



Protocol Between Ontario Power Generation and Canadian Nuclear Safety Commission Staff for the Darlington New Nuclear Project: Pre-Construction and Construction Licence Application Activities

May 2012



Summary of Changes

Revision No.	Date revised	Section	Description of change
0	2012-05-01	All	Revision 0 of the document.

Extent of Protocol

This protocol is strictly administrative in nature. None of the statements in this protocol are to be construed or interpreted as constituting a contract or as affecting the jurisdiction or discretionary powers of the Canadian Nuclear Safety Commission (CNSC)¹ in its assessments of licence applications made in accordance with the *Nuclear Safety and Control Act* (NSCA).

The timelines outlined in this protocol provide a transparent and reasonable outline of what may be expected from a regulatory perspective, but do not and cannot bind the CNSC staff or Ontario Power Generation – Darlington New Nuclear Project (hereto referred to as OPG) in any legally enforceable manner.

This protocol does not, in any way, affect or influence the Commission decision on OPG's application for a licence to prepare site. Activities under this protocol will only commence once OPG has received a licence to prepare site.

¹ Canadian Nuclear Safety Commission, or CNSC, refers to the total organization. The tribunal component is referred to as the Commission and the staff component as CNSC staff.

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1. INTRODUCTION

1.1. Purpose

Ontario Power Generation (OPG) is proposing a project for the site preparation, construction, operation, decommissioning and abandonment of up to four new nuclear reactors at its existing Darlington Nuclear Generating Station site located along the north shore of Lake Ontario, in the Municipality of Clarington. The project is expected to generate up to 4800 megawatts of electricity for delivery to the Ontario grid.

The Canadian Nuclear Safety Commission (CNSC) received an application from OPG for a licence to prepare site. The environmental assessment for the Darlington New Nuclear Power Plant Project has been completed.

CNSC staff are currently awaiting the Commission decision on the application for a licence to prepare site. However, recognizing the importance of project schedule and scope, and recognizing that many activities will be necessary prior to the Commission decision for the licence application, the purpose of this document is to:

- govern communications (formal and informal) between OPG and CNSC staff
- provide a framework within which OPG and CNSC staff will work to respectively prepare and perform a technical assessment of the necessary information for the CNSC staff to make a recommendation to the Commission on an application for a licence to construct
- establish:
 - a pre-application statement of activities
 - application work which includes:
 - high-level project schedules
 - the CNSC review approach
 - an issues resolution process
 - access to project information for members of the public
 - interfaces with other jurisdictions
 - CNSC inspections and project communication
 - a high-level estimate of the time to assess the application

This protocol should be followed to allow for open and transparent processes that do not fetter the discretion of the Commission.

1.2. Scope

This protocol expires upon completion of an application for a licence to construct. However, the CNSC's regulatory processes will continue as usual after the protocol expires.

Nothing set out in this protocol affects the CNSC regulatory mandate.

1.3. Document Security

The CNSC follows the *Policy on Government Security*² for information management. It is important for OPG to classify the submitted documents at the appropriate levels to ensure that the right CNSC staff have access to the information they need to perform the review.

1.4. Exchange of information

The exchange of correspondence between OPG and CNSC staff should be effectively coordinated, managed, retained and retrievable by both parties. The following principles will be applied:

- Communication between OPG and CNSC staff will be controlled using the single point of contact (SPOC) approach.
- The information exchanged will reflect the position of OPG or the CNSC – not of the persons involved.
- The person communicating the message will be responsible for the content and the quality of information incorporated into the message.
- The OPG/CNSC specialists involved may communicate with each other to request clarification on a document or to share information, but all these communications must be brought to the attention of the SPOC.

There are two types of communication: formal and informal.

1.4.1. Formal Communication

The purpose of formal communication is to document, in an acceptable and agreed-upon written or electronic format, any **official** regulatory requests or positions that the CNSC takes on OPG, and for OPG to provide an official response to such requests or positions. If done consistently, errors of omission, misunderstandings and other communication fallibilities can more easily be caught, tracked and recorded. Formal communication will be captured in action-tracking databases for ease of compliance monitoring and verification.

1.4.2. Informal Communication

It is a normal and accepted practice that OPG and CNSC staff interact on a regular and informal basis. This communication can take place face to face, by telephone, or through any other electronic or paper medium. The basis of this communication is normally to clarify technical points that may relate to administrative, licensing or compliance issues. **No regulatory positions or OPG commitments are communicated in this manner.**

1.5. Fees for Regulatory Effort

The CNSC cost recovery for this regulatory effort shall be through licence fees that will accord with the *Canadian Nuclear Safety Commission Cost Recovery Fees Regulations*.

