([CMD 25-H101.10](#)) expressed concerns that there was insufficient detail about the characteristics of the waste to be stored at the PCSS. In its submission, OPG reported that:<sup>104</sup>
- OPG's current waste characterization program accounts for the activities of the wastes that will be stored in the proposed PCSS
  - the WAC will define the types of waste acceptable for storage in the PCSS
  - the WAC will establish radiation dose rate limits for each waste package (including both gamma and neutron components)

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<sup>100</sup> CNSC Regulatory Document, REGDOC-2.11.1, *Waste Management, Volume I: Management of Radioactive Waste*, January 2021.

<sup>101</sup> List of waste management program related regulatory requirements, include:

- Canadian Standards Association N292.0, *General principles for the management of radioactive waste and irradiated fuel*, CSA Group, 2019.
- Canadian Standards Association N292.2, *Interim dry storage of irradiated fuel*, CSA Group, 2013.
- Canadian Standards Association N292.3, *Management of low- and intermediate level radioactive waste*, CSA Group, 2014.

<sup>102</sup> CMD 25-H101.1, Attachment 2, Section 2.11.

<sup>103</sup> CMD 25-H101, Section 3.7.

<sup>104</sup> CMD 25-H101.1, Attachment 2, Section 2.11.1.

- internal controls as part of the WAC process, will ensure that any RWCs being transferred from Pickering NGS to the PCSS are compliant waste
105. CNSC staff noted that there are no material differences between OPG's current management of RWCs and ex-service SGs at other WMFs and the proposed approach for the PWMF.<sup>105</sup> CNSC staff submitted that OPG's commitments and existing processes demonstrate that OPG has adequately characterized the waste for the safety assessment and has a clear plan, subject to CNSC staff review and acceptance prior to operation, to define and implement detailed WAC and controls for the PCSS.
106. Based on OPG's application, supporting documents, and past performance during the current licence period, CNSC staff assessed that OPG adequately assessed the waste management SCA impacts that would result from construction and operation of the proposed PCSS.
107. Based on the information on record, as described above, the Commission concludes that OPG has a waste management program in place to accommodate the activities that the proposed licence amendment would authorize. The Commission bases its conclusion on the following:
- OPG has implemented and maintained a waste management program in compliance with regulatory requirements, including REGDOC-2.11.1 and CSA Group N292-series standards
  - OPG's existing waste management program is sufficient to manage the activities under the proposed amended licence
  - OPG's current waste characterization program accounts for the activities of the wastes that would be stored in the proposed PCSS

#### *3.4.8 Conclusion on OPG's Safety and Control Measures with Respect to the SCAs*

108. Based on its analysis of the information provided and discussed above, the Commission is satisfied that OPG is qualified to carry on the licensed activities that the amended licence would authorize. In addition, the Commission finds that OPG has adequate programs and measures in place with respect to the 14 SCAs to ensure that the health and safety of workers, the public and the environment will be protected. The Commission further concludes that OPG has adequate measures in place to provide for the maintenance of national security and to implement international obligations to which Canada has agreed.

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<sup>105</sup> CMD 25-H101, Section 3.4.2.2.

109. OPG is required to provide additional information to the CNSC to support OPG's compliance with regulatory requirements under a number of safety and control areas, as described in Part 1 of CMD 25-H101 and throughout Section 3.4 of this *Record of Decision*. OPG will have to provide this information for review by CNSC staff with delegated authority (see Section 3.7.2 of this *Record of Decision*), prior to the construction and operation of the PCSS.

### 3.5 Indigenous Engagement and Consultation

110. The Commission considered the information provided by CNSC staff, OPG and intervenors regarding Indigenous consultation and engagement activities in respect of this application to amend the licence for the PWMF. Indigenous consultation refers to the common law duty to consult with Indigenous Nations and communities pursuant to Section 35 of the [\*Constitution Act, 1982\*](#).<sup>106</sup>
111. The common law duty to consult is grounded in the key principle of the honour of the Crown. The foundation of the duty in the Crown's honour and the goal of reconciliation mean that the duty arises when the Crown has knowledge, real or constructive, of the potential existence of the Aboriginal right or title and contemplates conduct that might adversely affect it.<sup>107</sup> Licensing decisions of the Commission, where Indigenous interests may be adversely impacted, can engage the duty to consult, and the Commission must be satisfied that if the duty is engaged, it has met the duty prior to making the relevant licensing decision. The duty to consult is not triggered by historical impacts and is not meant to address past grievances but rather is designed to address potential impacts flowing from a current proposed project.<sup>108</sup>
112. The determination of what the duty to consult and accommodate requires is informed by the principles and the provisions of the UNDRIP as a result of its adoption into Canadian law via the UNDA. The content of the UNDRIP is to be used as a lens to interpret the Crown's duty to consult and accommodate.<sup>109</sup>
113. CNSC staff submitted<sup>110</sup> that the proposed licence amendment would permit the construction of a new storage structure, and therefore there remains a low potential for adverse impacts on Indigenous and/or Treaty rights. As such, OPG is required to follow [\*REGDOC-3.2.2, Indigenous Engagement\*](#),<sup>111</sup> and the project raises the Crown's Duty to Consult and accommodate obligations. CNSC staff further submitted that, based on the information in OPG's application, the activity authorized by the proposed licence amendment is unlikely to cause new adverse impacts to the exercise of potential or

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<sup>106</sup> *Constitution Act, 1982*, Schedule B to the *Canada Act 1982* (UK), 1982, c 11.

