



## Record of Decision

DEC 21-H4

In the Matter of

Applicant Ontario Power Generation Inc.

Subject Application to Renew the Power Reactor Site  
Preparation Licence for the Darlington New  
Nuclear Project

Public Hearing  
Dates June 10-11, 2021

Record of  
Decision Date October 12, 2021

## **RECORD OF DECISION – DEC 21-H4**

Applicant: Ontario Power Generation

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

Purpose: Application to renew Ontario Power Generation Inc.'s nuclear power reactor site preparation licence for the Darlington New Nuclear Project

Application received: [June 29, 2020](#)

Notice of public hearing: [October 15, 2020](#), Revision 1 on [March 1, 2021](#); Revision 2 on [May 10, 2021](#)

Dates of public hearing: [June 10, 2021](#) and [June 11, 2021](#)

Location: [Virtual Hearing](#)

Members present: R. Velshi, Chair  
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Secretary: M.A. Leblanc

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**Licence:** Renewed

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## 1.0 INTRODUCTION

1. Ontario Power Generation Inc. (OPG) has applied to the Canadian Nuclear Safety Commission<sup>1</sup> for the renewal of the nuclear power reactor site preparation licence for the Darlington New Nuclear Project (DNNP). The DNNP site is located on OPG's Darlington Nuclear Generating Station site in the Municipality of Clarington, Ontario, approximately 65 km east of Toronto. The current power reactor site preparation licence, PRSL 18.00/2022, expires on August 18, 2022. OPG requested a renewal of the licence for a period of 10 years.
2. OPG's current licence [was issued in 2012](#) following an [Environmental Assessment](#)<sup>2</sup> (EA) conducted by a Joint Review Panel (JRP) under the [Canadian Environmental Assessment Act](#)<sup>3</sup> (CEAA). After both the EA decision by the Governor-in-Council and the licensing decision by the Commission were successfully challenged by way of judicial review in the Federal Court of Canada, the [Federal Court of Appeal](#)<sup>4</sup> overturned the first instance decision and upheld the validity of both decisions. Notably, the Court confirmed that the plant parameter envelope<sup>5</sup> (PPE) approach used by OPG was acceptable for the purpose of the EA and original licence application.
3. OPG's current licence authorizes the following site preparation activities:
  - a) construction of site access control measures;
  - b) clearing and grubbing of vegetation;
  - c) excavation and grading of the site to a finished elevation of approximately +78 masl (metres above sea level);
  - d) installation of services and utilities (domestic water, fire water, sewage, electrical, communications, natural gas) to service the future nuclear facility;
  - e) construction of administrative and support buildings inside the future protected area;
  - f) construction of environmental monitoring and mitigation systems; and
  - g) construction of flood protection and erosion control measures.

OPG does not propose any change to these authorized activities in its licence renewal application.

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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> Darlington New Nuclear Power Plant Project Joint Review Panel Environmental Assessment Report, August 2011.

<sup>3</sup> Statutes of Canada (S.C.) 1992, c. 37.

<sup>4</sup> Ontario Power Generation Inc. v. Greenpeace Canada, 2015 FCA 186.

<sup>5</sup> The plant parameter envelope (PPE) provides a bounding envelope of plant design and site characteristics that was used in the DNNP EA and 2009 licence application. The PPE identifies a set of design parameters and associated limiting values, including worst-case-scenarios, to describe the bounding features of the DNNP. It relates to the interaction between a nuclear power plant and the site/environment, and along with calculations of releases to the environment and doses to persons, characterizes the effects of the facility on persons and the environment, as predicted in the EA and 2009 licence application.

4. To date, OPG has not initiated the conduct of any licensed activities on the site. OPG has focused its efforts on addressing the recommendations stemming from the EA process. Under the licence, prior to commencing any site preparation activities, OPG is required to submit a number of documents for CNSC staff review to verify that the activities can be carried out safely and that the intent of the JRP recommendations is met.

### Issues

5. In considering OPG's application to renew the licence for the DNNP, the Commission considered whether and what requirements the [\*Impact Assessment Act\*](#)<sup>6</sup> (IAA) imposes in relation to the renewal application. Satisfying any such requirements can be a prerequisite to licensing.
6. Under the [\*Nuclear Safety and Control Act\*](#)<sup>7</sup> (NSCA), the Commission is required to decide:
  - whether OPG is qualified to carry on the activity that the renewed licence would authorize; and
  - whether, in carrying on that activity, OPG 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.
7. As an agent of the Crown, the Commission recognizes its role in fulfilling the Crown's constitutional obligations, and in 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 Indigenous or treaty rights.<sup>8</sup> As such, the Commission must confirm whether the duty to consult is engaged by this licence renewal application and, if it is engaged, what is required to satisfy that responsibility.

### Public Hearing

8. On October 15, 2020, a [\*Notice of Public Hearing and Participant Funding\*](#) was published for this matter.

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<sup>6</sup> S.C. 2019, c. 28, s. 1.

<sup>7</sup> Statutes of Canada (S.C.) 1997, chapter (c.) 9.

<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

9. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission over which she would preside, including Commission Members Dr. Timothy Berube and Dr. Marcel Lacroix, to decide on the application. The Commission, in making its decision, considered information presented for a public hearing held virtually on June 10-11, 2021. The public hearing was conducted in accordance with the [Canadian Nuclear Safety Commission Rules of Procedure](#)<sup>9</sup> (the Rules). During the public hearing, the Commission considered written submissions and heard oral presentations from OPG ([CMD 21-H4.1](#), [21-H4.1A](#), [21-H4.1B](#)) and CNSC staff ([CMD 21-H4](#), [21-H4.A](#)). The Commission also considered oral and written submissions from 61 intervenors<sup>10</sup>. The hearing was webcast live via the CNSC's website, and archived on the [CNSC's website](#).

#### General Considerations

10. This section addresses considerations raised with respect to the hearing. These include a potential conflict of interest, the scope of the hearing, and the mandate of the Commission.

#### *Reasonable apprehension of bias*

11. In the interest of ensuring a fair and impartial process, prior to presiding over the hearing, President Velshi sought external legal advice with respect to whether there could be a reasonable apprehension of bias arising from her prior involvement with OPG and the Darlington site, such that she should recuse herself from this matter. This was a proactive step, not prompted by any hearing participant. President Velshi determined there was no basis on which she should recuse herself from the renewal hearing, and filed on the record as [CMD 21-H4.63](#) the conclusions of Professor Paul Daly, University Research Chair in Administrative Law and Governance at the University of Ottawa in this regard.

#### *Hearing scope*

12. Several interventions addressed the issue of small modular reactors (SMRs) or other reactor technologies. The scope of the hearing, however, did not include reactor technology selection. In its application to renew the site preparation licence, OPG proceeded on the same terms as its current licence, with no increase in scope. No specific reactor technology was put before the Commission as part of the renewal application.

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<sup>9</sup> Statutory Orders and Regulations (SOR)/2000-211.

<sup>10</sup> See Appendix A for a list of interventions



13. The Commission acknowledges that OPG and the Ontario government have publicized that the DNNP site could be used for SMRs, which led some intervenors to question the continued validity of the EA.
14. The Commission acknowledges that if and when a reactor technology is chosen, an assessment will be needed as to whether the parameters of the chosen technology are such that their potential effects may be found to have been considered in the EA, or whether a new assessment will be required. Any chosen technology will be subject to a future Commission licensing decision, should OPG come forward with an application for a licence to construct a reactor at the site. It would be at that time that the Commission would consider reactor technology and the adequacy of the EA. These are not matters for this renewal application.

#### *Commission mandate*

15. Several interventions addressed the potential economic impact of the DNNP. The Commission notes that, as the regulatory authority over nuclear matters in Canada, it has no economic mandate and does not base its decisions on the economic impact of a facility. It is the health, safety and security of the public, the protection of the environment, national security, and the implementation of the international obligations to which Canada has agreed that guide its decisions, in accordance with the NSCA.
16. Several intervenors expressed their views about the DNNP in relation to energy policy. The Commission notes that it is the Ontario government that determines Ontario's energy policy. The CNSC does not have this role or mandate. If the Ontario government decides that nuclear power is part of its energy plan, the role of the CNSC is to ensure that it is done safely.

## **2.0 DECISION**

17. Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Decision*, the Commission concludes that OPG is qualified to carry on the activity that the licence will authorize. The Commission is of the opinion that OPG, in carrying on 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. Therefore,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, renews the nuclear power reactor site preparation licence issued to Ontario Power Generation Inc. for its Darlington New Nuclear Project located in the Municipality of Clarington, Ontario. The renewed licence, PRSL 18.00/2031, is valid from October 12, 2021 until October 11, 2031. The renewed licence replaces the current power reactor site preparation licence, PRSL 18.00/2022.

18. The Commission includes in the licence the conditions as recommended by CNSC staff in CMDs 21-H4. The Commission adds the following licence condition 15.3 to the proposed licence:

The licensee shall have the documents required for site preparation accepted by the Commission, or a person authorized by the Commission, prior to the commencement of the licensed activities described in Part IV (i) of this licence.

The Commission also delegates authority for the purposes of licence conditions 3.2 and 15.3, as recommended by CNSC staff.

19. The Commission is satisfied that an impact assessment under the *Impact Assessment Act* was not required in this matter.
20. With this decision, the Commission directs CNSC staff to report on the performance of OPG and the DNNP, as part of the [\*Regulatory Oversight Report for Canadian Nuclear Power Generating Sites\*](#). CNSC staff shall present this report at a public proceeding of the Commission, where members of the public will be able to participate.
21. The Commission directs CNSC staff to inform the Commission on an annual basis of any changes made to the Licence Conditions Handbook (LCH). CNSC staff may bring any matter to the Commission's attention as required.
22. The Commission expects OPG and CNSC staff to continue to build meaningful long-term relationships with Indigenous communities. In particular, the Commission expects OPG to fulfil its commitment to meaningfully incorporate Indigenous knowledge in the DNNP process.

### **3.0 APPLICABILITY OF THE *IMPACT ASSESSMENT ACT***

23. In coming to its decision, the Commission considered whether an impact assessment under the IAA was required. The IAA came into force on August 28, 2019. Pursuant to the IAA and the [\*Physical Activities Regulations\*](#)<sup>11</sup> made under it, impact assessments are to be conducted in respect of projects identified as having the greatest potential for adverse environmental effects in areas of federal jurisdiction. A licence renewal is not a project designated in the *Physical Activities Regulations*. 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>12</sup>

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<sup>11</sup> SOR/2019-285.