² The *Policy on Government Security* is found at publiservice.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578§ion=text. The effective date of the policy is July 1, 2009.

2. ROLES AND RESPONSIBILITIES

The generic roles and responsibilities associated with this protocol are as follows; the specific responsibilities of SPOC are detailed in the subsection below.

OPG and CNSC staff will:

- ensure that information shared is used appropriately
- adhere to any confidentiality requirements that may be associated with the information, such as those addressing security or commercial sensitivity
- communicate in a manner that is accurate, clear, reliable and complete
- incorporate appropriate content and quality into outgoing messages
- monitor the implementation of this protocol and associated communication processes within their organizations
- collect feedback and suggestions for improving this protocol on an annual basis
- propose changes to this protocol in accordance with the CNSC Management System change control process; modifications to this protocol will be made as required

2.1. Representatives

The representatives are responsible for all matters concerning the activities under this protocol. Any proposed changes to the scope of the activities are to be discussed and authorized by means of formal correspondence.

For the purposes of this protocol, the CNSC shall be represented by:

- the Director General, Directorate of Regulatory Improvement and Major Projects Management (DRIMPM, position currently held by Barclay Howden), for general matters related to this protocol
- the Director, New Major Facilities Licensing Division (NMFLD, position currently held by David Newland), for matters related to technical scope and schedule

For the purposes of this protocol, OPG shall be represented by:

- the Director of Engineering (position currently held by Keith Howard), for general matters related to this protocol
- the Senior Manager, Licensing (position currently held by Allan Webster), for matters related to the technical scope and schedule

Either participant hereto may, by formal correspondence, change any of its representatives mentioned above.

2.2. Protocol Change Control Process

In accordance with the responsibilities in section 2.1, the representatives have the authority to initiate changes to this protocol. Changes will be agreed to by both participants by an exchange of formal correspondence.

The Director General of DRIMPM has the authority to approve changes to this protocol.

In order to effect a modification to the protocol, the CNSC Regulatory Program Officer, NMFLD will:

- initiate a request using the Document Change Request Form
- consult OPG
- update the protocol
- provide the revised protocol to OPG by formal correspondence

3. PRE-APPLICATION STATEMENT OF ACTIVITIES

It is recognized that early understanding between OPG and CNSC staff on specific items will benefit the project and help reduce schedule uncertainty. The following subsections provide an outline for pre-application activities.

3.1. Pre-application Acceptance

Submissions for long-lead items (LLI) for which OPG seeks acceptance by the CNSC staff, prior to the application for a licence to construct, will be reviewed on a case-by-case basis. Requests should be limited to issues where only further clarifications are required or which are on specific topics. For example, it is most likely that OPG will seek CNSC staff's concurrence on items such as:

- safety classifications
- codes and standards
- code-effective date
- quality assurance requirements

If no technical issues are found, CNSC staff will provide a formal confirmation to OPG that the information is "conditionally acceptable" pending the overall review of the application for a licence to construct. It is understood that such acceptances do not and cannot, in any way, bind the Commission. It is noted that procurement of LLI is entirely at the risk of OPG.

3.2. Pre-application Regulatory Meetings

It is recognized that both OPG and CNSC staff may require regulatory clarifications/discussions at the pre-application stage for the project. Either participant may initiate the clarifications/discussions provided that the following ground rules are followed:

- The intent of these meetings is to respond to questions for clarification around topics related to the application for a licence to construct. The purpose of these meetings is not to provide any acceptance on topics that could circumvent the licensing process or that could risk fettering the discretion of the Commission.
- An agenda, presentation materials and list of questions will be formally submitted by OPG at least two weeks (or more time as required if the subject is complex) in advance of a meeting.
- Only the questions provided in advance will be addressed at the meeting.
- CNSC staff will write minutes and forward them to OPG for review and agreement. Minutes will typically be turned around by each participant within a week.