<sup>107</sup> *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73 at para 35.

<sup>108</sup> *Rio Tinto Alcan Inc. v. Carrier Sekani Tribal Council*, 2010 SCC 43, [2010] 2 S.C.R. 650 at para 49; *Chippewas of the Thames First Nation v. Enbridge Pipelines Inc.*, 2017 SCC 41, [2017] 1 S.C.R. 1099 at para. 41.

<sup>109</sup> *Kebaowek First Nation v. Canadian Nuclear Laboratories*, 2025 FC 319.

<sup>110</sup> CMD 25-H101, Section 4.1.

<sup>111</sup> CNSC Regulatory Document, *REGDOC-3.2.2, Indigenous Engagement*, Version 1.2, February 2022.



established Indigenous and/or Treaty rights as it would not change the PWMF site characterization or lead to new impacts.

### *3.5.1 Indigenous Consultation by CNSC Staff*

114. CNSC staff provided the Commission with information about its engagement activities with the Indigenous Nations and communities that were identified as having a potential interest in OPG's licence amendment application.<sup>112</sup> CNSC staff identified that Williams Treaties First Nations have established Indigenous and treaty rights to the lands and waters surrounding and inclusive of the Pickering NGS site. Williams Treaties First Nations are:
- Alderville First Nation (AFN)
  - CLFN
  - Hiawatha First Nation (HFN)
  - Mississaugas of Scugog Island First Nation (MSIFN)
  - Chippewas of Beausoleil First Nation (CBFN)
  - Georgina Island First Nation (GIFN)
  - Mnjikaming (Chippewas of Rama First Nation) (CRFN)
115. CNSC staff identified the following Indigenous Nations and communities with interests in the PWMF and the lands and waters surrounding and inclusive of the PWMF:
- Mohawks of the Bay of Quinte
  - Métis Nation of Ontario Region 8 (MNO)
  - Six Nations of the Grand River
  - Mississaugas of the Credit First Nation
116. CNSC staff reported that it:<sup>113</sup>
- sent letters of notification to the identified Indigenous Nations and communities in September 2024 to inform them of OPG's application, opportunities to participate in the hearing process, and the availability of participant funding
  - offered meetings to all identified Indigenous Nations and communities
  - engaged in regular discussions with, CLFN, MSIFN, HFN, and MNO
  - followed up with interested Indigenous Nations and communities via phone calls for further discussion
  - encouraged all identified Indigenous Nations and communities to participate in the Commission hearing through written interventions to advise the Commission directly of any concerns they may have in relation to OPG's licence amendment application

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<sup>112</sup> CMD 25-H101, Section 4.1.1.

<sup>113</sup> CMD 25-H101, Section 4.1.1.

117. CNSC staff added that it had raised OPG's application in its regular meetings under Terms of Reference agreements with CLFN, HFN, MSIFN, and MNO. At the time of submission of CMD 25-H101, CNSC staff reported that it had discussed OPG's application with MSIFN, HFN, and CLFN during regular meetings in 2024 and 2025.
118. CNSC staff reported that MSIFN raised concerns regarding OPG's expansion of nuclear waste capacity without prior CNSC authorization for the continued operation or refurbishment of Pickering NGS Units 5-8. CNSC staff clarified that the proposed PCSS is for storing waste from decommissioning Units 1-4 and the potential refurbishment of Units 5-8, and that OPG would require separate Commission authorization to generate and store refurbishment-related waste.
119. CNSC staff expressed its commitment to ongoing engagement and collaboration with the above noted Indigenous Nations and communities and to continue to provide opportunities for meaningful long-term engagement and collaboration with respect to OPG's PWMF.

### *3.5.2 Indigenous Engagement by OPG*

120. OPG provided information regarding its ongoing engagement with Indigenous Nations and communities with established or asserted rights and/or interests regarding the PWMF.<sup>114</sup> OPG reported that it engaged with the following Indigenous Nations and communities regarding its licence amendment application:
  - AFN
  - Beausoleil First Nation
  - CLFN
  - GIFN
  - HFN
  - MSIFN
  - Rama First Nation
  - Huron-Wendat Nation, Quebec
  - Mohawks of Bay of Quinte
  - MNO
  - Saugeen Ojibway Nation (comprised of Saugeen First Nation and Chippewas of Nawash Unceded First Nation)
  - Six Nations of the Grand River
  - Mississaugas of the Credit First Nation

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<sup>114</sup> CMD 25-H101.1, Attachment 2, Section 4. Appendix B of Attachment 2 also provides the preliminary assessment on impacts on Aboriginal and/or Treaty rights, the Indigenous Engagement summary to date, a description of planned engagement activities, and the proposed schedule for interim reporting to CNSC staff on the engagement activities.