<sup>12</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 renewal does not engage any such applicable IAA requirements.

24. The 2011 environmental assessment determined that the proposed DNNP is not likely to cause significant adverse environmental effects, taking into account the Joint Review Panel's recommendations and implementation of proposed mitigation measures. CNSC staff submitted that the scope of OPG's licence renewal application remains within the bounds of this environmental assessment.
25. Several intervenors questioned whether the conclusions of the 2011 EA remained valid, given that OPG has indicated that it was considering selecting a SMR technology that was not specifically considered during the EA. The Joint Review Panel recommended that:
- “The Panel understands that prior to construction, the CNSC will determine whether this EA is applicable to the reactor technology selected by the Government of Ontario for the Project. Nevertheless, if the selected reactor technology is fundamentally different from the specific reactor technologies bounded by the Plant Parameter Envelope, the Panel recommends that a new environmental assessment be conducted.”<sup>13</sup>
26. The Government of Canada accepted the intent of this recommendation<sup>14</sup>, and acknowledged that any responsible authority under the CEAA (i.e. the CNSC) would need to determine whether the future proposal by the proponent is fundamentally different from the specific reactor technologies assessed by the Joint Review Panel and whether a new assessment would be required.
27. Based on the above, the Commission is satisfied that, in the context of this hearing:
- the selection of a specific technology is not part of the application before it;
  - a decision regarding the applicability of the 2011 EA to any selected technology can and will be made at the time that OPG selects a technology and submits an application for a licence to construct a reactor for the DNNP (i.e. prior to construction).

#### **4.0 ISSUES AND COMMISSION FINDINGS**

28. In making its licensing decision, the Commission considered a number of issues and submissions relating to OPG's qualification to carry out the licensed activities. The Commission also considered the adequacy of the proposed measures for protecting the environment, the health and safety of persons, national security and international obligations to which Canada has agreed.
29. The matter before the Commission is a renewal of an existing licence to prepare a site for a reactor, with no appreciable change in scope. The licensed activities would remain the same. It is fundamental to understand that, as result of the EA for the DNNP, OPG is bound by the results of that process. OPG's current licence requires that OPG implement:

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<sup>13</sup> CMD 21-H4, p. 72

<sup>14</sup> Ibid.

- the mitigation measures proposed and commitments made during the Darlington Joint Review Panel process; and
  - the applicable recommendations of the Darlington Joint Review Panel Report in accordance with the Government of Canada response.
30. OPG's current licence also requires that OPG have the documents required for site preparation accepted by the Commission, or a person authorized by the Commission, prior to commencing licensed activities. OPG is tracking the commitments it made during the EA through OPG's DNNP Commitments Report.
31. To date, OPG has not initiated any licensed activities. The Commission understands that OPG would not proceed with doing so until it has selected a technology and/or satisfied the requirements of the licence, i.e., submitted detailed documentation for CNSC acceptance. The Commission accepted this approach in issuing the current licence, and finds this approach acceptable for the purpose of considering the licence renewal application.
32. The Commission will focus its reasons on the issues it considers the most relevant, specifically:
- Completeness of the licence application
  - Site evaluation
  - Relevant safety and control areas
  - Indigenous consultation and engagement
  - Other matters of regulatory interest
  - Licence length and conditions

#### **4.1 Completeness of the Licence Application**

33. OPG submitted its application to renew the site preparation licence for the DNNP on June 29, 2020. In its consideration of this matter, the Commission examined the completeness of the application and the adequacy of the information submitted by OPG, as required by the NSCA, the [\*General Nuclear Safety and Control Regulations\*](#)<sup>15</sup> (GNSCR), the [\*Class I Nuclear Facilities Regulations\*](#)<sup>16</sup> and other applicable regulations made under the NSCA, including the [\*Nuclear Security Regulations\*](#)<sup>17</sup> the [\*Radiation Protection Regulations\*](#)<sup>18</sup>, and the [\*Nuclear Non-Proliferation Import and Export Control Regulations\*](#)<sup>19</sup>.
34. The GNSCR call on an applicant for a licence renewal to provide information regarding any changes in information to the CNSC as part of its application. Section 5 provides:

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<sup>15</sup> SOR/2000-202.

<sup>16</sup> SOR/2000-204.

<sup>17</sup> SOR/2000-209.

<sup>18</sup> SOR/2000-203.

<sup>19</sup> SOR/2000-210.

An application for the renewal of a licence shall contain

- (a) the information required to be contained in an application for that licence by the applicable regulations made under the Act; and
- (b) a statement identifying the changes in the information that was previously submitted.

35. OPG's application identifies that it completed a gap analysis between its 2009 application for a licence to prepare site and current codes and standards, including CNSC Regulatory Document [REGDOC-1.1.1, Site Evaluation and Site Preparation for New Reactor Facilities](#), which was published in 2018. CNSC staff's assessment was that OPG's application was complete and met regulatory expectations.
36. In its intervention, Northwatch ([CMD 21-H4.43](#)) submitted its view that OPG's application was not complete by virtue of:
- including references to OPG's 2009 licence application in lieu of including information provided in the 2009 application; and
  - including insufficient information regarding site layout, as required by section 4 of the *Class I Nuclear Facilities Regulations*.

In response to Northwatch's submission, OPG provided additional site drawings ([CMD 21-H4.1B](#)).

37. With respect to the references to the 2009 application, the Commission notes that section 7 of the GNSCR states that "An application ...for the renewal... of a licence may incorporate by reference any information that is included in a valid, expired or revoked licence." On this basis, the Commission is satisfied that it is acceptable for OPG's application for the renewal of its site preparation licence to incorporate by reference the licensing basis documents referenced in the licence and included in OPG's 2009 application.
38. OPG's current licence requires that OPG fulfil its commitments made as a result of the EA, which are tracked as part of the OPG DNNP Commitments Report. OPG has also made new commitments, one of which is deliverable D-P-18, "Proposed Layout of Structures in the Final Layout State (to the extent practicable)." OPG is required to submit the documents for CNSC staff acceptance no later than 90 calendar days prior to the planned commencement of the licensed activities, or as otherwise agreed to. CNSC staff will verify the conformity of these OPG documents when they are submitted for acceptance prior to the conduct of any site preparation activities.
39. The Commission is satisfied that OPG's application is complete and complies with the regulatory requirements respecting its application.

## 4.2 Site Evaluation

40. CNSC REGDOC-1.1.1 outlines the parameters for a site preparation licence. According to this REGDOC,
- “Site evaluation is done before the applicant submits an application to prepare a site for the eventual construction of a reactor facility. During the lifecycle of the nuclear facility, the site evaluation is reviewed and updated to reflect changes in the vicinity of the site, or to incorporate new scientific data and knowledge.”

REGDOC-1.1.1 further states that

“Site evaluation is a process that continues throughout the lifecycle of the proposed facility, to ensure that the facility’s design basis and safety case remains current with changing environmental conditions or modifications to the facility itself. Site evaluation information is also a key input into reactor facility design and subsequent lifecycle phases.”

OPG’s initial site evaluation for the DNNP was completed at the time of the EA for the DNNP. For the purpose of this licence renewal, the Commission considered whether OPG adequately reviewed and updated its site evaluation studies.

41. OPG submitted that the PPE considered during the EA remains consistent with current codes and standards, including REGDOC-1.1.1. Throughout the current licence term OPG conducted follow-up studies and evaluations regarding site evaluation. OPG’s site evaluation studies considered the following:
- meteorological events,
  - flooding hazards,
  - seismic hazards,
  - geotechnical hazards,
  - external human-induced hazards, and
  - hazards related to site characteristics and their influence on potential dispersion of radioactive materials.
42. OPG’s application included updated site characteristics and baseline environmental data as part of the continued site evaluation process, including: atmospheric, meteorological, geological, geophysical, hydrological, hydrogeological, biological, ambient radioactivity and pre-existing hazardous substances. The Commission is satisfied that OPG’s application thoroughly demonstrates that OPG has updated its site evaluation studies.
43. CNSC staff confirmed that OPG continues to adequately assess the suitability of the DNNP site and, where necessary, add mitigation measures. CNSC staff reported that it assessed OPG’s application against REGDOC-1.1.1, as well as other CNSC REGDOCs, CSA standards and the EA recommendations, and determined that OPG’s application met requirements. CNSC staff will continue to verify that OPG is meeting its requirements and commitments with respect to site evaluation and characterization.

44. Several intervenors, including the Canadian Association of Physicians for the Environment ([CMD 21-H4.36](#)) and Durham Nuclear Awareness / Canadian Environmental Law Association ([CMD 21-H4.37](#)), questioned whether the site remained suitable for the proposed development, particularly with respect to issues such as land use planning, population growth and emergency preparedness. The Commission received additional information on these issues during the hearing.
45. In response to questions from the Commission, representatives from OPG described OPG's continued work with local governments, including the Municipality of Clarington, the City of Oshawa and the Regional Municipality of Durham, on aspects around population studies, transportation, land use, and emergency planning. Provincial and municipal requirements also apply to OPG, and OPG must meet these requirements.
46. With respect to land use planning, emergency planning and population growth, the Commission received information from local governments, including the Regional Municipality of Durham ([CMD 21-H4.41](#)) and the Municipality of Clarington ([CMD 21-H4.21](#)). These participants confirmed that the area would be able to accommodate the forecasted population growth and development, including zoning and land use restrictions around the DNNP site. The Commission is satisfied that the site remains suitable from a land use perspective.
47. The Commission finds that OPG continues to meet regulatory requirements and expectations with respect to the ongoing evaluation and characterization of the DNNP site. The Commission is satisfied that the information it assessed regarding site evaluation demonstrates that the DNNP site remains acceptable; no new information was presented that would call into question the conclusions of the EA or invalidate the adequacy of the site evaluation.

### **4.3 Safety and Control Areas**

48. The Commission examined CNSC staff's assessment of OPG's performance in all applicable safety and control areas (SCAs). Given the nature of the activities encompassed by a site preparation licence, the following safety and control areas apply:
  - Management System
  - Operating Performance
  - Safety Analysis
  - Physical Design
  - Radiation Protection
  - Conventional Health and Safety
  - Environmental Protection
  - Emergency Management and Fire Protection
  - Waste Management
  - Security

- Safeguards and Non-Proliferation

49. Throughout the current licence period, CNSC staff rated OPG's performance in all applicable SCAs as "satisfactory." CNSC staff reported that OPG has continued to fulfil the commitments set out in OPG's DNNP Commitments Report. To date, certain commitments have been closed, new ones have been added, and others have been modified while maintaining the integrity of the commitments and the licence conditions.