The ground rules will ensure that the clarifications/discussions will be efficient and concise. Minimum attendance at these meetings will include:

- the Project Manager, New Major Facilities Licensing Division, position currently held by Ross Richardson (CNSC)
- the Manager, Policy and Regulatory Affairs, position currently held by Leslie Mitchell (OPG)

4. APPLICATION WORK

CNSC staff will review the application for a licence to construct, by using RD/GD-369, *Licence Application Guide: Licence to Construct a Nuclear Power Plant*. Further review criteria are captured in CNSC regulatory and guidance documents and in industry codes and standards.

It is anticipated that 32 months will be needed for the technical review as outlined in Appendix A. This does not include the time for the hearing process and, subsequently, the Commission licensing decision. The review period is based on the assumption that the information submitted by OPG is sufficiently detailed to allow the regulatory safety assessment and licensing process to proceed efficiently. Note that the schedule provided in Appendix A is generic in nature; the timelines will be modified and updated once the application for a licence to construct has been received.

If at any time during the review period significant changes are made to the design or safety analysis of the nuclear power plant, the review period will be extended. In this case, CNSC staff will detail the rationale behind extending the review period.

4.1. Project Schedule

OPG will provide CNSC staff with a project schedule that provides an overview of the completion of the project (level 1), as well as detailed schedules on components of the project (level 2 and level 3 schedules). CNSC staff will advise OPG of any planned regulatory activities that should be reflected in the schedule, such as regulatory inspection hold points, formal regulatory audits, or information that will be required that will enable or that are tied to the accomplishment of scheduled activities.

OPG will update the schedule monthly. In addition, OPG will notify CNSC staff of any changes in the schedule that are related to the items identified by CNSC staff upon such changes being identified.

4.2. Application Review Approach

Once OPG submits an initial application for a licence to construct, the formal review process will begin. The entire review process will take approximately 32 months (CMD preparation will take place during the last five to six months).

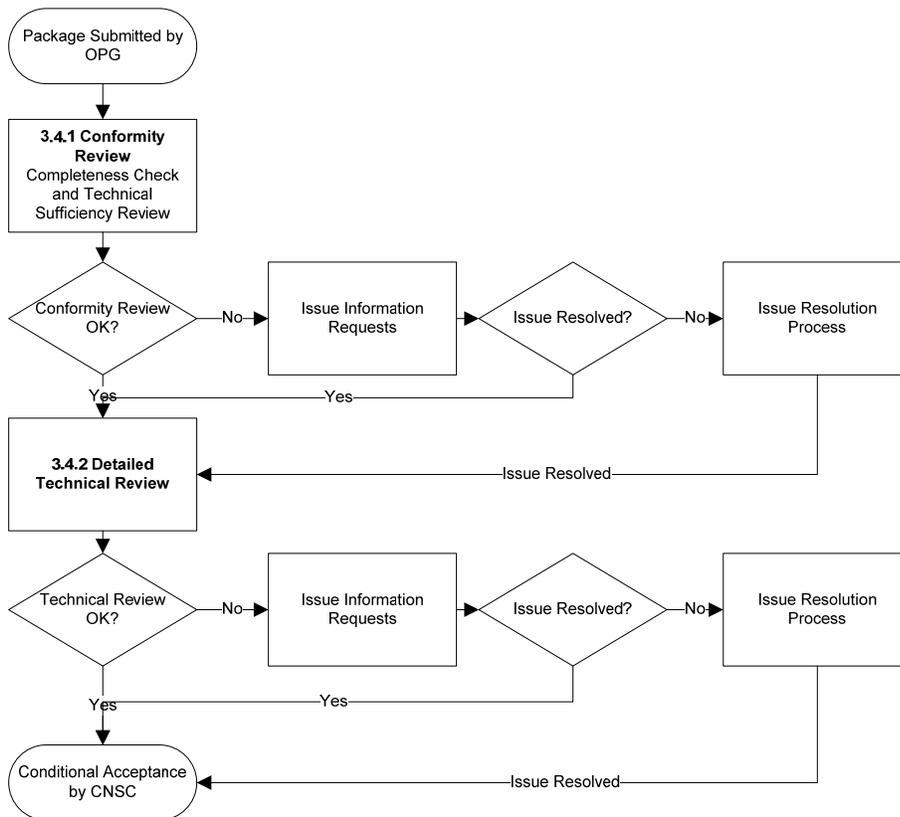
It is conceivable that OPG will not submit the entire scope of submissions as one complete package but, rather, as a logical sequence of submissions as required, so that CNSC staff can perform an appropriate and efficient review. Appendix A presents the overall CNSC assessment logic used to review an application for a licence to construct; the review is divided into six

different submission packages. OPG's project execution plan (including a schedule for submissions) should follow a similar logic.