121. OPG submitted that:

- in Q1 2024, OPG engaged with the Williams Treaties First Nations on activities at the Pickering NGS and the PWMF. Engagement included collaboration on a Pickering Indigenous Engagement Plan (IEP),<sup>115</sup> shared in May 2024 and revised in January 2025
- a kick-off workshop was held to introduce the IEP, including the proposed PCSS, and to gather feedback and support ongoing dialogue under an established Memorandum of Understanding
- OPG continues proactive engagement through staff briefings, information sessions, written updates, and workshops as outlined in the IEP
- OPG holds monthly meetings with Michi Saagig First Nations and is developing an engagement approach with Chippewa First Nations
- bi-monthly Waste Table meetings<sup>116</sup> with Michi Saagig First Nations support ongoing discussions on waste management
- OPG remains open to engaging with other interested Indigenous Nations and communities not currently identified in the IEP and will respect those who decline further involvement

122. CNSC staff reported that OPG's IEP with Indigenous Communities was developed in compliance with [REGDOC-3.2.2, \*Indigenous Engagement\*](#),<sup>117</sup> which sets out requirements and guidance for licensees on Indigenous engagement. CNSC staff noted that OPG's engagement with Indigenous Nations and communities on the licence amendment was reflected in the PERA. CNSC staff encouraged OPG to continue to engage with the identified Nations in relation to this licence amendment application and activities at the PWMF site and recommended that OPG include more detailed engagement results in future PERA updates.

### *3.5.3 Submissions by Indigenous Nations*

123. Two Indigenous Nations submitted written submissions on this matter:

- Mississaugas of Scugog Island First Nation (MSIFN) ([CMD 25-H101.5](#))
- Curve Lake First Nation (CLFN) ([CMD 25-H101.8](#))

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<sup>115</sup> The IEP was developed based on input from Rightsholders and Indigenous Nations and communities to support a holistic, coordinated, site-wide engagement strategy across Pickering. CMD 25-H101.1, Attachment 2, Appendix B.

<sup>116</sup> The purpose of the meeting is to identify key waste topics Williams Treaties First Nations would like to discuss, provide project updates (i.e. PCSS), seek input into a Terms of Reference and regulatory roadmap, and determine the cadence of the meetings. CMD 25-H101.1, Attachment 2, Appendix B.

<sup>117</sup> CNSC Regulatory Document, REGDOC-3.2.2, *Indigenous Engagement*, Version 1.2, February 2022.

Mississaugas of Scugog Island First Nation

124. In its submission ([CMD 25-H101.5](#)), MSIFN provided information on its connection to the project, emphasized that UNDRIP must inform regulatory actions and legal interpretations, and discussed the application of UNDRIP through the UNDA Action Plan, particularly in the context of CNSC's responsibilities. MSIFN advocated for FPIC, in relation to nuclear project decisions and UNDRIP.
125. MSIFN raised concerns about OPG's application, including on:
- the CNSC's current consultation process in relation to reconciliation and legal obligations under UNDRIP
  - whether current and future CNSC decisions will reflect UNDRIP and Canada's UNDA commitments
  - Canada's policy for radioactive waste management and decommissioning
  - OPG's plan for existing, imminent and future waste
126. MSIFN also outlined 6 key requests, including:
- Binding Agreements: enforceable agreements between OPG and treaty rights holders to formalize commitments, ensure compliance, and uphold MSIFN's rights.
  - Environmental Protection: comprehensive cumulative effects assessments and binding provisions to protect the environment and Indigenous rights.
  - Economic Participation and Equity: inclusion of MSIFN in economic opportunities related to PCSS construction, maintenance, and monitoring.
  - Nuclear Site Security and Community Safety: collaboration on security protocols and training tied to Indigenous engagement.
  - Implementation of UNDRIP and Natural Resource Canada (NRCan) Waste Policy: alignment of PCSS operations with UNDRIP and NRCan's waste policy, ensuring FPIC for long-term storage.
  - Involvement in OPG's Regulatory Programs: formal participation in OPG's regulatory programs, including environmental monitoring, emergency preparedness, and waste management.
127. With respect to CNSC's current consultation process, MSIFN submitted its view that "CNSC's consultation process was unilaterally developed and does not reflect the reconciliation roadmap of the federal government, Natural Resources Canada (NRCan) and the CNSC's stated commitments."<sup>118</sup> MSIFN also noted that "MSIFN has not been a part of creating the current consultation process nor have we consented to it. To this end, there is an urgent and imperative need for the CNSC to comply with the law. CNSC's current process is outdated and does not align with the federal government nor NRCan's legal obligations."<sup>119</sup> MSIFN asked for UNDRIP articles: Article 18, Article 19, Article 26, Article 32(2), and Article 29(2) to be upheld.