#### 4.3.1 Management System

50. The Commission examined OPG's management system which covers the framework that establishes the processes and programs required to ensure that the licensed activities are safely performed. CNSC staff reported that OPG has implemented and maintained a satisfactory management system for the DNNP.
51. OPG's application includes information about OPG's management system, including its organization and safety culture. To control the DNNP site preparation activities, OPG intends to transition from its original management system for the DNNP to the OPG Nuclear (OPGN) management system. The OPGN management system is currently in place for OPG's nuclear generating stations and Waste Management facilities. According to OPG, the OPGN management system provides a framework that establishes the processes and programs required for OPG to monitor and manage performance against objectives, and fosters a healthy safety culture. Under the OPGN management system, the DNNP site preparation activities would be conducted in accordance with modern codes and standards including CSA Group standard N286-12, *Management System Requirements for Nuclear Facilities*<sup>20</sup>. OPG will notify CNSC staff during the transition, as required.
52. CNSC staff assessed that the OPGN management system meets the requirements of CSA N286-12, and is suitable for use at the DNNP. CNSC staff have assessed OPG's measures to foster a strong safety culture and conclude they are suitable for the DNNP.
53. OPG anticipates that an Engineering, Procurement and Construction (EPC) company will execute site preparation activities with OPG oversight. As the licensee, OPG will remain responsible for all licensed activities. CNSC staff assessed OPG's plan to use an EPC company and determined that it is appropriate for site preparation activities.
54. Northwatch, in its intervention, questioned OPG's intent to use an EPC company to perform site preparation activities. In response to Commission questions on this matter, CNSC staff stated that OPG's application addressed regulatory requirements with respect to contractor management. CNSC staff explained its assessment of OPG's management system with respect to the contractor management aspect of CSA N286-12, and noted that OPG is required to maintain oversight of all work performed by

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<sup>20</sup> CSA Group, CSA N286-12, *Management system requirements for nuclear facilities*, 2012 (Reaffirmed 2017).



contractors. CNSC staff reiterated that OPG is responsible, regardless of who performs the work.

55. Further on the matter of contractor management, OPG representatives described OPG's programs for quality management and contractor oversight. An OPG representative noted that OPG is using a similar approach with EPC companies for the execution of the ongoing refurbishment of the Darlington nuclear generating station. The Commission is satisfied that OPG has an acceptable program in place to manage any EPC companies that may be contracted to carry out site preparation work.
56. On the basis of the information provided on the record for this hearing, the Commission is satisfied that OPG has an acceptable program in place to manage any EPC companies that may be contracted to carry out site preparation work. The Commission concludes that OPG has appropriate organization and management structures in place to carry on the licensed activities.

#### *4.3.2 Operating Performance*

57. The Commission examined operating performance as it applies to site preparation for the DNNP. This includes an overall review of the conduct of the licensed activities and the activities that enable effective performance, as well as improvement plans and significant future activities.
58. To date, OPG has not commenced any licensed activities. OPG continues to monitor the DNNP site conditions, and will notify the CNSC of any changes in site conditions and any activities arising from such changes. CNSC staff confirmed that OPG has appropriate programs to ensure that adequate measures are in place prior to carrying out site preparation activities. CNSC staff assessed that OPG's proposed safety and control measures, including relevant commitments, remain appropriate for the proposed scope of licensed activities.
59. The Commission also assessed the information submitted by CNSC staff regarding OPG's adherence to requirements pertaining to reporting. In accordance with its licence, OPG maintains a reporting program for the DNNP. OPG has continued to submit annual reports on site preparation activities and commitments to the CNSC. There were no reportable events related to the DNNP over the licence period. The Commission is satisfied that OPG met all reporting requirements throughout the licence period.
60. Having examined the information submitted for this hearing, the Commission finds that OPG has programs and safety and control measures in place to ensure that licensed activities will be carried out safely during the proposed licence period, and is of the view that OPG will continue to meet requirements during the proposed licence period.

#### *4.3.3 Safety Analysis*

61. The Commission assessed safety analysis for the DNNP, which includes a systematic evaluation of the potential hazards associated with the conduct of the licensed activities, and considers the effectiveness of preventive measures and strategies in reducing the effects of such hazards. For site preparation, the safety analysis SCA focuses on hazard analysis which is used to systematically identify and assess hazards in order to evaluate the potential internal, external, human-made and natural events that can cause the identified hazards to initiate faults that develop into accidents.
62. CNSC staff is of the view that OPG's hazard analysis for the DNNP PRSL renewal application meets the requirements and guidance of REGDOC-1.1.1. OPG has further commitments to complete further analysis prior to conducting site preparation activities. CNSC staff will verify the compliance of OPG's documents at the appropriate activity phases. Future safety analysis and plant design activities will build on the information established by the hazard analysis.
63. On the basis of the information presented, the Commission concludes that the systematic evaluation of the potential hazards is adequate for the activities under the proposed licence. The Commission is satisfied that OPG's safety analysis program for the DNNP meets regulatory requirements and the expectations set out in REGDOC-1.1.1. The Commission notes that a comprehensive assessment of the safety analysis of the reactor technology selected for construction would be considered in the application for a Licence to Construct.

#### *4.3.4 Physical Design*

64. The Commission examined physical design as it applies to site preparation for the DNNP. For a site preparation licence, this SCA focuses on site evaluation and characterization activities to ensure the site is suitable to host the potential future activities. The Physical Design SCA incorporates new information arising over time and takes changes in the external environment into account. CNSC staff reported that OPG's application did not identify any new or changed information that would alter the proposed exclusion zone, civil structures and civil works or layout of areas, structures and systems identified in its previous application.
65. During the current licence period, OPG upgraded the domestic and fire water supply and sewage treatment infrastructure on the Darlington site, taking into account the projected needs of the DNNP. CNSC staff reported that the upgrades were acceptable and within the bounds of the DNNP licence. Future OPG site preparation activities will include continuation of the infrastructure to support the DNNP from the tie-in points from the shared Darlington site system.
66. According to OPG, the following civil structures and civil works would be conducted during site preparation:

- construction of site access control measures;
  - clearing and grubbing of vegetation;
  - excavation and grading of the site to a finished elevation of approximately +78 masl;
  - installation of services and utilities (domestic water, fire water, sewage, electrical, communications, natural gas) to service the future nuclear facility;
  - construction of administrative and support buildings inside the future protected area; and
  - construction of flood protection and erosion control measures.
67. Major civil works for the bounding site preparation would also include:
- infilling and associated shoreline protection of Lake Ontario up to the 2 meter depth contour;
  - soil and rock stockpiling on the northern portion of the DNNP site; and
  - construction of site access infrastructure (i.e., roads, bridges, water access points).
68. As OPG has not selected a reactor technology, OPG has not developed technology-specific site layout plans to define the extent of site preparation activities related to major civil structures and works. OPG submitted that the existing licensing basis and DNNP commitments, with respect to the physical design of the nuclear facility, remain appropriate for the project scope. OPG will have to provide more detailed information following the selection of a reactor technology, including a Proposed Layout of Structures in the Final Layout State. OPG must also ensure that adequate lake infill design measures are undertaken prior to site preparation.
69. CNSC staff will verify that any updated OPG documents meet regulatory requirements and that OPG's commitments are met prior to OPG conducting site preparation activities. This includes exclusion zone and emergency planning zones, design of civil structures and civil works and layout of areas, structures and systems.
70. On the basis of the information presented, the Commission is satisfied that OPG has appropriate measures in place to ensure the site is suitable to host potential future activities. The Commission notes that a comprehensive assessment of the physical design of the reactor technology selected for construction would be considered in the application for a Licence to Construct.

#### 4.3.5 Radiation Protection

71. The Commission considered the area of radiation protection as it applies to the DNNP. OPG has not sought authorization to use nuclear substances during the proposed licence period, and workers will not be at risk of receiving radioactive doses exceeding public dose limits. There will be no dose of radiation associated with site preparation that could merit an Action Level according to Section 6 of the *Radiation Protection Regulations*.

72. As the DNNP site is located within close proximity to the DNGS and Darlington Waste Management Facility (DWMF), OPG must ensure that workers are protected from potential exposure to very low levels of radiation from these facilities. OPG has committed to develop an Occupational Health & Safety (OHS) plan that will address the potential exposure of workers to very low levels of radiation. CNSC staff reported that any resulting exposure to workers is expected to be a small fraction of the effective and equivalent dose limits for persons who are not Nuclear Energy Workers (NEWs). CNSC staff assessed that the information submitted by OPG with respect to radiation protection meets the CNSC's regulatory requirements for site preparation.
73. The Commission considered the information provided by OPG and CNSC staff and is of the opinion that, given the mitigation measures and safety programs that are in place to control hazards, OPG will make adequate provision for the protection of the environment and the health and safety of persons during the conduct of the licensed activities. The Commission is satisfied that workers will not be at risk of receiving radioactive doses exceeding public dose limits.

#### *4.3.6 Conventional Health and Safety*

74. The Commission examined the implementation of a conventional health and safety program for site preparation at the DNNP, which covers the management of workplace safety hazards. The conventional health and safety program is mandated by provincial statutes for all employers and employees to minimize risk to the health and safety of workers posed by conventional (non-radiological) hazards in the workplace. This program includes compliance with applicable labour codes and conventional safety training. OPG noted that there were no occupational health and safety events, and no Ministry of Labour investigations or orders, related to the DNNP over the licence period.
75. OPG submitted that its existing Health and Safety Program will apply to all OPG personnel and contractor staff supporting the project. As OPG is not currently carrying out any site preparation activities, it does not yet have an Occupational Health and Safety Plan specific to site preparation activities; OPG is required to develop and submit this plan prior to the start of licensed activities.
76. CNSC staff submitted that OPG's provisions for conventional health and safety are in compliance with regulatory requirements, given that no physical activities are currently taking place. CNSC staff noted that once physical activities commence, CNSC staff will verify and ensure OPG's Occupational Health and Safety Plan is implemented.
77. The Commission concludes that OPG's conventional health and safety program for the DNNP satisfies regulatory requirements. The Commission also concludes that the health and safety of persons will be adequately protected during throughout the proposed licence period.

