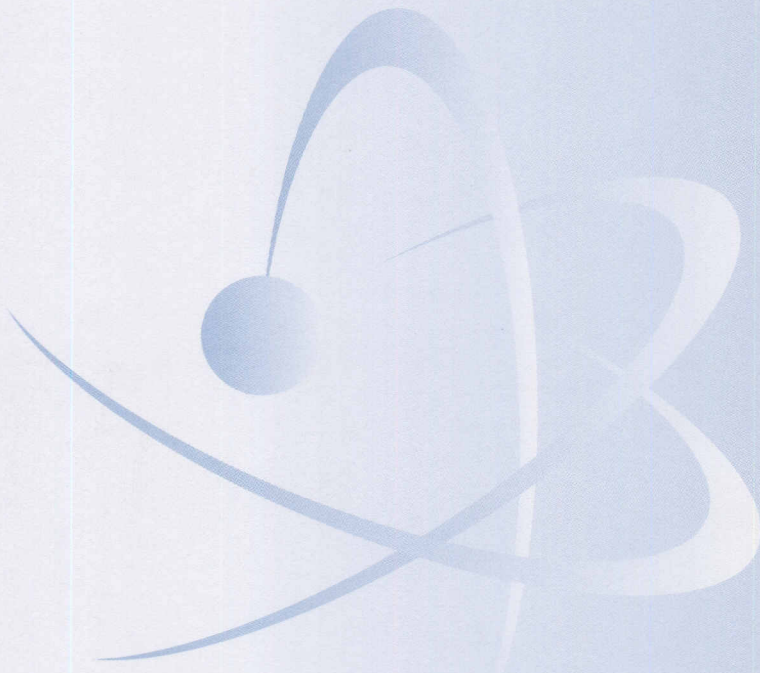




Protocol for the Nuclear Legacy Liabilities Program (NLLP) Licensing Activities at the Chalk River Laboratories (CRL)



July 2011
Revision 1

Chalk River Laboratories Compliance and Licensing Division (CRLCLD)
Directorate of Nuclear Cycle and Facilities Regulation (DNCFR)
Canadian Nuclear Safety Commission (CNSC)

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1. PREAMBLE

This Protocol is essentially of administrative nature. Nothing in this Protocol or any statement in this Protocol restricts the powers of the Commission, Designated Officers, or Inspectors when it comes to making regulatory decisions or taking regulatory action in the public interest, transparently and independent of any undue influence. Nothing in this Protocol or any statement in this Protocol is to be construed or interpreted as affecting the jurisdiction and discretion of the Commission in any assessment of any application for licensing purposes under the *Nuclear Safety and Control Act* (NSCA). It is not intended to constitute a deviation or interference to a proposed amendment to the current licence for the Chalk River Laboratories (CRL).

All parties to the Protocol understand that there will be no compromise in the protection of the health, safety and security of Canadians, as well as the environment.

2. PURPOSE OF THE PROTOCOL

The purpose of the Protocol for the Nuclear Legacy Liabilities Program (NLLP) licensing activities at CRL is to establish the administrative framework for the program in the 2011–2016 licensing period, target timelines, responsibilities and clear milestones to track progress and measure success of planned projects.

3. SCHEDULE

The Protocol and the attached Annex I establish the NLLP projects' milestones with current target timelines. It is recognized that with the size of the program in general and the large amount of work and undertakings, there may be risks that cause delays, should events unfold in a manner that is different from what has been assumed, planned and agreed. To preserve the completion of the objectives, the milestones will have to be revised and dealt with in a timely manner, following the process outlined in this Protocol.

4. CONTEXT

The NLLP is funded through Natural Resources Canada (NRCan) and was established to manage Canada's nuclear legacy liabilities at Atomic Energy of Canada Limited (AECL) sites. Nuclear legacy liabilities are the result of over 60 years of nuclear research and development conducted by the National Research Council of Canada (1944 to 1952) and AECL (1952 to present) on behalf of the Government of Canada. Approximately 70 percent of the liabilities are located at CRL. The liabilities consist of outdated and unused research facilities and buildings, a wide variety of buried and stored radioactive waste, and affected lands.

The objective of the NLLP is to safely and cost-effectively reduce the nuclear legacy liabilities and associated risk based on sound waste management and environmental principles in the best interest of Canadians.

AECL has made considerable progress and significant achievements during the first five-year start-up phase of the NLLP (April 1, 2006 to March 31, 2011), in the matter of infrastructure decommissioning, environmental restoration and improved management of legacy radioactive waste. The construction and operation of the Waste Analysis Facility (WAF), the Fuel Packaging and Storage (construction is ongoing) and the emptying of a portion of the NRX fuel bays and creation of the NRX firebreak between the NRX and B204 are major models of AECL's accomplishments at CRL to date.

For the second phase of the NLLP program, projects and activities are being planned and funded for three years (April 2011–March 2014) with the decision for future funding to take place in the next three years. Although the funding is for three years, projects and activities during the 2011–2016 licence period will be continuing, focusing on liability reduction through decommissioning, environmental restoration, management of legacy waste as well as care and maintenance activities.