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<sup>118</sup> CMD 25-H101.5, page 8.

<sup>119</sup> CMD 25-H101.5, page 9.

128. MSIFN expressed concern that the current and future CNSC decisions may not be informed by UNDRIP and UNDA. MSIFN submitted that:
- in *Kebaowek First Nation v. Canadian Nuclear Laboratories* (2025), the Federal Court confirmed that UNDRIP and FPIC are stand-alone legal obligations, not dependent on the duty to consult
  - courts, particularly in Quebec, treated UNDRIP as part of Canada's normative legal order and guiding the interpretations of Section 35 of the [Constitution Act, 1982](#). The practical effect is that decision-makers, including the CNSC, must ensure that their processes and decisions align with UNDRIP's principles including FPIC
  - the CNSC recognizes UNDA and FPIC in principle but has not implemented them in practice. MSIFN is of the view that CNSC has the authority to require FPIC and must take concrete action to align its decisions with the UNDA Action Plan and constitutional obligations
129. Regarding Canada's policy for radioactive waste management and decommissioning, MSIFN submitted its view that the principles of this policy be meaningfully applied in all processes to radioactive waste management. MSIFN further outlined key federal commitments and expectations for waste generators and owners under this policy and asserted that it expects them to be realized through concrete actions by both the CNSC and OPG.
130. With respect to the plan for existing, imminent and future waste, MSIFN expressed concern about the Crown's lack of a definitive long-term plan for existing, imminent, and future waste, should the Nuclear Waste Management Organization (NWMO) fail in its mandate. MSIFN submitted that "neither the NWMO nor the Crown has prioritized meaningful engagement with First Nations treaty rights holders, like MSIFN, who have lived with nuclear waste on their lands for over fifty years and will continue to do so for decades to come."<sup>120</sup> MSIFN noted that it never provided consent for the Pickering NGS, PWSF, PCSS or future on-site storage of waste at the Pickering site. MSIFN requested that the Commission consider establishing a provision for First Nation consent, to be enforced by the Commission itself, regarding the management of nuclear waste at all sites.

#### Curve Lake First Nation

131. In its submission ([CMD 25-H101.8](#)), CLFN acknowledged that CNSC staff and OPG have made significant efforts to consult and engage with CLFN, however, CLFN asserts that there needs to be improvement in the following areas:
- the absence of a comprehensive plan for the decommissioning phase and long-term waste management

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<sup>120</sup> CMD 25-H101.5, page 17.

- OPG's use of outdated atmospheric dispersion models in its PERA
  - alignment of CNSC's decision-making with UNDA
132. With respect to the absence of a plan concerning a decommissioning phase and long-term management of waste, CLFN noted that "This documentation lacks sufficient detail regarding the decommissioning phase of the project. Specifically, information is absent on the expected duration of storage for decommissioned materials, the types and quantities of materials to be stored, and the anticipated timelines and processes for their removal or long-term management."<sup>121</sup> CLFN also acknowledged that "We want to recognize OPG and note that we are working to review and provide input on a more detailed decommissioning plan, to allow for an informed review and risk evaluation by Curve Lake First Nation."<sup>122</sup>
133. CLFN's concerns regarding the atmospheric dispersion models are addressed in Section 3.4.6 of this *Record of Decision*.
134. Regarding the alignment of CNSC's decision-making with UNDA, CLFN is of the view that "the CNSC's decision-making regarding the OPG PWMF licence amendment must be consistent with UNDRIPA, address the concerns raised by CLFN, and demonstrate genuine two-way dialogue that goes beyond information sharing to reflect a commitment to understanding and accommodating the perspectives of impacted First Nations. While progress has been made, significant opportunities remain to evolve consultation processes and ensure alignment with the principles of UNDRIP and UNDRIPA."<sup>123</sup> CLFN also acknowledged that "OPG does mention their Reconciliation Action Plan (RAP) as a mechanism to define their measurable goals in their reconciliation with Indigenous Nation, communities, and businesses. We encourage OPG to continue to build upon already establish relationships with Indigenous Communities and looks forward to creating a better way ahead for everyone involved."<sup>124</sup>
135. CLFN also noted the importance of its role in the co-planning and co-governance process in the management of nuclear waste. It emphasized the involvement of CLFN knowledge holders in environmental monitoring to strengthen environmental stewardship efforts and to co-develop monitoring strategies that integrate both Western science and Indigenous Knowledge. Additionally, CLFN highlighted the need to acknowledge historical injustices related to the legacy issues and cumulative impacts of nuclear projects, as a necessary step toward rebuilding trust and fostering reconciliation. It also stressed the importance of recognizing and respecting the unique governance systems of each First Nation.