#### 4.3.7 Environmental Protection

78. The Commission examined OPG's environmental protection programs for site preparation for the DNNP. These programs are intended to minimize the effects on the environment that may result from the licensed activities.
79. Since OPG's original application, the CNSC has published [REGDOC-2.9.1, Environmental Protection: Environmental Principles, Assessments and Protection Measures, Version 1.2](#), and the CSA Group has published four new standards relevant to environmental protection:
- CSA N288.4, *Environmental Monitoring Programs at Class I Nuclear Facilities and Uranium Mines and Mills*<sup>21</sup>;
  - CSA N288.5, *Effluent Monitoring Programs at Class I Nuclear Facilities and Uranium Mines and Mills*<sup>22</sup>;
  - CSA N288.6, *Environmental Risk Assessments at Class I Nuclear Facilities and Uranium Mines and Mills*<sup>23</sup>; and
  - CSA N288.7, *Groundwater Protection Programs at Class I Nuclear Facilities and Uranium Mines and Mills*<sup>24</sup>.
80. The Commission considered whether OPG's environmental protection programs adequately met the specifications of REGDOC-2.9.1. According to CNSC staff, OPG's program meets the requirements of REGDOC-2.9.1, CSA N288.4, CSA N288.5 and CSA N288.6. CNSC staff have accepted OPG's implementation plan for CSA N288.7.
81. OPG has committed to establishing an Environmental Management and Protection Plan to ensure that site preparation activities are performed in a manner that protects the environment. This plan would include measures for erosion and sediment control, spill prevention and response, nuisance effects (dust and noise), and stormwater management. Under the proposed licensing basis, OPG is required to fulfill this commitment before any site preparation activities are started. CNSC staff expects the plan to include a systematic evaluation of the potential environmental effects associated with all anticipated work activities, and the implementation of measures that eliminate or mitigate risk to the environment. CNSC staff will conduct a re-assessment and verification of these OPG documents when they are submitted for acceptance.

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<sup>21</sup> CSA Group, CSA N288.4, *Environmental monitoring programs at Class I nuclear facilities and uranium mines and mills*, 2010.

<sup>22</sup> CSA Group, CSA N288.5, *Effluent monitoring programs at Class I nuclear facilities and uranium mines and mills*, 2011.

<sup>23</sup> CSA Group, CSA N288.6, *Environmental risk assessments at Class I nuclear facilities and uranium mines and mills*, 2012.

<sup>24</sup> CSA Group, CSA N288.7, *Groundwater protection programs at Class I nuclear facilities and uranium mines and mills*, 2015.

82. OPG must satisfy the requirements of federal and provincial laws with respect to species at risk, including the Ontario [\*Endangered Species Act\*](#)<sup>25</sup> (ESA) and federal [\*Species at Risk Act\*](#)<sup>26</sup> (SARA). OPG provided updated information regarding the species at risk identified on the DNNP site, including the Bank Swallow, Eastern Wood-Pewee, Olive-sided Flycatcher, Canada Warbler, Wood Thrush, Bobolink, Eastern Meadowlark, Common Snapping Turtle, American Eel and Lake Sturgeon, as well as a new Butternut tree sapling. CNSC staff reported that OPG's existing mitigation and commitments remain appropriate to address the protection of species at risk. OPG is required to obtain permits to conduct work that might affect identified species at risk.
83. The number of Bank Swallows on the DNNP site has been in decline in recent years. OPG submitted that it continues to monitor Bank Swallow colonies on the DNNP site, and to explore options for artificial nesting structures. OPG has also continued facilitating the collaboration of research on the decline of Bank Swallows with government, non-government organizations and industry. CNSC staff reported that the CNSC and Environment and Climate Change Canada (ECCC), including the Canadian Wildlife Service, have been involved in discussions with OPG regarding Bank Swallows. CNSC and ECCC staff review OPG's annual monitoring reports detailing the Bank Swallow burrow counts and occupancy studies, as well as the development and monitoring of artificial nesting structures.
84. With respect to the aquatic environment, CNSC staff reported that OPG's updates to baseline data during the current licence period were acceptable. CNSC staff noted that ECCC and Fisheries and Oceans Canada (DFO) also review OPG's methodology and results.
85. OPG's licensing basis requires that no lake infill is to occur during site preparation unless there is certainty that the DNNP will proceed, and appropriate mitigation measures and habitat compensation have been implemented. An authorization under subsection 35(1) of the [\*Fisheries Act\*](#)<sup>27</sup> (FA) is also required prior to any lake infill taking place. As part of this authorization, OPG would have to develop a Fish Habitat Compensation Plan acceptable to DFO.
86. Asked to provide DFO's perspective regarding the licence application, a representative from DFO stated that DFO did not have any concerns. The DFO representative confirmed that OPG had not made any submissions seeking a *Fisheries Act* authorization. The DFO representative noted that any such request would identify the location and extent of any infill, and which fish and fish habitats would be impacted. The DFO representative further stated that DFO would work with OPG and the CNSC to avoid or minimize impacts on fish and fish habitat.

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<sup>25</sup> 2007, S.O. 2007, c. 6.

<sup>26</sup> S.C. 2002, c. 29.

<sup>27</sup> R.S.C., 1985, c. F-14.

87. A representative from ECCC stated that ECCC continues to work with the CNSC, in accordance with the memorandum of understanding between the two organizations. The ECCC representative confirmed that ECCC is satisfied with OPG's progress in addressing its commitments, including updated baseline and environmental studies, and that ECCC has no concerns with respect to OPG's application to renew the site preparation licence.
88. The Mohawks of the Bay of Quinte (MBQ) ([CMD 21-H4.61](#)) identified several areas of concern with respect to environmental protection during site preparation, including:
- loss of existing habitats on the site as a result of licensed activities;
  - potential impacts to fish and fish habitat as a result of lake infill;
  - loss of habitat and disturbance of species at risk as a result of bluff removal; and
  - potential impacts to fish and fish habitat as a result of spills and construction activities.
89. The MBQ stressed the importance of OPG's commitments and mitigation measures, including offsetting habitats, to minimize or avoid adverse effects during site preparation. The MBQ requested that OPG notify the MBQ of any spills that have the potential to impact Tyendinaga Mohawk Territory lands, waters or residents. The MBQ also noted that there may be an opportunity for OPG to involve the MBQ or other Indigenous groups in its environmental protection activities, such as planning site layouts, transferring plants, and re-planting future habitat on the site.
90. In response to the submissions by the MBQ, OPG representatives reaffirmed OPG's commitment to protect habitat, and minimize potential impacts to fish and fish habitat. OPG representatives stated that OPG would continue to meet with the MBQ and other Indigenous communities in order to seek their input on project planning.
91. The Canadian Association of Nuclear Host Communities ([CMD 21-H4.34](#)) also commented on the loss of habitat as a result of clearing vegetation on the site. The Canadian Association of Nuclear Host Communities supported OPG's planned mitigation measures for re-establishing habitat.
92. The Commission sought additional information concerning the environmental monitoring that is carried out on the entire Darlington site (DNNP and Darlington NGS), as well as plans for stormwater management and groundwater monitoring. Representatives from OPG described OPG's site-wide monitoring programs, including groundwater monitoring. OPG representatives confirmed that detailed stormwater management plans would be developed as part of site preparation for the DNNP.
93. CNSC staff provided information regarding the CNSC's regulatory oversight activities for the DNNP for the proposed licence period. CNSC staff explained that it would oversee work at the site through compliance inspections, reviews of annual reports, reviews of technical studies and monitoring reports, and any necessary follow-up actions. CNSC staff noted that this oversight would include specific activities for

environmental protection. In addition, OPG is required to report events such as spills; such events can be brought to the Commission's attention, as necessary.

94. Based on the assessment of the application and the information provided on the record at the hearing, the Commission is satisfied that, given the mitigation measures and safety programs that are in place to control hazards, OPG will provide adequate protection to the health and safety of persons and the environment throughout the proposed licence period. The Commission is satisfied that OPG meets the requirements of REGDOC-2.9.1, CSA N288.4, CSA N288.5 and CSA N288.6, and has an acceptable implementation plan in place for CSA N288.7.
95. The NSCA provides a strong regulatory framework for environmental protection. The Commission concludes that the environmental protection requirements of the NSCA as they relate to the protection of the environment generally are satisfied.
96. The Commission notes that the renewal of OPG's site preparation licence for the DNNP is not precluded by the possibility of specific requirements pursuant to the *Fisheries Act*, and that this licence renewal does not affect DFO's mandate under the *Fisheries Act*. It will be DFO that will make any decisions under the *Fisheries Act*, and the Commission expects that CNSC staff will provide updates in this regard during the annual presentation of the NPP regulatory oversight report.
97. The Commission acknowledges the views shared by the MBQ. The Commission encourages OPG to continue to engage Indigenous groups and seek opportunities for their involvement in plans for the site.

#### *4.3.8 Emergency Management and Fire Protection*

98. The Commission considered OPG's emergency management and fire protection programs as they relate to site preparation for the DNNP. These programs cover the measures for preparedness and response capabilities in the event of emergencies and non-routine conditions, including nuclear emergency management, conventional emergency response, and fire protection and response. CNSC staff submitted that OPG's Emergency Preparedness Program meets the requirements of REGDOC-1.1.1.
99. OPG's Consolidated Nuclear Emergency Plan (CNEP) details responsibilities and the concept of operations in the event of an emergency at the Darlington site, including site evacuation. The CNEP reflects applicable regulatory documents, as well as the Provincial Nuclear Emergency Response Plan (PNERP) and the PNERP Darlington Implementing Plan for the Darlington Nuclear Generating Station (2019). OPG's emergency preparedness plans are integrated with those of the Province of Ontario, Region of Durham, Municipality of Clarington, and international partners.
100. OPG has agreements with the Municipality of Clarington, Region of Durham and the Province of Ontario which outline how their emergency services will provide support



to OPG in the event of an emergency. OPG has committed to continue meeting with these stakeholders on an annual basis.

