

Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant Atomic Energy of Canada Limited

Subject Financial Guarantee for Decommissioning
AECL's Whiteshell Laboratories Site

Date October 25, 2004

RECORD OF PROCEEDINGS

Licensee: Atomic Energy of Canada Limited

Address/Location: 2251 Speakman Drive, Mississauga, Ontario, L5K 1B2

Purpose: Financial guarantee for decommissioning AECL's Whiteshell Laboratories Site

Proposal received: December 16, 2003

Date(s) of hearing: September 16, 2004

Location: Canadian Nuclear Safety Commission (CNSC) Public Hearing Room, 280 Slater St., 14th. Floor, Ottawa, Ontario

Members present: L.J. Keen, Chair A.R. Graham
 C.R. Barnes M. J. McDill
 J.A. Dosman M. Taylor

General Counsel: J. Lavoie
 Secretary: M.A. Leblanc
 Recording Secretary: C.N. Taylor

Applicant Represented By	Document Number
<ul style="list-style-type: none"> • P. Fehrenbach, Vice-President, Nuclear Laboratory Business Unit • W. Kupferschmidt, General Manager of Decommissioning and Waste Management and the Site Licence Holder for the Whiteshell site • J. P. Letourneau, Process Manager, Licensing Single Point of Contact • W. TerMarsch, Finance Director of Nuclear Laboratories • B. Lange, Manager of Decommissioning and Waste Management • G. Koroll, Manager of the Whiteshell Laboratories Decommissioning Project • R. Lambert, Process Manager, Safety, Environmental and Radiological Protection • R. McCamis, Whiteshell Laboratories Nuclear Facility Authority. 	CMD 04-H22.1 CMD 04-H22.1A
CNSC Staff	Document Number
<ul style="list-style-type: none"> • B. Howden • B. Lojk • G. Lamarre 	CMD 04-H22
Intervenors	Document Number
See Appendix A	

Date of Decision: September 16, 2004

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1. Introduction

Following a public hearing held on September 12, 2002 and November 14, 2002, the Canadian Nuclear Safety Commission (the Commission¹) issued to Atomic Energy of Canada Limited (AECL) a licence to decommission AECL's Whiteshell Laboratories. The licence was limited to the first of a proposed three-phase decommissioning plan.

Whiteshell Laboratories is a former nuclear research and test establishment located on the east bank of the Winnipeg River about 100 kilometers northeast of Winnipeg, Manitoba.

In rendering its decision in late 2002², the Commission was not satisfied that AECL had an acceptable financial guarantee in place for the decommissioning of the facility. The Commission therefore added the following condition (11.1) to the decommissioning licence:

“The licensee shall provide, no later than December 31, 2003, a financial guarantee in a form and of a value acceptable to the Commission or a person authorized by the Commission.”³

In response to this licence condition, AECL submitted a letter dated December 11, 2003 from the then Minister of Natural Resources Canada (the Honourable Herb Dhaliwal) to the President of the Commission stating that, as an agent of Her Majesty in Right of Canada, AECL's liabilities are ultimately liabilities of Her Majesty in Right of Canada.

CNSC Regulatory Guide G-206 (*Financial Guarantees for the Decommissioning of Licensed Activities*) provides guidance for financial guarantees, including with respect to principles of liquidity, certainty and adequacy of value, and continuity.

A decommissioning financial guarantee is part of what the CNSC requires with respect to preparing for the decommissioning of nuclear facilities. The *Nuclear Safety and Control Act* and associated Regulations also require that nuclear facility licensees establish decommissioning plans. As described in CNSC Regulatory Guide G-219 (*Decommissioning Planning for Licensed Activities*), those plans should include credible estimates of the costs associated with the decommissioning and corresponding measures to ensure that the costs of decommissioning will be met.

¹ In this *Record of Proceedings*, 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.

² Canadian Nuclear Safety Commission, December 19, 2002, *Record of Proceedings, Including Reasons for Decision, in the Matter of Atomic Energy of Canada Limited, Application for a Licence to Decommission Whiteshell Laboratories*, including Errata dated January 23, 2003.