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<sup>121</sup> CMD 25-H101.8, page 4.

<sup>122</sup> CMD 25-H101.8, page 4.

<sup>123</sup> CMD 25-H101.8, page 6.

<sup>124</sup> CMD 25-H101.8, page 7.

136. CLFN acknowledged OPG's consideration of the Harvester receptor in OPG's PERA, recognizing it as a meaningful step in addressing potential impacts on Indigenous land use. CLFN also acknowledged that CNSC staff and OPG have made significant efforts to consult and engage with the Nation, noting participation in both the bi-monthly "Waste Table" forum and monthly meetings with OPG. CLFN noted, "We view both the Waste Table and the Pickering Engagement meetings as another foundational step to building and sustaining a long-term, trust-based relationship with OPG. We are encouraged by the progress made thus far and are committed to working collaboratively with OPG to enhance these processes further."<sup>125</sup> In addition, CLFN recognized OPG's development of the *Generations for Generations* modules as a valuable initiative to inform communities about energy education.

#### *3.5.4 Conclusion on Indigenous Engagement and Consultation*

137. The Commission recognizes that the PWMF site is located on Michi Saagiig Anishinaabeg lands and waters, within the Williams Treaties territory. Considering the 2018 Williams Treaties First Nations Settlement Agreement and the potential for construction of the PCSS to adversely impact Indigenous and/or Treaty rights, the Commission finds that the Crown's duty to consult and, where appropriate, accommodate is triggered with respect to the Williams Treaties First Nations and has been met. This determination is based on the fact that the potential impact on Indigenous and/or Treaty rights is minimal. The PCSS will be located on the site of the Pickering NGS where the Williams Treaties First Nations do not currently have access. Therefore, their ability to exercise their rights will be minimally disrupted by the proposed site preparation and construction of the PCSS authorized by this licence amendment.
138. The Commission recognizes the individual rights of AFN, CLFN, HFN, MSIFN, CBFN, GIFN, and CRFN as independent Williams Treaties First Nations and the Crown's responsibility to discharge the duty to consult and, where appropriate, accommodate with respect to each individual Nation.

#### *Application of the UNDRIP and the UNDA to this application*

139. Recent jurisprudence confirms that the UNDA incorporates the UNDRIP into Canada's positive legal framework. Accordingly, the Commission has considered, in making its determination on the fulfillment of Section 35 rights and of the duty to consult and accommodate, how the UNDRIP and its articles may impact the fulfillment of such rights.<sup>126</sup> The Commission has assessed the application of the duty to consult and accommodate in relation to the licence amendment within the context of and with acknowledgement of the UNDA.

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<sup>125</sup> CMD 25-H101.8, page 4.

<sup>126</sup> *Kebaowek First Nation v. Canadian Nuclear Laboratories*, 2025 FC 319.

140. The Commission recognizes that the UNDA means that the Commission's consideration of what the Section 35 duty to consult and potentially accommodate may entail is to be done through the interpretive lens of the UNDRIP, including the standard of FPIC where applicable.<sup>127</sup> This application is a case where Article 32(2) of the UNDRIP applies, meaning the goal of FPIC is the standard of consultation that is triggered.
141. Concerns have been raised by MSIFN and CLFN on the application of the UNDRIP and FPIC to the CNSC's licensing process. The Commission acknowledges that the evidence on the record for this application demonstrates CNSC staff and OPG efforts to ensure that Indigenous Nations and communities were properly informed of the licence amendment. The Commission expects that CNSC staff and OPG will continue to engage with Michi Saagiig Nations with the aim of achieving consensus.
142. The Commission thanks MSIFN and CLFN for their participation in this hearing in writing, and for helping to build a robust record that informed the Commission's recommendations and decisions. The Commission values the participation, knowledge, and information, that the Indigenous Nations and communities brought to this hearing in writing process.
143. Based on the evidence on the record for this hearing in writing and described throughout Section 3.5 of this *Record of Decision*, the Commission is satisfied with CNSC staff's efforts to consult with Indigenous Nations and communities who have established or asserted rights and/or interests regarding the PWMF, on matters relevant to the licence amendment application before the Commission. The Commission also recognizes the engagement activities undertaken by OPG with each Indigenous Nation and community. The Commission is satisfied with the evidence received in this regard to render its decision on OPG's application.
144. The application before the Commission triggered the duty to consult with respect to the Williams Treaties First Nations. As the licence amendment would permit the construction of a new storage structure, there remains a low potential for adverse impacts on Indigenous and/or Treaty rights. The licence amendment is unlikely to cause new adverse impacts to the exercise of potential or established Indigenous and/or Treaty rights as it would not change the PWMF site characterization or lead to new impacts. Therefore, the Commission is of the view that the consultation process conducted as part of the public hearing for this licence amendment application, as well as the consultation activities undertaken by CNSC staff and the engagement efforts carried out by OPG, with Williams Treaties First Nations, were sufficient to meet the obligations of the Crown.