101. With respect to the exclusion zone for the DNNP, CNSC staff determined that the established exclusion zone of no more than 500 metres remains suitable for the DNNP. CNSC staff explained that revised planning zones for the PNERP and CNSC [REGDOC-2.10.1, Nuclear Emergency Preparedness and Response, Version 2](#), have not changed the Exclusion Zone determination from OPG's original licence application. OPG has provided off-site planning authorities a revised Evacuation Time Estimate using the 2016 National Census Data with projections out to 2028. Nuclear safety analysis, inclusive of consequential events and reasonable combinations of independent events, will inform the emergency planning once a reactor design has been selected.
102. OPG has identified the emergency plans and required deliverables to progress to site preparation activities. These deliverables are reflected in OPG's Commitments Report, and include the following:
  - DNNP Emergency Preparedness Plan;
  - EPC Emergency Response and Evacuation Plan;
  - EPC Fire Prevention and Response Plan;
  - Evidence of OPG review and acceptance of EPC plans; and
  - Development of implementing procedures addressing OPG's Emergency Preparedness requirements for DNNP.
103. With respect to fire protection, OPG submitted that it would have policies, procedures, and programs in place for fire prevention, fire notification and immediate response in accordance with *National Fire Code of Canada*, *National Building Code of Canada* and applicable codes, standards and regulations.
104. OPG has further commitments to update emergency planning once a reactor design has been selected. The updated planning will incorporate nuclear safety analysis, inclusive of consequential events and reasonable combinations of independent events.
105. The Canadian Association of Physicians for the Environment, and Durham Nuclear Awareness / Canadian Environmental Law Association, expressed concerns with respect to emergency planning for the DNNP, commenting on the lack of availability of a PNERP Technical Study from the Office of the Fire Marshall and Emergency Management. The Office of the Fire Marshall and Emergency Management assured the Commission that the study would be made available within a matter of weeks<sup>28</sup>. The Commission does not consider the availability of the PNERP technical study to be material to its decision on the matter of this licence renewal.

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<sup>28</sup> On August 16, 2021, the CNSC announced that the Technical Study Report of the Provincial Nuclear Emergency Response Plan was available through the Emergency Management Ontario [website](#).

106. Based on the information provided on the record for this hearing, the Commission is satisfied with OPG's programs to manage conventional emergencies during site preparation for the DNNP. The Commission is satisfied that OPG has an adequate fire protection program in place that meets regulatory requirements. The Commission concludes that the emergency management preparedness programs and the fire protection measures in place, and that will be in place during the proposed licence period, are adequate to protect the health and safety of persons and the environment.
107. Based on the information considered for this hearing, the Commission is satisfied that the exclusion zone around the DNNP site remains appropriate for the purpose of site preparation.

#### *4.3.9 Waste Management*

108. The Commission assessed OPG's management program as it relates to site preparation for the DNNP. CNSC staff submitted that OPG's plans and commitments address the criteria of REGDOC-1.1.1 and other applicable regulatory requirements related to waste management.
109. The site preparation activities licensed for the DNNP do not involve the handling of radioactive materials and will not generate any radioactive wastes. To date, no hazardous wastes have been generated at the DNNP. Any hazardous substances that may be present and/or hazardous wastes that may be generated as a result of site preparation activities will be limited to those utilized during standard construction processes.
110. OPG submitted that its existing commitments for waste management remain appropriate, and that it would develop a hazardous waste management plan prior to the commencement of site preparation activities. In addition to the hazardous waste management plan, OPG will characterize the soil on the DNNP site, and develop plans for spill prevention and response. CNSC staff will confirm and verify that OPG's plans are acceptable, and that they meet regulatory requirements, prior to the conduct of site preparation activities.
111. Based on the above information and consideration of the hearing materials, the Commission is satisfied that OPG has appropriate programs in place, and that its proposed plans to safely manage waste generated during site preparation are acceptable. CNSC staff will verify that OPG's detailed plans meet regulatory requirements.

#### *4.3.10 Security*

112. The Commission examined OPG's security program as it relates to site preparation for the DNNP, which is required to implement and support the security requirements

stipulated in the relevant regulations and the licence. This includes compliance with the applicable provisions of the GNSCR and the *Nuclear Security Regulations*.

113. OPG has a security program in place at the Darlington site that ensures the security of OPG's assets through physical and administrative security measures utilizing equipment, personnel and procedures. OPG submitted that the activities authorized for the DNNP have limited nuclear security impact. Consequently, OPG's security program for the DNNP during site preparation is focused primarily on ensuring that the selected site remains suitable for a new nuclear development from a security perspective, mitigating risk to existing Darlington Nuclear facilities, and protecting prescribed information.
114. As part of its application, OPG conducted a review to address updates in requirements its original application. The review included an updated site specific threat and risk assessment, as well as reviews against security-related current codes and standards, and REGDOC-1.1.1. OPG stated that its review did not identify any gaps with the requirements of modern codes and standards or REGDOC-1.1.1.
115. CNSC staff submitted that OPG meets the requirements of the *Nuclear Security Regulations*, REGDOC-1.1.1 and [REGDOC-2.12.2, Site Access Security Clearance](#). CNSC staff stated that OPG's application included supporting information on the management of prescribed information, site security measures, access control, and site access clearance. CNSC staff stated that OPG's cyber security program meets the security requirements of REGDOC-1.1.1.
116. An intervenor, Louis Bertrand ([CMD 21-H4.47](#)), raised concerns with respect to cybersecurity. Mr. Bertrand expressed the opinion that the existing regulatory requirements and guidance for cybersecurity, including CSA standard N290.7-14, *Cyber security for nuclear power plants and small reactor facilities*, and CNSC [REGDOC-2.5.2, Design of Reactor Facilities, Version 2](#), may not be adequate in light of recent high-profile events in this area. Asked to discuss the applicability of this issue to the DNNP, and site preparation activities in general, OPG representatives noted that OPG's security program incorporates cybersecurity, and that OPG's cybersecurity program meets the requirements set out in CSA N290.7-14. The OPG representative explained that OPG's threat and risk assessment includes cybersecurity, and that OPG continually improves its program based on operating experience and new information. OPG representatives indicated that, while cybersecurity will be an important aspect for future licensing phases, activities undertaken under the site preparation licence would not include elements, such as operating software, that would represent a greater risk for cybersecurity. CNSC staff confirmed that the CSA standard requires that licensees reassess and update their cybersecurity programs based on emerging information. The Commission understands that cybersecurity has limited relevance to site preparation activities, and is satisfied that OPG has adequate measures in place.
117. On the basis of the information provided on the record for this hearing, the Commission is satisfied that OPG's performance with respect to maintaining security

for the DNNP has been acceptable. The Commission concludes that OPG has made adequate provision for the physical security of the DNNP site, and is of the opinion that OPG will continue to do so during the proposed licence period. The Commission is satisfied that OPG's cybersecurity program is adequate for the licensed activities.

#### *4.3.11 Safeguards and Non-Proliferation*

118. The Commission examined the adequacy of OPG's safeguards program as it relates to site preparation for the DNNP. The CNSC's regulatory mandate includes ensuring conformity with measures required to implement Canada's international obligations under the [\*Treaty on the Non-Proliferation of Nuclear Weapons\*](#)<sup>29</sup> (NPT). Pursuant to the NPT, Canada has entered into a [\*Comprehensive Safeguards Agreement\*](#) and an [\*Additional Protocol\*](#) (safeguards agreements) with the IAEA. The objective of these agreements is for the IAEA to provide credible assurance on an annual basis to Canada and to the international community that all declared nuclear material is in peaceful, non-explosive uses and that there is no undeclared nuclear material or activities in this country.
119. OPG stated that, during site preparation activities, there will be no nuclear material or controlled nuclear components encompassed by the site preparation licence. OPG will manage applicable requirements using processes established in OPG's safeguards program. For DNNP site preparation activities, two requirements of [\*REGDOC-2.13.1, Safeguards and Nuclear Material Accountancy\*](#) are applicable:
- Annual declaration on general plans for the succeeding 10-year period relevant to the development of the nuclear fuel cycle, including the preparation for new facilities, and
  - Complementary access requested by the IAEA for an inspection or design information verification.
120. CNSC staff reported that OPG meets regulatory requirements for information and documentation under the Safeguards and Non-Proliferation SCA as it pertains to a site preparation licence. CNSC staff noted that it would engage with OPG regarding the development of a preliminary Design Information Questionnaire once a reactor technology has been selected.
121. Based on the above information, the Commission is satisfied that, with respect to site preparation for the DNNP, OPG has provided for, and will continue to provide for, the implementation of adequate measures in the areas of safeguards and non-proliferation that are necessary for maintaining national security and measures necessary for implementing international agreements to which Canada has agreed.

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<sup>29</sup>*Treaty on the Non-Proliferation of Nuclear Weapons* (1968), IAEA Doc. INFCIRC/140, 729 UNTS 169, entered into force 5 March 1970 (NPT).

#### *4.3.12 Conclusion on Safety and Control Areas*

122. The Commission concludes that OPG is qualified to carry on the activity that the licence will authorize. The Commission is of the opinion that OPG, in carrying on 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.

### **4.4 Indigenous Consultation and Engagement**

#### *4.4.1 Indigenous Consultation*

123. Indigenous consultation and engagement are not part of an SCA but remain an important component of the CNSC regulatory framework. These components of the regulatory framework address issues such as the CNSC's own efforts toward reconciliation and discharge of the common law duty to consult with Indigenous peoples pursuant to section 35 of the [\*Constitution Act, 1982\*](#), as well as the licensee's Indigenous engagement activities.
124. The duty to consult is engaged wherever the Crown has "knowledge, real or constructive, of the potential existence of an Aboriginal right or title and contemplates conduct that might adversely affect it".<sup>30</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 it has met the duty prior to making the relevant licensing decision.
125. CNSC staff submitted that the duty to consult is not engaged by this decision because the proposed licence renewal would not cause any adverse impacts to any established or potential Indigenous and/or treaty rights. As OPG is currently not proposing any changes to its licensed activities or the project footprint, the Commission concludes that the renewal of existing authorized activities under this proposed licence does not give rise to novel adverse impacts that engage the consultation duty.<sup>31</sup>

#### *4.4.2 Indigenous Engagement*

126. In light of the Commission's ongoing commitment to ensuring, supporting and encouraging relationship building and meaningful engagement with Indigenous communities, the Commission considered information regarding activities carried out independently by both CNSC staff and OPG.