Specific details of the review and the process will be captured in a project-specific CNSC construction assessment plan.

CNSC staff reviews will be broken into two types of reviews: conformity review and detailed technical review. The following diagram illustrates the phase review process.

Figure 1 - CNSC staff review process



4.2.1. Conformity Review

The conformity review consists of a completeness check and a technical sufficiency check to ensure that the information submitted is sufficient to begin the review for each package. This review will be performed at the beginning of the submission of each package and is anticipated to take one month.

If it has been determined that sufficient information has been provided, CNSC staff will proceed with the detailed technical review.

OPG will notify CNSC staff as early as possible if slippages occur in the schedule of submissions. CNSC staff will attempt to accommodate slippages to the extent practicable.

4.2.2. Detailed Technical Review

The detailed technical review consists of a detailed technical review on the six submission packages (see Table 1 below). For each of the packages, OPG and CNSC staff will identify the list of licensing and technical leads prior to the submissions.

Table 1 - Detailed technical review submission packages

Package	Topic	Estimated review time
1	Management Aspects	12 months
2	Design and Safety Analysis	27 months
3	Construction and Commissioning Program	15 months
4	Core Control Processes and Operations Aspects	18 months
5	Security	12 months
6	Environmental Assessment (EA) Follow-up	24 months

These review packages are aligned with RD/GD-369. It should be noted that CNSC staff cannot review the construction program without, at a minimum, reviewing the design submissions in parallel. Similarly, CNSC staff cannot review the commissioning program without reviewing the design submissions and safety analysis results in parallel, as this is what the commissioning program measures.

The schedule for phased submissions of packages is as follows:

1. The assessment of information submitted for the packages 1, 2 and 6 will start upon receipt.

Package 2 is further logically delivered in the following order:

- design programs and safety methodology
 - actual design and safety analysis results
2. For packages 3 through 5, though the information may not be ready at the time of initial application, CNSC staff expect OPG to provide the schedule for submissions, such that the timelines in Appendix A can be adhered to. As such, the submission for packages 3 and 5 should be submitted no less than six months after initial application. The submission for package 4 should be submitted no less than five months after initial application.

4.3. Results of the Technical Review

Upon completion of the detailed technical review, CNSC staff will determine one of the following:

- the information submitted is conditionally acceptable (4.3.1)
- information requests (IRs) will be generated when there is insufficient information provided (4.3.2)

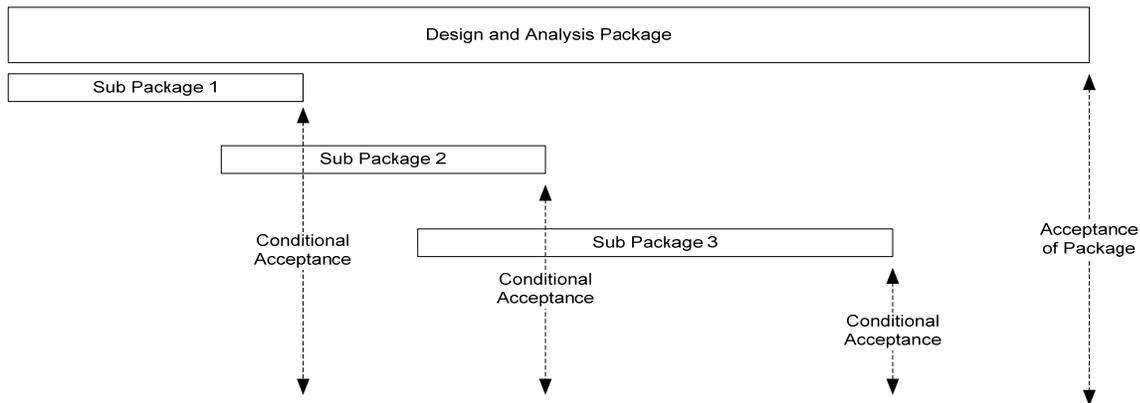
Where potential issues are identified and cannot be resolved through the IRs, OPG and CNSC staff will follow the issue resolution process (4.3.3).

4.3.1. Acceptance and Conditional Acceptance

Each package will comprise many documents. As the overall detailed review of the package proceeds, CNSC staff will confirm in writing to OPG conditional acceptance of the documents or group of documents. This acceptance is conditional upon the completion of the overall review of the package. Once the review is complete, CNSC staff will confirm, in writing, staff's overall acceptance of the package (see example below).