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<sup>127</sup> UNDRIP is a contextual factor that gives rise to an enhanced obligation to consult. *Kebaowek First Nation v. Canadian Nuclear Laboratories*, 2025 FC 319 at paragraphs 124 and 125. References to FPIC are found throughout UNDRIP (see Articles 10, 11, 19, 28, 29 and 32). These articles of UNDRIP emphasize the importance of recognizing and upholding the rights of Indigenous peoples and ensuring that there is effective and meaningful participation of Indigenous peoples in decisions that affect them, their communities, and territories.



145. Based on the engagement and consultation activities summarized above, the information presented on the record, having read the submissions of all Indigenous Nations and communities, and other participants, the Commission is satisfied that the honour of the Crown has been upheld in this matter.
146. The Commission acknowledges the concerns raised by Indigenous Nations and communities respecting the management of waste in their territory. The Commission notes that the efforts made by CNSC staff to consult with Indigenous Nations and communities are key to the important work of the Commission toward reconciliation and relationship-building with Canada's Indigenous peoples. The Commission expects CNSC staff to continue to build meaningful long-term relationships with Indigenous Nations and communities as part of the CNSC's reconciliation efforts. The Commission also recognizes and encourages OPG's efforts and continued engagement with Indigenous Nations and communities.
147. The Commission notes the concerns raised regarding potential future activities at the Pickering site, including the planned refurbishment of certain Pickering NGS reactor units, and the eventual decommissioning of the PWSF and Pickering NGS. The Commission also notes the views raised with respect to potential waste management activities to be undertaken by the NWMO. These activities are not within the scope of the current application and would be subject to separate regulatory processes under the NSCA. The Commission is satisfied that Indigenous Nations and communities would have the opportunity to participate in those future regulatory processes.

### **3.6 Other Matters of Regulatory Importance**

#### *3.6.1 Public Engagement*

148. A public information and disclosure program (PIDP) is a regulatory requirement for licence applicants and licensed operators of Class I nuclear facilities. Licence condition G.4 of the current licence requires OPG to implement and maintain a public information and disclosure program. [REGDOC-3.2.1, \*Public Information and Disclosure\*](#)<sup>128</sup> sets out requirements for public information programs, disclosure protocols, and related documentation as they relate to licensed activities.
149. OPG provided information on its public engagement,<sup>129</sup> and stated that it has a public information and disclosure program in place to maintain timely and transparent communication with members of the public. OPG noted that it uses a variety of communication methods to distribute information, answer questions, and solicit feedback including, personal contact, community newsletters, community committees, speaking engagements, advertising, and educational outreach. OPG elaborated that its PIDP includes regular meetings with the Pickering Community Advisory Council, participation on the Durham Nuclear Health Committee, and distribution of a quarterly newsletter,

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<sup>128</sup> CNSC REGDOC-3.2.1, *Public Information and Disclosure*, May 2018.

<sup>129</sup> CMD 25-H101.1, Attachment 2, Sections 3.1-3.3.

*Neighbours*, mailed to residents across Durham Region. The newsletter provides updates on activities and events related to the PWMF and surrounding stations.

150. CNSC staff submitted its assessment of OPG's public engagement activities through monitoring of OPG's implementation of its PIDP.<sup>130</sup> CNSC staff confirmed that OPG's PIDP complies with REGDOC-3.2.1 and submitted that OPG provides an opportunity for public engagement and information exchange regarding its application to construct and operate the PCSS.
151. Christine Drimmie ([CMD 25-H101.9](#)) and Northwatch ([CMD 25-H101.10](#)) raised concerns regarding the lack of information about OPG's current application in the *Neighbours* Spring Newsletter (2025) and OPG's provincewide outreach initiatives (2024), respectively.
152. Based on the information on record as described above, the Commission concludes that OPG has a PIDP in place to communicate to the public information about the health, safety and security of persons and the environment, including information relevant to the construction and operation of the PCSS at the PWMF. The Commission trusts that OPG will have seen the comments made by intervenors regarding the improvements it could make to better communicate with interested parties on specific matters, such as licence applications.

### *3.6.2 Decommissioning Plans and Financial Guarantee*

153. The NSCA and its regulations require licensees to make adequate provision for the safe decommissioning of their facilities and for the long-term management of waste produced during the life of a facility.<sup>131</sup> In order to ensure that adequate resources are available for the safe and secure future decommissioning of the PWMF, the Commission requires that an adequate Financial Guarantee (FG) for the realization of planned activities be put in place and maintained in a form acceptable to the Commission throughout the licence period. Licence condition 11.2 requires OPG to implement and maintain a decommissioning strategy. Licence condition G.3 requires OPG to maintain a financial guarantee for decommissioning that is acceptable to the Commission.
154. [REGDOC-3.3.1, \*Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities\*](#),<sup>132</sup> sets out requirements and guidance for applicants and licensees regarding the establishment and maintenance of funding for the decommissioning of facilities and termination of activities licensed by the CNSC.