³ licence condition 11.1 in licence NRTEDL-02.00/2008.

Issues:

In considering the matter, the Commission was required to decide:

- a) if the federal government's liability for AECL's activities, as confirmed in the December 11, 2003 letter from the former Minister of Natural Resources Canada to the President of the Commission, constitutes an acceptable financial guarantee for the decommissioning of the Whiteshell Laboratories; and
- b) if AECL has met all of the requirements of condition 11.1 of its decommissioning licence.

Public Hearing:

The Commission, in making its decisions, considered information presented for a public hearing held on September 16, 2004 in Ottawa, Ontario. The public hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*. During the public hearing, the Commission received written submissions and heard oral presentations from AECL (CMD 04-H22.1 and CMD 04-H22.1A) and CNSC staff (CMD 04-H22). The Commission also considered oral and written submissions from two intervenors (Manitoba Conservation (CMD 04-H22.2 and CMD 04-H22.2A) and the Local Government District of Pinawa (CMD 04-H22.3 and CMD 04-H22.3A).

2. Decision

Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*, the Commission concludes that:

- a) federal government's liability for the decommissioning of Whiteshell Laboratories is an acceptable financial guarantee; and
- b) AECL has fulfilled the requirements of licence conditions 11.1 of licence NRTEDL-02.00/2008.

In making its decision, the Commission notes that, in the event that AECL's status as an agent of the Crown changes, the matter of the financial guarantee for the Whiteshell Laboratories decommissioning project would be reconsidered by the Commission.

With respect to the decommissioning plans which must accompany an acceptable financial guarantee, the Commission had previously considered and accepted AECL's plans and cost estimates for Phase 1 of the project at the time it issued the current decommissioning licence to AECL in January 2003. The Commission clarified that it would not reconsider that decision at this hearing. Furthermore, with respect to the decommissioning plans and cost estimates for the

subsequent phases of the project, the Commission will consider this at the time AECL's application for renewal of the decommissioning licence comes before the Commission for decision in 2008. In this regard, and as summarized in this *Record of Proceedings*, the Commission heard a number of concerns from intervenors about AECL's preliminary decommissioning plans and cost analysis for the future phases of the project. The Commission encourages AECL to take note of those issues and to continue to consult with stakeholders in its ongoing review and revision of its decommissioning plans through the balance of Phase 1.

3. Adequacy of the Hearing Process

The Commission considered the concerns expressed by the intervenors (Manitoba Conservation and the LGD of Pinawa) about the adequacy of the hearing process. Those intervenors are of the view that the people of Manitoba that are most affected by the project cannot access and participate effectively in the proceedings because the hearing is being held in Ottawa. The intervenors do not consider that the Commission has given sufficient consideration to their requests that this hearing be held in Manitoba.

In response to this concern, the Commission noted that, while it occasionally holds hearings in the communities where the facilities are located, the logistical and cost constraints dictate that most of the Commission proceedings take place at its headquarters in Ottawa. The Commission noted that it facilitates public access to its proceedings by making provisions for written submissions and for participation via teleconferencing and videoconferencing. The Commission is satisfied that the hearing was properly conducted in accordance with the *CNSC Rules of Procedure* and that the public and other stakeholders had adequate opportunity to express their views on the proposal to the Commission. The Commission noted that it will continue to look for opportunities to hold hearings in Manitoba as logistics and costs permit.

4. Issues and Commission Findings

4.1 Adequacy of the Proposed Financial Guarantee

AECL has proposed that its financial guarantee for the decommissioning of Whiteshell Laboratories be based on the ultimate liability of the federal government for AECL's activities as confirmed in a letter dated December 11, 2004 from the former Minister of Natural Resources Canada (NRCan) to the President of the CNSC. In the above-noted letter, the Minister states that:

"AECL is a Schedule III, Part I Crown Corporation under the Financial Administration Act and is an agent of Her Majesty in Right of Canada. As an agent of Her Majesty in Right of Canada, AECL's liabilities are ultimately liabilities of Her Majesty in Right of Canada."