However, previous packages may have to be revisited if any contradicting information is presented between packages or if new information comes to light that invalidates the previously reviewed package.

Figure 2 - Example of conditional acceptance and overall acceptance of package



4.3.2. Information Requests

CNSC staff will issue information requests if it is determined that there is insufficient information available to continue the review. The IRs will be issued by the Director of the New Major Facilities Licensing Division (NMFLD) as soon as practicable.

4.3.3. Issue Resolution Process

Differences of technical opinion may arise during the review of the application for a licence to construct. An issue resolution mechanism will be used during the application review to facilitate timely resolution. This process does not, in any way, affect the CNSC staff's role in making recommendations to the Commission.

Nothing in this issue resolution process seeks to bind, or has the effect of binding, the Commission.

4.3.3.1 Issue and Resolution at the Working Level

Technical working groups may be formed for any topic upon mutual agreement of OPG and CNSC staff. The purpose of the working group is to resolve any potential major issues at the working level – it is the intention of both participants to resolve issues at this level. For the working group, OPG and CNSC staff will:

- determine the list of persons involved
- develop a plan (including timeline) for closure of issue
- track the progress of the plan

Forming the Technical Working Group

The technical working group may involve representatives of OPG, the CNSC and third party experts who may assist in the review of the topic. The CNSC and OPG will establish a list of persons (SPOC) responsible for the various topic areas prior to the start of the review process. The design authority and technical experts of Engineering, Procurement and Construction (EPC) will provide support to OPG within the technical working group.

To the extent practicable, questions/concerns to be discussed at a technical working group meeting will be provided a week in advance of the scheduled meeting(s).

Developing a plan for closure of issue

Within 14 calendar days after its formation, the technical working group will develop a plan for closure of the issue. The plan should include, as a minimum, the following information:

- terms of reference
- closure criteria
- timeline for resolving the issue

Failure to define closure criteria will be immediately referred for issue resolution. The working group's progress will be monitored by licensing staff from OPG and the CNSC.

Failure to resolve an issue

If by agreement of the working group members, or by either OPG or CNSC licensing staff, they consider an impasse has been reached and the issue cannot be resolved at this level, it will be referred to the director level for resolution. The description of the issue will be documented (typically, a brief factual summary of the issue and a paragraph representing the view of each organization) within 14 days and forwarded to the director level (4.3.3.2).

The issue may also be escalated to the director level if the timeline for the review activities, reports or inspections are not being met.

4.3.3.2 Issue and Resolution at the Director Level

For issues that cannot be resolved at the working level, the supporting documentation will be sent to:

- the Director, New Major Facilities Licensing Division, position currently held by David Newland (CNSC)

- the Senior Manager – Licensing, position currently held by Allan Webster (OPG)
- the EPC design authority

A meeting will be called, normally within 30 days, to resolve the issue, and the resolution documented.

If the issue cannot be resolved at this level, it will be referred to the senior management level (4.3.3.3) within two weeks, supported by the original documentation from the working group and director level.

4.3.3.3 Issue and Resolution at the Senior Management Level

For issues that cannot be resolved at the director level, the supporting documentation will be sent to:

- the Director General, Directorate of Regulatory Improvement and Major Projects Management, position currently held by Barclay Howden (CNSC)
- the appropriate Director General within the CNSC responsible for the specific review package
- the Director of Engineering, position currently held by Keith Howard (OPG)

A meeting will be called, normally within 30 days, to resolve the issue, and the resolution documented.

If the issue cannot be resolved at this level, it will be referred to the executive level (4.3.3.4) within two weeks, supported by the original documentation from the working, director and senior management level.

4.3.3.4 Issue and Resolution at the Executive Level

For issues that cannot be resolved at the senior management level, the supporting documentation will be sent to:

- the Executive Vice-President and Chief Regulatory Operations Officer, position currently held by Ramzi Jammal (CNSC)
- the Executive Vice-President, Darlington New Nuclear Project, position currently held by Albert Sweetnam (OPG)

A meeting will be called, normally within 30 days, to resolve the issue, and the resolution documented.

4.4. Review Time Extension

If an information request has been issued by CNSC staff to OPG, and CNSC staff have determined that:

- the information submitted is missing which would prevent review of material in the subject technical area or other areas, or
- there is a fundamental technical disagreement between CNSC staff and OPG on the information submitted, the 32-month review time may be extended. However, CNSC staff will continue reviewing material in other submission packages.