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<sup>130</sup> CMD 25-H101, Section 4.3.

<sup>131</sup> Subsection 24(5) of the NSCA requires licensees to provide a financial guarantee in a form that is acceptable to the Commission. Paragraph 3(1)(l) of the GNSCR requires a licence application to contain a description of any proposed financial guarantee related to the activity for which a licence application is submitted. Paragraph 3(k) of the CINFR requires that a licence application contain the proposed plan for the decommissioning of the nuclear facility or of the site.

<sup>132</sup> CNSC Regulatory Document, REGDOC-3.3.1, *Financial Guarantees for Decommissioning of Nuclear Facilities and Termination of Licensed Activities*, January 2021.

155. OPG submitted that:<sup>133</sup>

- the PWMF Preliminary Decommissioning Plan (PDP) complies with requirements of CSA N294-19 (2019), *Decommissioning of Facilities Containing Nuclear Substances*<sup>134</sup>
- the PWMF PDP will reflect the implementation of [REGDOC-2.11.2, Waste Management Decommissioning](#)<sup>135</sup> and the addition of the PCSS in the next update scheduled for submission to CNSC staff in 2027<sup>136</sup>
- the construction and operation of the PCSS will not impact OPG's decommissioning licensing basis document, Decommissioning Program
- the financial impact related to the PCSS will be included in the next 2027-2031 FG submission associated with the updated PDP, in accordance with REGDOC-2.11.2<sup>137</sup>

156. CNSC staff submitted that:<sup>138</sup>

- OPG maintains PDPs for all OPG operated nuclear facilities in Ontario including the PWMF, and that they meet the requirements of CSA N294-19
- OPG maintains a consolidated FG for decommissioning of all OPG operated nuclear facilities in Ontario, including the PWMF. The consolidated FG currently in place (2022-2027) was approved by the Commission in [2022](#). OPG will address the impact of the PCSS on the status of the consolidated FG in its annual funding report to the CNSC as outlined in licence condition G.3
- OPG's Decommissioning Segregated Fund remains overfunded and is sufficient, on a conservative basis to cover anticipated PCSS-related decommissioning expenses
- CNSC staff conclude that OPG's consolidated financial guarantee for decommissioning of all OPG operated nuclear facilities in Ontario is adequate

157. The Commission is satisfied that OPG's existing PDP and FG for the PWMF are adequate to account for the construction and operation of the PCSS.

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<sup>133</sup> CMD 25-H101.1, Attachment 2, Sections 2.11.2 and 2.11.3.

<sup>134</sup> Canadian Standards Association N294-19, *Decommissioning of Facilities Containing Nuclear Substances*, CSA Group, 2019.

<sup>135</sup> CNSC Regulatory Document, REGDOC-2.11.2, *Waste Management Decommissioning*, January 2021.

<sup>136</sup> The PDPs for OPG operated facilities were last updated in and reviewed by CNSC staff in 2022. The PDP is updated every five years, with the next update scheduled for submission to CNSC staff in 2027.

<sup>137</sup> Decommissioning cost estimates in support of the OPG FGs are updated on a five-year cycle in accordance with REGDOC-2.11.2, REGDOC-3.3.1, and CSA Guide N294-19.

<sup>138</sup> CMD 25-H101, Sections 3.1.1, 3.7 and 5.

### 3.7 Licence Amendment

158. The Commission considered OPG's application for an amendment to its waste facility operating licence for the PWMF, WFOL-W4-350.00/2028, to authorize the construction and operation of the PCSS. OPG's licence expires on August 31, 2028.

#### 3.7.1 Proposed Licence Amendment

159. To authorize the construction and operation of the PCSS at the PWMF, OPG proposed that the Commission amend the licence through the addition of the following paragraph to Part IV of the WFOL:

*“(vi) carry out the site preparation, construction, or construction modifications and operate the Pickering Component Storage Structure for interim storage of Low and Intermediate Level Waste from Pickering NGS.”<sup>139</sup>*

160. CNSC staff recommended that the Commission amend WFOL-W4-350.00/2028 with specific text that deviated from OPG's proposal. CNSC staff recommended that the Commission amend paragraph (iv) of Part IV of the WFOL from:

*“(iv) carry out the site preparation, construction, or construction modifications at the facility associated with the authorized additional processing and storage buildings, when on completion will result in a total of no more than 1 dry storage container processing building and no more than 6 used fuel dry storage buildings;”*

to:

*“(iv) carry out the site preparation, construction, or construction modifications at the facility associated with the authorized low & intermediate level waste storage building, and authorized additional used fuel processing and storage buildings, when completion will result in a total of no more than 1 low & intermediate-level waste storage building, 1 dry storage container processing building, and 6 used fuel dry storage buildings;”*

161. CNSC staff also recommended that the Commission amend licence condition 15.1 to account for the requirement of regulatory acceptance prior to the commencement of construction activities, ensuring that the construction and operation of the PCSS cannot proceed until specific documents have been submitted to the CNSC and accepted by the Commission or a person authorized by the Commission.