AECL's plan for the NLLP for the 2011–2016 licence period is shown in Table 1 of Annex I.

5. APPROACH TO ENVIRONMENTAL ASSESSMENT AND LICENSING

An environmental assessment (EA) is typically triggered when a licence to prepare, construct, operate, decommission or abandon a site must be amended, approved or issued or a Canadian Nuclear Safety Commission (CNSC) approval is required. The CNSC has EA obligations and responsibilities under the *Canadian Environmental Assessment Act* (CEAA) to identify and minimize the possible environmental effects of a proposed project. These obligations and responsibilities must be enacted before the project is allowed to proceed.

Legacy waste management improvement, decommissioning and environmental remediation and restoration projects are subject to the appropriate level of approval, including a determination of the need for an environmental assessment under the CEAA. CNSC staff carry out an environmental assessment determination under CEAA only when a licence decision or an approval is required.

When no approval or licensing decision is required, the responsible authority and other involved authorities or the proponent will carry out the EA under CEAA and the CNSC may provide support and expertise.

6. STATEMENT REGARDING THE ENVIRONMENTAL ASSESSMENT

Given that the Nuclear Research and Test Establishment Operating Licence governs all CRL facilities and laboratories activities including NRU, and that there is already considerable information about the site, it is proposed that, during the 2011–2016 CRL licence period, as many planned NLLP projects as possible be bundled under one project/EA, for the purposes of fulfilling the requirements of the *Canadian Environmental Assessment Act*.

7. STATEMENT OF WORK

Projects and activities of the NLLP that will require specific regulatory approvals to proceed during the licensing period (2011–2016) are detailed in Annex I.

AECL will provide all necessary documentation to obtain those regulatory approvals.

CNSC will provide all necessary regulatory input to AECL for the implementation of the NLLP projects to avoid delays. Section 11 outlines the process to be used to ensure both parties provide the necessary information in a timely manner to achieve the regulatory approvals per the planned schedules.

8. ROLES AND RESPONSIBILITIES

The parties to the Protocol have the following roles and responsibilities with respect to the licensing and progress tracking of the licensed NLLP projects and activities:

- Canadian Nuclear Safety Commission (CNSC) has regulatory and statutory responsibilities under the *Nuclear Safety and Control Act* (NSCA) and its regulations and is responsible for assessing the licence applications and amending of the licence to allow the projects to proceed.
- Atomic Energy of Canada Limited (AECL) is a crown corporation, owned by the Government of Canada and is the licensee for all activities conducted on the Chalk River Site. AECL is also responsible for implementing the work and ensuring all regulatory requirements are fully met.

Champions and representatives of this Protocol representing each party are as follows:

Christian Carrier

Director
Chalk River Laboratories Compliance and Licensing Division (CRLCLD)
Directorate of Nuclear Cycle and Facilities Regulation (DNCFR)
Canadian Nuclear Safety Commission (CNSC)
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J. R. Walker

Director, Safety Engineering & Licensing
Chalk River Laboratories (CRL)
Atomic Energy of Canada Limited (AECL)
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E-mail: walkerjr@aecl.ca

Each party will identify alternates in the event that the primary champion is unavailable. Change of any appointees mentioned above should be communicated by written notice.

9. EXECUTIVE MANAGEMENT COMMITTEE

The parties to the Protocol agree to form an Executive Management Committee comprised of Senior Management Representatives from the two parties to the Protocol. The Executive Management Committee reviews and approves the workplans and the semi-annual reports and will also serve to resolve issues. Where an issue cannot be resolved through the Champions, the Executive Management Committee agrees to meet within five working days of notification of the dispute with the intention of expeditiously resolving the concern.

The members of the Executive Management Committee are set out as follows:

Peter Elder

Director General
Directorate of Nuclear Cycle and Facilities Regulation (DNCFR)
Canadian Nuclear Safety Commission (CNSC)
Telephone: (613) 943-8948
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Joan Miller

Vice-President and General Manager
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Each party will identify alternates in the event that the primary committee member is unavailable.

10. EFFECTIVE LIFE OF THE PROTOCOL

This Protocol will come into effect upon the date of signing by the two parties to the Protocol. This Protocol is valid until October 31, 2016 at which time the Protocol may be renewed if deemed necessary.

11. TIMELINES

The dates and planned target timelines are detailed in Annex I. The parties agree to meet, as necessary and as needed, to clarify intentions and facilitate common understandings, with the aim of achieving the target projects completion dates.

AECL shall prepare a workplan at a suitable time prior to the start of each fiscal year¹. This workplan shall identify the specific documents, and the submission date of each document needed to satisfy the key licensing milestones for the upcoming fiscal year (Annex I).

The Champions shall agree to timelines required for the review of each document identified above within two weeks of the submission of the workplan to the CNSC. The review timelines shall take into consideration CNSC regulatory documents and guidelines and AECL internal processes and procedures. These timelines shall include, inter alia:

- a. Number of working days for CNSC staff to complete conformity review of submitted document and to respond to AECL.
- b. Number of working days for CNSC staff to complete review of document and provide the results of the review to AECL.
- c. Number of working days for AECL to respond to CNSC staff's comments (response or submission of revised document).
- d. Number of working days for CNSC staff to review AECL's response or resubmission and issue response to AECL.