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<sup>30</sup> *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73 at para 35

<sup>31</sup> *Rio Tinto Alcan v. Carrier Sekani Tribal Council*, 2010 SCC 43[2010] 2 S.C.R. 650 at paras 45 and 49.

Indigenous engagement by CNSC staff

127. CNSC staff submitted that the CNSC is committed to meaningful, ongoing engagement with Indigenous communities that have an interest in CNSC regulated facilities and activities. With respect to the DNNP, CNSC staff reported having engaged with interested Indigenous communities over the current licence period, including discussing topics of interest and addressing concerns.
128. CNSC staff submitted that it encouraged Indigenous communities' participation in this hearing process and provided information about the availability of participant funding to facilitate participation and details on how to participate. CNSC staff also submitted that it had sent letters of notification in October 2020, and follow-up telephone calls and emails in November 2020, to the following identified First Nation and Métis groups who may have an interest in OPG's licence renewal for the licence to prepare site for the DNNP:
- Mississauga of the Credit First Nation
  - the Métis Nation of Ontario – Region 8
  - the Mohawks of the Bay of Quinte
  - Williams Treaties First Nations (Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation, Mississauga of Scugog Island First Nation, Chippewas of Beausoleil First Nation, Chippewas of Georgina Island First Nation, and Chippewas of Rama First Nation)
129. CNSC staff reported that, in February 2021, CNSC staff met virtually with members of the Williams Treaties First Nations, including Curve Lake and Hiawatha First Nations, the Mohawks of the Bay of Quinte, as well as the Métis Nation of Ontario (separately) to discuss the DNNP licence renewal and related regulatory review process. CNSC staff reported that it had not been made aware at that time of any specific concerns concerning OPG's licence renewal application for the DNNP.
130. CNSC staff continues to develop a structured, formalized approach to ensure continued engagement and information sharing with all interested Indigenous communities and organizations regarding issues related to the DNNP. For example, CNSC staff and Curve Lake First Nation signed a Terms of Reference for Long-Term Engagement and Collaboration in February 2021.

Indigenous Engagement by OPG

131. The Commission examined the information submitted by OPG regarding its ongoing engagement with Indigenous groups respecting the DNNP site. OPG reported engaging with the identified Indigenous communities having established or asserted rights and/or interests in the vicinity of the Darlington New Nuclear Project, including:
- Williams Treaties First Nations
    - Beausoleil First Nation

- Chippewas of Rama First Nation
    - Chippewas of Georgina Island
    - Mississaugas of Scugog Island
    - Hiawatha First Nation
    - Curve Lake First Nation
    - Alderville First Nation
  - Mohawks of the Bay of Quinte
  - Métis Nation of Ontario, Region 8
132. OPG reported that its engagement activities have included inviting Indigenous communities (particularly the Williams Treaties First Nations) to participate in the environmental monitoring process for both PNGS and DNGS, and offering tours of the DNNP site. OPG noted that guidance from Indigenous communities has focused on the protection of the natural environment, nuclear safety and the need for ongoing, respectful and meaningful engagement/consultation. According to OPG, issues and concerns raised with respect to site preparation include potential salt run-offs from roads into the water, wildlife monitoring, animal access to lands, environmental reporting, and OPG's ability to account for climate change and seismic events within its Project plans.
133. OPG described its ongoing disposition of Indigenous artifacts uncovered during the environmental assessment for the DNNP. OPG has liaised with the Williams Treaties First Nations and the Ministry of Heritage, Sport, Tourism and Culture Industries for the repatriation of the items for their curation and display at Curve Lake First Nation. As part of OPG's recognition of the DNNP site's Indigenous history, OPG plans to collaborate with the Curve Lake First Nation to include artifacts at the planned Darlington Campus Building.
134. In addition, OPG described its programs to support training and employment for Indigenous persons, including a program to place Indigenous peoples in the building trades in co-operation with OPG's partnering unions and vendors.
135. CNSC [REGDOC-3.2.2, Indigenous Engagement, Version 1.1](#) sets out requirements and guidance for licensees whose proposed projects may raise the Crown's duty to consult. CNSC staff submitted that while OPG's application for licence renewal does not raise the formal requirements of REGDOC-3.2.2, OPG has demonstrated adequate Indigenous engagement regarding the DNNP. CNSC staff indicated that it would continue to monitor, and where appropriate, participate in OPG's engagement activities.

#### Submissions by Indigenous Groups

136. The Commission received interventions from the Curve Lake First Nation (CLFN) (CMD [21-H4.60](#)) and the Mohawks of the Bay of Quinte (MBQ) ([CMD 21-H4.61](#)).

137. The CLFN expressed that it wants to be meaningfully engaged and consulted, and acknowledged that both the CNSC and OPG had committed to building meaningful relationships with the CLFN. The CLFN explained that there is a spectrum of consultation and engagement – beginning with information sharing and progressing towards a sustainable and empowered relationship – and that the CLFN was hopeful that it would reach this stage with the CNSC and OPG. The CLFN described its ongoing engagement with the CNSC and OPG, including regular meetings, and noted the importance of environmental protection and sustainability. The CLFN’s CMD summarizes the CLFN’s objectives, specific topics, values and principles, and perspectives in the ongoing process.
138. With respect to the matter of OPG’s application to renew its site preparation licence for the DNNP, the CLFN submitted that its primary concern was generally ensuring that its relationships with OPG and the CNSC continue to grow, and that all perspectives be considered as the process continues. Representatives from OPG affirmed OPG’s commitments to continue to progress in its engagement and building relationships with the CLFN and other members of the Williams Treaties First Nations. OPG has initiated conversations with the CLFN to involve the CLFN in OPG’s environmental programs for all stages of the DNNP.
139. CNSC staff reiterated the CNSC’s commitment to reconciliation and relationship building with the CLFN. CNSC staff noted that the CNSC and CLFN’s recently-signed Terms of Reference for Long-Term Engagement With the Curve Lake First Nation sets out the framework for achieving the desired outcome for collaboration and engagement. CNSC staff noted that the CNSC has begun to incorporate Indigenous knowledge into its environmental protection framework, such as through environmental risk assessments and the Independent Environmental Monitoring Program.
140. On the subject of Indigenous knowledge, an OPG representative committed that OPG would work with the CLFN and other Williams Treaties First Nations to develop a meaningful approach to understanding how Indigenous knowledge could be applied to the DNNP.
141. Asked to describe the concept of “shifting baseline” and different perspectives, the CLFN representatives explained that Indigenous communities would consider a “baseline” state for a site to be before the site was altered, whereas western science considers the baseline to be at more recent points in time when samples are taken, the site having already been altered. Further to that point, the CLFN representatives explained the difference between a sampling plan and the information one would get through traditional year-round harvesting, such as fishing. The Commission appreciates this clear explanation of the different perspectives.
142. In its submission, the MBQ provided an overview of its review of the materials for this hearing, as well as information obtained through meetings with OPG and the CNSC. The MBQ emphasized the importance of protecting the natural environment, and noted



that the MBQ has concerns with nuclear energy, the storage of waste, and new nuclear technology. The specific concerns raised by the MBQ in relation to OPG's licence renewal application are addressed in the Environmental Protection section of this Record of Decision.

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

143. The Commission acknowledges the current efforts and commitments made by OPG in relation to Indigenous engagement and CNSC staff's efforts in this regard on behalf of the Commission. Based on the information presented on the record for this hearing, the Commission concludes that the renewal of existing authorized activities under this proposed licence does not give rise to potential novel adverse impacts that engage the consultation duty. The Commission is also of the opinion that the engagement activities taken for the review of the licence renewal application have been adequate.
144. The Commission greatly values and appreciates the input and perspectives of the CLFN and the MBQ in relation to this matter. The Commission expects CNSC staff to continue to build meaningful long-term relationships with Indigenous communities as part of the CNSC's reconciliation efforts. Respecting the licensee, the Commission expects OPG to fulfil its commitment to meaningfully incorporate Indigenous knowledge in the DNNP process and looks forward to information updates in due course.

#### **4.5 Other Matters of Regulatory Interest**

145. The Commission examined other matters of regulatory interest with respect to this matter, including participant funding, public engagement, decommissioning plans and financial guarantee, and cost recovery.

##### *4.5.1 CNSC Participant Funding Program*

146. The Commission assessed the information CNSC staff provided regarding the CNSC's [Participant Funding Program](#) (PFP) as it related to this matter. CNSC staff submitted that, in [October 2020](#), up to \$100,000 in funding to participate in this licensing process was made available to Indigenous groups, members of the public and other stakeholders to review OPG's licence renewal application and associated documents, and to provide the Commission with value-added information through topic-specific interventions.
147. A Funding Review Committee (FRC), independent of the CNSC, recommended that [7 applicants](#) be provided with up to \$81,452.38 in participant funding. These applicants were required, by virtue of being awarded participant funding, to submit a written

intervention and make an oral presentation at the public hearing. Participant funding was awarded to the following recipients:

- Mohawks of the Bay of Quinte
- Dr. Jerry Cuttler
- Curve Lake First Nation
- Northwatch
- Canadian Association of Nuclear Host Communities
- Canadian Environmental Law Association
- Canadian Nuclear Workers' Council

148. The Commission is satisfied that Indigenous groups, members of the public and other stakeholders were properly notified of OPG's application and were provided with sufficient information on how to participate in the licence renewal process. The Commission notes that PFP was made available to Indigenous communities and the public to support their participation.

#### *4.5.2 Public Engagement*

149. The Commission assessed OPG's public information and disclosure program (PIDP) for the DNNP. A public information program is a regulatory requirement for licence applicants and licensed operators of Class I nuclear facilities. Paragraph 3(j) of the *Class I Nuclear Facilities Regulations* requires that licence applications include

“the proposed program to inform persons living in the vicinity of the site of the general nature and characteristics of the anticipated effects on the environment and the health and safety of persons that may result from the activity to be licensed.”

150. The Commission assessed how OPG's PIDP met the specifications of CNSC [REGDOC-3.2.1, Public Information and Disclosure](#). OPG's PIDP includes activities such as:

- sharing information online
- a public information center;
- social media;
- community outreach activities;
- quarterly newsletters; and
- participation in local community groups including Durham Nuclear Health Committee and the Darlington Community Advisory Council.

151. OPG reported that general feelings of personal health, safety and community satisfaction had not changed significantly since its previous licence application.