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<sup>139</sup> CMD 25-H101.1, Attachment 2, Appendix A.

162. The Commission accepts the proposed licence amendments as submitted by CNSC staff. The Commission is satisfied that the proposed licence amendments are clear, reasonable and consistent with the activities to be licensed to construct and operate the PCSS. The Commission is satisfied that CNSC staff will provide regulatory oversight to ensure that regulatory requirements continue to be met.

163. Paragraph (iv) of Part IV of the WFOL is amended to the following:

*“(iv) carry out the site preparation, construction, or construction modifications at the facility associated with the authorized low & intermediate level waste storage building, and authorized additional used fuel processing and storage buildings, when completion will result in a total of no more than 1 low & intermediate-level waste storage building, 1 dry storage container processing building, and 6 used fuel dry storage buildings;”*

164. Licence condition 15.1 is amended to the following:

*“The licensee shall not carry out the activities referred to in paragraph (iv) of Part IV of this licence without the submission of an environmental management plan, a construction verification plan, and the project design requirements, and without prior written acceptance from the Commission or a person authorized by the Commission.”*

### *3.7.2 Delegation of Authority*

165. CNSC staff recommended that the Commission delegate authority for licence condition 15.1 to the following CNSC staff:

- Director, Wastes and Decommissioning Division
- Director General, Directorate of Nuclear Cycle and Facilities Regulation
- Executive Vice-President and Chief Regulatory Operations Officer, Regulatory Operations Branch


166. By delegating its authority for the purpose of licence condition 15.1, the Commission would be delegating the administration of licence condition 15.1 to the above CNSC staff members, as persons authorized by the Commission.

167. The Coalition for Responsible Energy Development in New Brunswick ([CMD 25-H101.6](#)), Juan Pedro Unger ([CMD 25-H101.7](#)), and Northwatch ([CMD 25-H101.10](#)) expressed concerns regarding the decision-making process for the application. The intervenors were concerned that CNSC staff would be making a decision rather than an independent Commissioner.

168. The Commission delegates its authority for the purpose of licence condition 15.1, as recommended by CNSC staff. The Commission notes that the delegation of authority for the identified licence condition is for the purpose of the administration of that licence condition. In delegating authority for this licence condition, the Commission is authorizing CNSC staff to provide adequate regulatory oversight on its behalf; that is, CNSC staff would be verifying whether OPG's submissions conform with the established safety case. The delegation of authority does not extend to authorization beyond the established licensing basis; such decisions remain solely within the purview of the Commission. The Commission is satisfied that this approach is reasonable.

#### 4.0 CONCLUSION

169. The Commission has considered the information and submissions of OPG, and CNSC staff, as well as the written interventions submitted for the hearing. Based on its consideration of the evidence on the record, the Commission amends<sup>140</sup> the waste facility operating licence WFOL-W4-350.00/2028 issued to OPG for its PWMF located in Pickering, Ontario, to authorize the construction and operation of the PCSS. The amended licence, WFOL-W4-350.01/2028, remains valid until August 31, 2028.

 Digitally signed by Tremblay, Pierre  
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Pierre F. Tremblay  
President  
Canadian Nuclear Safety Commission

December 19, 2025

Date

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<sup>140</sup> Pursuant to Section 24 of the NSCA.

**Appendix A – Intervenors**

<b>Intervenors</b>	<b>Document Number</b>
North American Young Generation in Nuclear – Durham Chapter	<a href="#"><u>CMD 25-H101.2</u></a>
Kinectrics Inc.	<a href="#"><u>CMD 25-H101.3</u></a>
City of Pickering and the Canadian Association of Nuclear Host Communities	<a href="#"><u>CMD 25-H101.4</u></a>
Mississaugas of Scugog Island First Nation	<a href="#"><u>CMD 25-H101.5</u></a>
Coalition for Responsible Energy Development in New Brunswick	<a href="#"><u>CMD 25-H101.6</u></a>
Juan Pedro Unger	<a href="#"><u>CMD 25-H101.7</u></a>
Curve Lake First Nation	<a href="#"><u>CMD 25-H101.8</u></a>
Christine Drimmie	<a href="#"><u>CMD 25-H101.9</u></a>
Northwatch	<a href="#"><u>CMD 25-H101.10</u></a>