The Champions shall consolidate the details and complete the workplan for the associated fiscal year.

The Executive Management Committee shall review and approve the final workplan². The final workplan shall become part of the Protocol as Annex II and may be revised/updated when needed and as projects evolve.

12. REPORTING

AECL will produce a report on a semi-annual basis demonstrating progress, status of projects' activities and items of concern/risk to completion. The report shall also specifically identify any revisions to Annex I and/or Annex II that have been approved by the Champions. The reports shall be submitted to the Executive Management Committee within the first week of December and first week of June of each subsequent year with the first report to be submitted in December 2011.

¹ The initial detailed workplan shall include details for submission and review of the Environmental Assessment documentation.

² In the case of the initial detailed workplan, the review and approval shall take place as soon as possible so that the timelines in Annex I are not compromised.

13. INTERNAL AND EXTERNAL COMMUNICATIONS

Throughout the duration of this Protocol, the two parties agree that the communications will be open and transparent and that information destined for public release will be coordinated through the designated champions (or alternates, where designated) with support from each party's communications division. Further, these communications will be done in coordination with, and in consideration of each party's communications' practices.

The Champions shall convene progress review meetings on a semi-annual basis. The agenda for these meetings shall include:

- progress on Annex I activities
- progress on NLLP activities not included in Annex I (other new build, decommissioning, and environmental restoration activities)
- metrics related to the execution of this Protocol
- identification of issues requiring the attention of the Executive Management Committee

14. CONFLICT RESOLUTION PROCESS

The parties to this Protocol will use their best efforts to resolve any differences of opinion in the interpretation or application of this Protocol in an effective and timely manner at the staff level.

Issues that cannot be addressed at the staff level will be resolved through direct discussions and collaboration between the Champions. Those that cannot be resolved will be jointly referred to the Executive Management Committee.

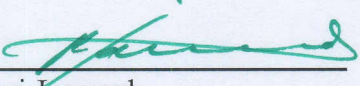
In the event that issues remain outstanding after discussion by the Executive Management Committee, they will be referred to the signatories of this Protocol.

15. REVISIONS OF THE PROTOCOL

Revisions of this Protocol that are limited to adjustments to Annex I and/or Annex II shall be coordinated and approved by the Champions, and included in the semi-annual report to the Executive Management Committee. Significant material revisions of this Protocol (excluding revisions to Annex I and/or Annex II) shall be coordinated by the Champions and approved by the parties who have signed the Protocol.

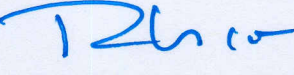
16. PROTOCOL AGREEMENT

The parties hereto have signed the Protocol, in counterpart, on the dates indicated below.



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

2011/07/19
Date



Randy M. Lesco
Acting Vice-President and General Manager,
Operations and Chief Nuclear Officer
Atomic Energy of Canada Limited

July 19, 2011.
Date

ANNEX I

Table 1: NLLP Key Licensing Milestones 2011–2016

Facility/Item	Requested Licensing Approval	Application Date (Fiscal Year)	Planned Work Completion Date (Fiscal Year)
Fuel Packaging and Storage (FPS) Facility	Operation	2011/2012	2012/2013 ³
Very Low Level Waste Facility	Construction	2013/2014	2015/2016 (50% complete)
Mobile Cementation Skid	Facility Modification/Construction/Operation	2013/2014 ⁴	Post 2015/2016
Pool Test Reactor	Decommissioning/Approved End-State Report	2010/2011	2011/2012
Heavy Water Upgrading Plant (B212)	Decommissioning/Approved End-State Report	2010/2011	2014/2015
NRX Ancillary Buildings	Decommissioning	2011/2012	B157 NRX Stack Duct 2014/2015, Remaining facilities 2031
Plutonium Tower (B223)	Decommissioning	2011/2012	Annexes 2015/2016, Tower 2028
Waste Water Evaporator (B228)	Decommissioning	2012/2013	2016/2017
NRX Fuel Storage Bays (B204)	Decommissioning	2013/2014	TBD, likely 2030+
Building 240, including Tanks 1 and 2	Establishment of Storage with Surveillance State	2015/2016	2015/2016

³ First fuel transferred to FPS. Remaining transfers over five field seasons (100 in total).

⁴ Assumes AECL will require licensing approval from the CNSC.

Facility/Item	Requested Licensing Approval	Application Date (Fiscal Year)	Planned Work Completion Date (Fiscal Year)
	CNSC Transport Division Approval		
F-257 Package (SLOWPOKE)	Certification (for reassembled core)	2011/2012	Prescribed Information
NRX/NRU HEU Shipping Package ⁵	Certification	2012/2013	Prescribed Information
Transportation Package for FISST Contents ⁵	Certification	2013/2014 (if determined feasible)	Prescribed Information
Transportation Package for HEU Booster Rods ⁵	Certification	2014/2015	Prescribed Information

⁵ NAC will be submitting the application for certification to the CNSC subsequent to receiving certification in the US.

ANNEX II
WORKPLAN