152. OPG has committed to provide a Communications, Consultation and Stakeholder Relations Program to the CNSC, no later than 60 days prior to commencement of licensed activities.
153. CNSC staff assessed that the DNNP PIDP is based on OPG's long-standing public information program for the Darlington NGS, and that it meets the regulatory requirements of REGDOC-3.2.1.
154. Several intervenors, including the Pickering Nuclear Advisory Council, the Darlington Nuclear Advisory Council, the Municipality of Clarington, the Canadian Association of Nuclear Host Communities, and the Regional Municipality of Durham, expressed support for OPG's relationship with local communities, and noted that OPG routinely consults and shares information with stakeholders.
155. Based on the information presented for this hearing, the Commission is satisfied that OPG's PIDP for the DNNP has and will continue to communicate to the public information about the health, safety and security of persons and the environment and other issues related to the DNNP.
156. Based on the information presented, the Commission is satisfied that OPG's PIDP meets regulatory requirements and is effective in keeping Indigenous groups and the public informed of the DNNP. The Commission encourages OPG to continue creating, maintaining and improving its dialogue with the neighbouring communities.

#### *4.5.3 Decommissioning Plans and Financial Guarantee*

157. The Commission requires that OPG have operational plans for the decommissioning and long-term management of waste produced during the lifespan of the DNNP. In order to ensure that adequate resources are available for safe and secure future decommissioning of the DNNP site, the Commission requires that an adequate financial guarantee for realization of the planned activities is put in place and maintained in a form acceptable to the Commission throughout the licence period.
158. OPG currently has a preliminary decommissioning plan (PDP) in place for site preparation. This plan describes the decommissioning of the site in the event the project is cancelled after the site has been prepared for construction. OPG has committed to update the PDP for site preparation when OPG requests authorization to commence site preparation activities to allow more substantive site preparation work. CNSC staff submitted that OPG's proposed approach to decommissioning for site preparation remains acceptable.
159. OPG also has a PDP for the end-of-life of the DNNP. In reviewing its PDP against the requirements and guidance of REGDOC-1.1.1, and CSA Group standard CSA N294-09, *Decommissioning of facilities containing nuclear substances*<sup>32</sup>, OPG identified the

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<sup>32</sup> CSA Group, CSA N294, *Decommissioning of facilities containing nuclear substances*, 2009.

need to address minor gaps. OPG has committed to address these minor gaps when the PDPs are next revised. The decommissioning plan must be kept current to reflect any changes in the site or nuclear facility and revised at a minimum every five years, or as specified by the Commission.

160. OPG's financial guarantee for decommissioning is valued at \$0.00, as no licensed activities are currently being conducted at the site. OPG's licence does not include work that would require decommissioning of the site should the project be cancelled. OPG's financial guarantee must be reviewed and revised every five years, following a revision of the PDP that significantly impacts the financial guarantee, or if required by the Commission. OPG's next update of the financial guarantee is expected in 2022. CNSC staff assessed that OPG's proposed approach for the financial guarantee is acceptable.
161. OPG's commitments require that OPG re-evaluate both the preliminary decommissioning plan and financial guarantee prior to seeking to commence more substantive site preparation work. The Commission sought clarification with respect to the process for this re-evaluation. CNSC staff explained that in re-evaluating those documents, OPG would need to propose a satisfactory end-state commensurate with the licensed activities, adequately address the work required to return the site to the defined end state, and provide a cost estimate for that work. OPG would also have to propose an appropriate and adequate financial guarantee. CNSC staff noted that the PDP and financial guarantee would continue to be re-evaluated for each licensing phase of the DNNP. OPG representatives concurred, and noted that, should the DNNP not proceed, the DNNP site could also be used to support the Darlington NGS. OPG has an existing financial guarantee for [its other licensed facilities](#), including the Darlington NGS.
162. Based on this information considered at this hearing, the Commission concludes that the preliminary decommissioning plan and related financial guarantee for site preparation for the DNNP are acceptable for the purpose of this licence renewal. As financial guarantees remain a matter for Commission acceptance, the Commission will consider any future updates to the financial guarantee as applicable.

#### 4.5.4 Cost Recovery

163. The Commission examined OPG's standing under the *Cost Recovery Fees Regulations*<sup>33</sup> (CRFR) requirements for the DNNP. Paragraph 24(2)(c) of the NSCA requires that a licence application is accompanied by the prescribed fee, as set out by the CRFR and based on the activities to be licensed. CNSC staff reported that OPG is in good standing with respect to meeting CRFR requirements for the DNNP.

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<sup>33</sup> SOR/2003-212.

164. Based on the information submitted by CNSC staff, the Commission is satisfied that OPG has satisfied the requirements of the CRFR for the purpose of this licence renewal.

#### *4.5.5 Nuclear Liability Insurance*

165. CNSC staff reported that the [\*Nuclear Liability and Compensation Act\*](#)<sup>34</sup> (NLCA) does not apply with respect to site preparation for the DNNP, as the DNNP is not designated a nuclear installation for the purpose of that Act. The NLCA would apply in future licensing stages, should OPG apply for and be successful in obtaining a licence to operate a power reactor for the DNNP.
166. Based on the information provided on the record for this hearing, the Commission is satisfied that the NLCA does not apply for the purpose of this licence renewal.

### **4.6 Licence Length and Conditions**

167. The Commission considered OPG's application for the renewal of the current power reactor site preparation licence for the DNNP for a period of 10 years. OPG's current licence, PRSL 18.00/2022, expires on August 17, 2022.

#### *4.6.1 Licence Length*

168. OPG is requesting a 10-year term to allow for the DNNP to advance in accordance with OPG's current business planning assumptions for new nuclear power generation. CNSC staff recommended the renewal of the licence for a period of 10 years, until 2031, submitting that OPG is qualified to carry on the licensed activities authorized by the licence.
169. Asked to explain the rationale for OPG's early application to renew its licence, an OPG representative stated that the earlier renewal would enable OPG to proceed with business planning for the DNNP, such as selecting a technology, with the assurance that it has a valid licence for the period beyond the expiry of its current licence.
170. The Commission sought further understanding of OPG's planning timeline for the DNNP, and how site preparation activities would occur during the requested licence period. OPG representatives explained that the majority of the work would be undertaken following the selection of a technology for the DNNP, at which point OPG would be able to develop specific plans, including a site layout. The OPG representatives suggested that OPG could begin site preparation in spring 2022, and that OPG was anticipating beginning construction around 2024-25.

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<sup>34</sup> S.C. 2015, c. 4, s. 120.

171. Asked about OPG's longer-term plans to develop the DNNP, an OPG representative stated that while OPG had not yet made decisions about the full extent of development on the site, any development would be constrained by the EA for the DNNP. The OPG representative did not rule out that OPG could apply to renew the site preparation in 10 years time.
172. Some intervenors, including the Canadian Association of Physicians for the Environment and Durham Nuclear Awareness /Canadian Environmental Law Association, submitted that the 10-year licence term was not appropriate, and expressed the concern that this would inhibit future evaluation of OPG's selected reactor technology and the continued appropriateness of the site. As previously mentioned in this Record of Decision, however, any chosen technology will be subject to a future Commission licensing decision, should OPG come forward with an application for a licence to construct a reactor at the site. Any such decision would be made in the context of a public hearing, regardless of the term for this site preparation licence.
173. CNSC staff proposed to provide the Commission with regular updates on the performance of OPG and the DNNP as part of the CNSC's *Regulatory Oversight Report for Canadian Nuclear Power Generating Sites*. This report would be presented at a public proceeding of the Commission, where members of the public will be able to participate. The Commission agrees that this periodic reporting is appropriate, and that it would provide the opportunity for interested parties and Indigenous groups to participate.
174. The Commission finds the requested 10-year term for the renewed licence to be reasonable and appropriate, on the basis of OPG's past performance and the Commission's current practice with respect to licence terms. There will be opportunities for public participation during the renewed 10-year licence period through periodic reporting to the Commission. Regardless of the term for this site preparation licence, any chosen technology will be subject to a future Commission licensing decision, should OPG come forward with an application for a licence to construct a reactor at the site.

#### 4.6.2 Licence Conditions

175. OPG is requesting to renew the licence "as is" with no change or increase in scope. That is, OPG is seeking authorization for site preparation activities as listed in the existing licence. OPG has committed that "all implementing documents required for site preparation will be in place prior to the start of the licensed activities."
176. CNSC staff's CMD 21-H4 includes a proposed licence with the same licensed activities and updated licence conditions. As described in CMD 21-H4, the proposed licence includes updates to align with CNSC standardized licence conditions, adds new conditions to align with CNSC REGDOC-1.1.1, and combines or removes redundant

licence conditions. CNSC staff proposed site-specific licence condition 15.1 to ensure that OPG implements the mitigation measures proposed and commitments made during the JRP review process. Proposed licence condition 15.2 requires OPG to implement and maintain an environmental assessment follow-up program. The requirements associated with proposed licence conditions 15.1 and 15.2 are the same as those in licence conditions 10.1, 10.2 and 10.3 of the current licence.

177. Licence condition 1.1 in OPG's current licence requires that OPG have the documents required for site preparation accepted by the Commission, or a person authorized by the Commission, prior to the commencement of licensed site preparation activities. This condition is absent from the proposed licence, with CNSC staff explaining that it is not necessary, given that OPG is also required to comply with proposed licence condition 15.1 and 15.2.
178. The draft licence condition handbook (LCH) accompanying the proposed licence explains that licence condition 15.1 provides CNSC staff the opportunity to review and verify that the implementing documents necessary for site preparation are in place prior to the commencement of the licensed activities. According to the LCH, OPG is required to submit documentation for the deliverables described in the OPG Commitments Report no later than 90 calendar days prior to the planned commencement of the licensed activities, or as otherwise agreed to. The LCH also identifies the required JRP recommendations and associated OPG commitments applicable to site preparation.
179. The Commission understands that while certain activities could be undertaken prior to the selection of a technology, OPG is also required to submit detailed plans and documentation to the CNSC prior to commencing any site preparation activities. Asked to explain how OPG planned to proceed with site preparation activities, OPG representatives stated that, in accordance with the proposed licence condition 15.1, OPG would submit its documentation to the CNSC at least 90 days prior to start of site preparation activities. OPG representatives noted that the earliest activities would include roads, parking lots, site services and administration buildings.
180. Several intervenors, including the Canadian Association of Physicians for the Environment, Northwatch and Durham Nuclear Awareness / Canadian Environmental Law Association, expressed the view that because OPG was requesting to renew its licence before selecting a technology, the assessment of whether the chosen technology would fit within the parameters of the EA and PPE was being left to CNSC staff, rather than the Commission.
181. In the hearing, CNSC staff stated that such an assessment would only be made insofar as it pertains to the activities under that licence. CNSC staff explained that it would assess OPG's documentation for any chosen technology against the requirements of REGDOC-1.1.1 and licence conditions 15.1 and 15.2, and that OPG would be expected to demonstrate that the conclusions of the EA remain valid for the site preparation phase of the DNNP. The Commission is satisfied that CNSC staff's assessment with

respect to the site preparation licence would serve to verify OPG's compliance with requirements under that licence. Furthermore, a decision about the chosen technology being within the PPE for the EA would be made by the Commission at the time of an application for a licence to construct.