CNSC staff will formally provide OPG the duration and the reasons behind extending the review time.

5. ACCESS TO PROJECT INFORMATION FOR MEMBERS OF THE PUBLIC

5.1. Public Information Program and Disclosure

Prior to submitting the application for a licence to construct, OPG is expected to inform CNSC staff about what information could be made available to the public. OPG's application for a licence to construct should meet the requirements and expectations of RD-99.3, *Public Information and Disclosure*³.

It is expected that, at a minimum, OPG will make the following information publicly available for activities related to a licence to construct:

- a public version (i.e., one that does not contain any commercially sensitive information or security-protected information) of the preliminary safety analysis report and final safety analysis report (when it becomes available)
- any EA follow-up information (e.g., programs, plans or results)
- formal communication between OPG and CNSC staff

Any information that has been made available to the CNSC staff will be subject to the *Access to Information Act* and *Privacy Act*.

5.2. Public Consultation and Participation

RD/GD-369, subsection 1.3, "Public consultation", provides the expectations for the applicant's public consultation program. OPG should have a public consultation process in place prior to the start of the hearing process.

Note that a Participant Funding Program (PFP)⁴ has been established by the CNSC to give the public, Aboriginal groups and other stakeholders the opportunity to request funding from the CNSC to participate in its regulatory processes.

6. OTHER

6.1. CNSC Inspections

CNSC staff will be carrying out inspections (desktop or site/field inspections) of OPG, its contractors and suppliers (including their sub-tiered contractors and suppliers).

OPG will provide to CNSC staff its schedule for the audits and inspections of project contractors and suppliers. CNSC staff will accompany OPG on some of these audits and inspections to ensure that there is adequate oversight of the suppliers and their sub-suppliers.

³ Available at nuclearsafety.gc.ca/pubs_catalogue/uploads/RD_GD-99_3-eng.pdf

⁴ For further information, please refer to the CNSC website under "Participant Funding Program" or directly via: nuclearsafety.gc.ca/eng/pdfs/participant-funding-program/Participant-Funding-Program-Guide_e.PDF

CNSC staff also plan to perform inspections of the suppliers, independent of OPG. For scheduled inspections, CNSC staff will provide OPG with details of the inspections such as type of inspection, scope, CNSC staff involved and timeframe.

At the end of the inspection, CNSC staff will provide a record of the inspection including any findings/observations to the OPG representatives (position to be defined) and not to the project supplier directly.

This protocol does not alter any jurisdiction or discretionary powers as defined in the NSCA or their exercise by CNSC staff with respect to OPG.

6.2. The CNSC's role in interfacing with other Jurisdictions

OPG will identify areas to CNSC staff where coordination with various jurisdictions in the federal, provincial and municipal level may be merited. The CNSC will provide support in its role as the regulatory authority by coordinating these reviews for licence to construct and any other issues related to EA follow-up and JRP recommendations.

6.3. Project Communications

Weekly meetings (e.g., via teleconference or face to face) will be held between OPG and CNSC staff to discuss the review progress and highlight any potential major issues. Minimum attendance at these meetings will include:

- the Project Manager, New Major Facilities Licensing Division, position currently held by Ross Richardson (CNSC)
- the Manager, Policy and Regulatory Affairs, position currently held by Leslie Mitchell (OPG)

On a quarterly basis, senior level meetings will be held between OPG and CNSC staff to discuss the overall progress for the project and any issues as required.

7. FUTURE REVISIONS OF THE PROTOCOL

Revisions of this protocol will be coordinated by the organization representatives and will be approved by the organizations' governance structures.

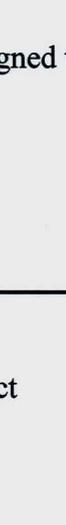
8. PROTOCOL AGREEMENT

The participants hereto have signed the protocol, in counterpart, on the dates indicated below.