CNSC staff expressed its concurrence with the Minister's statement. Furthermore, with reference to section 5.2 of CNSC Regulatory Guide G-206 "*Financial Guarantees for the Decommissioning of Licensed Activities*" (which lists examples of acceptable forms of financial

guarantees), CNSC staff concluded that AECL's proposal, being an expressed commitment from a government, is an acceptable financial guarantee. CNSC staff therefore recommended that the Commission accept the financial guarantee proposed by AECL.

Manitoba Conservation and the Local Government District (LGD) of Pinawa, in their interventions, recommended that the Commission not accept the proposed financial guarantee. While these intervenors did not contest that the AECL's liabilities are ultimately liabilities of Her Majesty in Right of Canada, they argued that this fact alone does not adequately fulfil the requirement for a decommissioning financial guarantee. These intervenors are of the view that, given the length of the decommissioning time frame contemplated by AECL (in the order of 60 years followed by 200 years of institutional control) and the likely changing political priorities and commitments of successive governments during that period, an economic model and long-term funding arrangement must also be in place to ensure that the financial burden for the project would not be placed on future generations. The LGD of Pinawa further argued that unless the decommissioning is to be completed in a continuous manner over a relatively short period of time, a specific fund is needed to prevent that transfer of burden. These intervenors point out that the burdening of future generations with the decommissioning cost would be contrary to CNSC regulations, policy and guides, AECL's own mission statement, the recommendations of the *Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management*⁴, and the findings and recommendations of the Auditor General of Canada⁵.

Furthermore, with reference to the statements made by the Commission in its *Record of Proceedings, Including Reasons for Decision* dated December 19, 2002 (and errata dated January 23, 2003), the intervenors expressed the view that AECL has not met the expectations of the Commission with respect to providing a thorough and rigorous estimation of the project cost.

Also with reference to the Commission's earlier licensing decision and subsequent errata, the intervenors expressed concern that, in their view, the Commission may have subsequently softened its policy with respect to whether the financial guarantee should include a fund in this case. The initially published decision stated that the Commission was in agreement with the proposed conceptual structure of a guarantee that would consist of a growing fund together with a government commitment. This was later corrected to state that the Commission agreed that the guarantee could consist of a fund and/or a government commitment.

On this latter point concerning the errata to Commission's earlier decision, the Commission notes that the change did not represent a change in Commission policy; rather, the errata corrects a factual error in what was reported to have been stated by CNSC staff during the hearing. The Commission considers that a financial guarantee consisting of a government commitment and/or other financial instrument would be consistent with previously stated CNSC policy and guidance.

In response to the above interventions, and to related questioning by the Commission during the hearing, AECL stated that the proposed financial guarantee is, in its view, fully supported by its decommissioning and corporate planning processes. AECL stated that those processes define the framework that is used, and which will continue to be used, to allocate funds for the

⁴ Canadian National Report – May 2003

⁵ 1995 Report of the Auditor General of Canada

decommissioning work over the planned duration of the project. In this regard, AECL referred specifically to its Five-Year Corporate Planning Forecast that is submitted to Treasury Board for approval. That forecast currently forms the basis of AECL's funding appropriations, including for the Whiteshell Laboratories and several other decommissioning projects. AECL furthermore confirmed that annual federal funding of approximately \$8 million to a total of approximately \$50 million has been allocated to the Phase 1 of the Whiteshell Laboratories decommissioning project and that a number of the decommissioning activities are underway or have been completed. With respect to the future phases of the decommissioning project, AECL stated that its Detailed Decommissioning Plan document for Phase 1 also included descriptions of AECL's preliminary plans for the subsequent decommissioning phases. That document was accepted by CNSC staff and the overall plan was the subject of a Comprehensive Study environmental assessment accepted by the federal Minister of the Environment. AECL further noted that it will be preparing additional phase-specific Detailed Decommissioning Plans which will be based to a significant degree on the detailed technical information gathered during Phase 1. As part of that planning process, AECL noted that it is exploring ways in which the duration of the overall decommissioning project could be shortened. Furthermore, in terms of its currently estimated total liability, AECL noted that it has identified an amount in excess of \$2 billion in its books and that this information is available to the Department of Finance and the public.