182. The Commission disagrees with CNSC staff's proposed removal of the current licence's licence condition 1.1. Given the number of commitments OPG has made, it is the Commission's view that the express requirement that OPG's documents be accepted by the Commission, or a person authorized by the Commission, provides a clear regulatory hold point to confirm that OPG's documentation is acceptable. The Commission adds the following licence condition 15.3 to the proposed licence:

The licensee shall have the documents required for site preparation accepted by the Commission, or a person authorized by the Commission, prior to the commencement of the licensed activities described in Part IV (i) of this licence.

183. The Commission is satisfied that it can renew this licence without OPG having selected a technology, as this approach is in keeping with the existing EA and the current licence. The Commission also recognizes that OPG would likely not proceed with commencing site preparation activities until it has selected a technology.

#### *4.6.3 Delegation of Authority*

184. In order to provide adequate regulatory oversight of changes that are administrative in nature, and that do not require a licence amendment nor Commission approval, CNSC staff recommended that the Commission delegate authority for certain approval or consent, as contemplated in licence conditions that contain the phrase "a person authorized by the Commission," to the following CNSC staff:

- Director, New Major Facilities Licensing Division
- Director General, Directorate of Regulatory Improvement and Major Projects Management
- Executive Vice-President and Chief Regulatory Operations Officer, Regulatory Operations Branch

185. The Commission accepts the delegation of authority, and notes that this delegation of authority would also apply to the additional licence condition 15.3. The Commission is satisfied that this approach is consistent with the current licence.

#### *4.6.4 Conclusion on Licence Length and Conditions*

186. Based on the information examined by the Commission during the course of this hearing, the Commission is satisfied that a 10-year licence is appropriate for the site



preparation licence for the DNNP. The Commission accepts the licence conditions as recommended by CNSC staff, with the addition of licence condition 15.3, as follows:

The licensee shall have the documents required for site preparation accepted by the Commission, or a person authorized by the Commission, prior to the commencement of the licensed activities described in Part IV (i) of this licence.

187. The Commission also accepts CNSC staff's recommendation regarding the delegation of authority, and notes that it can bring any matter to the Commission as required.

## 5.0 CONCLUSION

188. Based on its consideration of the information submitted, the Commission is satisfied that the application submitted by OPG meets the requirements of the NSCA, the GNSCR and other applicable regulations made under the NSCA.
189. The Commission is satisfied that OPG meets the test set out in subsection 24(4) of the *Nuclear Safety and Control Act*. That is, the Commission is of the opinion that OPG is qualified to carry on the activity that the proposed licence will authorize and that it 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.
190. Therefore, the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, renews the nuclear power reactor site preparation licence issued to Ontario Power Generation Inc. for its Darlington New Nuclear Project located in the Municipality of Clarington, Ontario. The renewed licence, PRSL 18.00/2031, is valid from October 12, 2021 until October 11, 2031. The renewed licence replaces the current power reactor site preparation licence, PRSL 18.00/2022.
191. The Commission includes in the licence the conditions as recommended by CNSC staff in CMDs 21-H4. The Commission adds the following licence condition 15.3 to the proposed licence:


The licensee shall have the documents required for site preparation accepted by the Commission, or a person authorized by the Commission, prior to the commencement of the licensed activities described in Part IV (i) of this licence.

The Commission also delegates authority for the purposes of licence conditions 3.2 and 15.3, as recommended by CNSC staff.

192. The Commission is satisfied that an impact assessment under the *Impact Assessment Act* was not required in this matter.

193. With this decision, the Commission directs CNSC staff to report on the performance of OPG and the DNNP, as part of the [\*Regulatory Oversight Report for Canadian Nuclear Power Generating Sites\*](#). CNSC staff shall present such report at a public proceeding of the Commission, where members of the public will be able to participate.
194. The Commission directs CNSC staff to inform the Commission on an annual basis of any changes made to the Licence Conditions Handbook (LCH). CNSC staff may bring any matter to the Commission's attention as required.
195. The Commission directs CNSC staff to continue to build meaningful long-term relationships with Indigenous communities. The Commission expects OPG to fulfil its commitment to meaningfully incorporate Indigenous knowledge in the DNNP process.

Velshi,  
Rumina



Digitally signed by Velshi, Rumina  
DN: C=CA, O=CC, OU=CNSC-CCSN,  
CN=Velshi, Rumina  
Reason: I am the author of this document  
Location: your signing location here  
Date: 2021.10.12 10:09:45  
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October 12, 2021

Rumina Velshi  
President,  
Canadian Nuclear Safety Commission

Date

## Appendix A – Intervenors

Intervenors – Oral Presentations	Document Number
Ontario Clean Air Alliance, represented by J. Gibbons	CMD 21-H4.4
North American Young Generation in Nuclear (NAYGN), represented by M. Mairinger	CMD 21-H4.8
Bruce Power, represented by J. Scongack	CMD 21-H4.9
Terrestrial Energy, represented by S. Irish	CMD 21-H4.14
Organization of Canadian Nuclear Industries, represented by R. Oberth	CMD 21-H4.15
CANDU Owners' Group Inc., represented by S. Smith	CMD 21-H4.20
Municipality of Clarington, represented by A. Foster and F. Langmaid	CMD 21-H4.21 CMD 21-H4.21A
Jerry Cuttler	CMD 21-H4.22 CMD 21-H4.22A CMD 21-H4.22B
Atomic Energy of Canada Limited, represented by F. Dermakar	CMD 21-H4.23
Kinectrics, represented by D. Harris and R. Jayasundera	CMD 21-H4.24 CMD 21-H4.24A
Power Workers' Union, represented by J. Parnell	CMD 21-H4.29
Society of United Professionals, represented by M. Johnston and R. Chatoor	CMD 21-H4.31 CMD 21-H4.31A
USNC-Power, represented by M. Mitchell	CMD 21-H4.32
Canadian Nuclear Association, represented by J. Gorman	CMD 21-H4.35
Canadian Association of Physicians for the Environment, represented by C. Vakil	CMD 21-H4.36
Durham Nuclear Awareness / Canadian Environmental Law Association, represented by K. Blaise and M.V. Ramana	CMD 21-H4.37 CMD 21-H4.37A
Canadian Nuclear Workers' Council, represented by B. Walker	CMD 21-H4.38
GE Hitachi Nuclear Energy, represented by L. McBride	CMD 21-H4.40
Regional Municipality of Durham, represented by E. Baxter-Trahair and C. Goodchild	CMD 21-H4.41 CMD 21-H4.41A
Northwatch, represented by B. Lloyd	CMD 21-H4.43 CMD 21-H4.43A
Louis Bertrand	CMD 21-H4.47 CMD 21-H4.47A
Hatch, represented by A. Jolly	CMD 21-H4.52 CMD 21-H4.52A
Women in Nuclear, represented by L. Fraser and J. Bartley	CMD 21-H4.53
Canadian Electricity Association, represented by M. Powell	CMD 21-H4.54
BWXT Canada Ltd., represented by J. Lundy	CMD 21-H4.55
Westinghouse Electric Canada, Inc., represented by J. Barrett and F. Pineiro	CMD 21-H4.56
North American Young Generation in Nuclear, Durham Chapter, represented by W. Hamouda and P. Sainsbury	CMD 21-H4.57

Intervenors – Oral Presentations	Document Number
Ontario Tech University, represented by A. Tokihuro	CMD 21-H4.58
Darek Kulczyński	CMD 21-H4.59 CMD 21-H4.59A
Curve Lake First Nation, represented by E. Whetung and G. Pritchard	CMD 21-H4.60
Mohawks of the Bay of Quinte, represented by N. Storms and K. Shipley	CMD 21-H4.61

Intervenors – Written Submission	Document Number
Municipality of Port Hope	CMD 21-H4.2
Pickering Nuclear Community Advisory Council	CMD 21-H4.3
Moltex Energy	CMD 21-H4.5
Ontario Chamber of Commerce	CMD 21-H4.6
Greater Oshawa Chamber of Commerce	CMD 21-H4.7
Clarington Board of Trade and Office of Economic Development	CMD 21-H4.10
Énergie NB Power	CMD 21-H4.11
E.S. Fox Limited	CMD 21-H4.12
Darlington Nuclear Community Advisory Council	CMD 21-H4.13
PLC Industrial Constructors Inc.	CMD 21-H4.16
TerraPower	CMD 21-H4.17
SaskPower	CMD 21-H4.18
ARC Clean Energy Canada	CMD 21-H4.19
Ajax-Pickering Board of Trade	CMD 21-H4.25
Canadian Nuclear Laboratories	CMD 21-H4.26
Erwin Dreessen	CMD 21-H4.27
Labourers’ International Union of North America (LiUNA)	CMD 21-H4.28
X-energy Canada Inc.	CMD 21-H4.30
Aecon Nuclear	CMD 21-H4.33
Canadian Association of Nuclear Host Communities	CMD 21-H4.34
AECOM Canada Nuclear Services	CMD 21-H4.39
Ontario Nuclear New Build Council	CMD 21-H4.42
Lindsey Park, Member of the Provincial Parliament, Durham	CMD 21-H4.44
Nuclear Waste Management Organization	CMD 21-H4.45
NuScale Power	CMD 21-H4.46
Kelly Clune	CMD 21-H4.48
Whitby Chamber of Commerce	CMD 21-H4.49
Robert Farley	CMD 21-H4.50
Canadian Nuclear Society	CMD 21-H4.51
Cameco Corporation	CMD 21-H4.62

Other:

Letter from Paul Daly	CMD 21-H4.63
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