Albert Sweetnam
Executive Vice-President
Darlington New Nuclear Project
Ontario Power Generation

10 May 2012
Date



Ramzi Jammal
Executive Vice-President and
Chief Regulatory Operations Officer
Canadian Nuclear Safety Commission

2012/05/16
Date

Appendix A

Review Timeframe

See generic Project Schedule for New NPP Construction Licence and CMD Prep – 32 Months,
[E-Docs#3914606](#)

Project Schedule for New NPP Construction Licence

ID	Task Name	Start	Finish	2014				2015				2016				2017			
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
0	Project Schedule for New NPP Construction Licence and CMD prep - 32 months	Wed 14-01-01	Tue 16-11-01																
1	Execute ongoing consultation with First Nation's	Thu 14-01-02	Thu 14-06-05																
8	Project Management Deliverables	Wed 14-01-01	Fri 16-08-26																
54	Initiation of CNSC Regulatory Process for New NPP Construction Licence	Wed 14-01-01	Thu 14-01-02																
58	Perform Selection for CNSC Participant Funding Program (PFP)	Wed 14-01-01	Wed 14-01-01																
61	Perform Technical Assessment	Thu 14-01-02	Fri 16-04-01																
62	Revise Generic Assessment Plan	Thu 14-01-02	Fri 16-04-01																
63	Management Aspects	Thu 14-01-02	Wed 14-12-24																
64	Perform Conformity Review	Thu 14-01-02	Wed 14-01-29																
69	1.0 Introduction - General Considerations	Thu 14-01-02	Wed 14-01-08																
71	1.3 Public Consultation	Thu 14-01-02	Wed 14-01-08																
73	1.3.1 Aboriginal Consultation	Thu 14-01-02	Wed 14-01-22																
75	3.2 Management Systems	Thu 14-01-02	Wed 14-12-24																
77	3.3 Consideration of Safety Culture	Thu 14-01-02	Wed 14-12-24																
79	9.2 Operating organization Structure	Thu 14-01-02	Wed 14-12-24																
81	9.3 Management Direction	Thu 14-01-02	Wed 14-12-24																
83	9.4 Operations management processes	Thu 14-01-02	Wed 14-12-24																
85	9.10 Control of Modifications	Thu 14-01-02	Wed 14-12-24																
87	9.11 Qualification and Training of Personnel	Thu 14-01-02	Wed 14-12-24																
89	9.14 Safety Performance	Thu 14-01-02	Fri 14-12-19																
91	9.16 Documents and Records	Thu 14-01-02	Fri 14-12-19																

Project: Project Schedule for New NPP
Date: Thu 12-04-05

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

Project Schedule for New NPP Construction Licence

ID	Task Name	Start	Finish	2014					2015					2016				2017	
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
93	Design and Safety Analysis	Thu 14-01-02	Fri 16-03-25																
94	Perform Conformity Review	Thu 14-01-02	Wed 14-01-29																
99	2. General Plant Description	Thu 14-01-02	Fri 14-04-04																
101	4.2 Site Reference Data	Thu 14-01-02	Fri 14-03-28																
103	4.3 Exclusion Zone Authority and Control	Thu 14-01-02	Fri 14-04-04																
105	4.4 Evaluation of Site Specific Hazards	Thu 14-01-02	Fri 14-03-28																
107	5.1 General Design Aspects and Support Programs - General Considerations	Thu 14-01-02	Fri 14-04-04																
109	5.2 Safety Objectives and Goals	Thu 14-01-02	Fri 16-03-25																
114	5.3 Classification of Structures, Systems and Components	Thu 14-01-02	Fri 14-04-04																
116	5.4 Pressure Boundary Design	Mon 14-03-31	Mon 15-02-09																
119	5.5 Civil Engineering Works and Structures	Mon 14-03-31	Fri 15-01-02																
122	5.6.1 Environmental Qualification	Thu 14-01-02	Fri 14-07-25																
124	5.6.2 Electromagnetic Interference	Mon 14-03-31	Fri 14-08-01																
126	5.6.3 Seismic Qualification	Mon 14-03-31	Fri 14-08-01																
128	5.6.4 External Hazards other than Earthquakes, and Internal Hazards (accidents)	Mon 14-03-31	Fri 14-08-01																
130	5.7 Fire Safety	Mon 14-03-31	Mon 15-01-19																
133	5.8 Human Factors Engineering	Thu 14-01-02	Fri 14-08-01																
135	5.9.1 Feedback from Operating Experience and Safety Research	Wed 14-04-02	Fri 14-08-22																
138	5.9.2 Safety Assessment	Thu 14-01-02	Fri 14-04-04																
140	5.9.4 In-service Monitoring, Inspection, Testing and Repairs	Thu 14-01-02	Fri 14-07-25																
142	5.9.5 Plant Ageing management	Thu 14-01-02	Fri 14-07-25																

Project: Project Schedule for New NPP
Date: Thu 12-04-05

Task  Progress
Split  Milestone

 Summary
 Project Summary

 External Tasks
 External Milestone

 Deadline




Project Schedule for New NPP Construction Licence

ID	Task Name	Start	Finish	2014					2015				2016				2017
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
144	5.9.6 Severe Accident management	Thu 14-01-02	Fri 14-07-25														
146	5.10 Nuclear Criticality Safety	Thu 14-01-02	Fri 14-07-25														
148	5.11 Security and Robustness	Mon 14-03-31	Mon 14-09-15														
150	9.7 Maintenance, Surveillance, Inspections and Testing	Thu 14-01-02	Mon 14-07-07														
153	6.4.1 Design of the Fuel System	Thu 14-07-17	Thu 15-02-12														
155	6.4.2 Design of Reactor Internals	Thu 14-07-17	Tue 15-03-24														
157	6.4.3 Nuclear Design and Core Nuclear performance	Thu 14-07-17	Fri 15-06-12														
159	6.4.4 Core Thermalhydraulic Design	Thu 14-07-17	Fri 15-06-12														
161	6.4.5 Reactor Materials	Thu 14-07-17	Tue 15-03-24														
163	6.5.2 Design of the Reactor Coolant System and Reactor Auxiliary Systems	Thu 14-07-17	Thu 15-04-02														
165	6.6 Safety Systems	Thu 14-07-17	Tue 15-03-24														
167	6.7 Instrumentation and Control	Thu 14-07-17	Fri 15-03-27														
169	6.8 Electrical Systems	Thu 14-07-17	Fri 15-03-27														
171	6.9 Plant Auxiliary Systems	Thu 14-07-17	Fri 15-03-27														
173	6.11 Fuel Handling and Storage Systems	Thu 14-07-17	Fri 15-03-27														
175	6.12 Complementary Design Features	Thu 14-07-17	Fri 15-03-27														
177	6.13 Radioactive and Hazardous Waste Treatment Systems	Thu 14-07-17	Fri 15-03-27														
179	6.14 Laboratories and Class II Nuclear Facilities	Thu 14-07-17	Fri 15-03-27														
181	6.15 Control Room Facilities	Thu 14-07-17	Fri 15-03-27														
183	7.2 Safety Objectives and Acceptance Criteria	Thu 14-01-02	Fri 14-07-11														
185	7.3 Identification, Scope and Classification of Postulated Initiating Events	Tue 14-04-22	Fri 14-08-22														

Project: Project Schedule for New NPf
Date: Thu 12-04-05

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

Project Schedule for New NPP Construction Licence

ID	Task Name	Start	Finish	2014					2015					2016				2017	
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
187	7.4 Human Factors	Thu 14-01-02	Wed 15-11-04																
190	7.5 Deterministic Safety Analysis	Thu 14-01-02	Wed 15-11-04																
193	7.6 Severe Accidents	Thu 14-01-02	Wed 15-11-04																
196	7.7 Probabilistic Analyses	Thu 14-01-02	Wed 15-11-04																
199	7.8 Hazard Analysis	Thu 14-01-02	Wed 15-11-04																
202	7.9 Summary of Results of the Safety Analyses	Wed 15-11-04	Tue 16-01-26																
204	Construction and Commissioning Program	Tue 14-09-02	Fri 15-12-04																
205	Perform Conformity Review	Tue 14-09-02	Mon 14-09-29																
210	8.3 Construction Program	Tue 14-09-02	Fri 15-12-04																
212	8.4 Commissioning Program	Tue 14-09-02	Fri 15-12-04																
214	Core Control Proceses and Operations Aspects	Wed 14-07-02	Fri 16-01-01																
256	Security	Thu 14-01-02	Wed 14-12-31																
263	EA Follow-Up	Thu 14-01-02	Thu 15-12-31																
270	Hearing	Tue 16-03-01	Tue 16-11-01																
271	Preparation of CMD including Licence and LCH	Tue 16-03-01	Fri 16-07-29																
272	Hearing Prep	Tue 16-03-01	Fri 16-07-29																
273	Hearings	Tue 16-03-01	Thu 16-09-29																
274	Issuance of Licence	Tue 16-11-01	Tue 16-11-01																

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Task Progress Summary External Tasks Deadline

Split Milestone Project Summary External Milestone