In considering the above submissions, the Commission accepts that it would not be appropriate to consider a proposed financial guarantee instrument without also taking into consideration the related project planning and costing that are needed to fulfil or discharge the financial guarantee in an appropriate timely and practical manner. With respect to the decommissioning planning and costing processes in this case (as further discussed in section 4.2 below), the Commission previously accepted the planning and funding arrangements in place for Phase 1 of the project and continues to expect that AECL will provide a more substantial forecasting of the subsequent decommissioning phase activities and costs in support of its application for renewal of the licence near the end of Phase 1 in 2008.

The question before the Commission, therefore, is whether the Commission may, in this case, consider and make a decision on the acceptability of the proposed financial guarantee before the Commission is fully satisfied with the related cost estimates for all decommissioning phases.

In considering this question, the Commission notes that, in cases where the financial guarantee is an instrument with an inherent value, such as a trust fund or bank letter of credit, the financial guarantee is inextricably linked and accessory to the cost estimates derived from the decommissioning plan and, therefore, the acceptability of that type of financial guarantee must be evaluated in relation to an acceptable decommissioning plan and costing. However, the Commission notes that in cases where the proposed financial guarantee is unlimited with respect to value and time frame, such as that proposed by AECL, the Commission may consider the validity and acceptability of the financial guarantee separately and prior to the completion of the required planning and costing exercise.

With respect to the recommendation by the LGD of Pinawa that the Commission require that the government establish a segregated fund for decommissioning, the Commission notes that, while it can require that AECL use a structured planning process to derive reasonable estimates of the

cost of decommissioning, the Commission would be outside its statutory powers to direct the federal government, who has confirmed its liabilities for AECL's activities without limit, to make specific appropriations or arrangements in regard to the disposition of those liabilities. This is a matter that is within the discretion of the Government of Canada.

Based on the above information and considerations, the Commission decided to proceed with its consideration of the acceptability of the proposed financial guarantee at this time, while acknowledging the ongoing work on the decommissioning plans for subsequent project phases. The Commission concludes that AECL's proposed financial guarantee, being consistent with CNSC policy and guidance in this regard, is acceptable and fulfils part of the CNSC's requirements with respect to the decommissioning of Whiteshell Laboratories.

Furthermore, because AECL provided the information on the financial guarantee prior to the date specified in condition 11.1 of its decommissioning licence, the Commission concludes that AECL has fulfilled the requirements of that licence condition.

4.2 Status of the Decommissioning Plans

As discussed above in sections 1 and 4.1, the Commission requires that licensees prepare acceptable decommissioning plans, including reasonable cost estimates, to demonstrate that they will make adequate provision to protect the environment, persons, national security and Canada's international obligations during the decommissioning of its facility(ies). The Commission is of the view that the unlimited financial guarantee afforded by the government in this case, while acceptable in its own right, can only be discharged with a corresponding plan that will enable the licensee or guarantor to continue to provide the necessary resources in accordance with a defined and logical sequence of work that ensures the protection of the environment, persons, national security and Canada's international obligations.

With respect to these decommissioning planning requirements, AECL stated that the Detailed Decommissioning Plan for Phase 1 also describes the remaining decommissioning phases in accordance with CNSC Regulatory Guide G-219 and that this was accepted by the CNSC staff. In response to this statement of AECL, the Commission notes that, at the time it issued the current decommissioning licence for the Whiteshell Laboratories project in January 2003, it approved only the planned decommissioning activities that pertain directly to Phase 1. In the Commission's view, a number of uncertainties remained with respect to AECL's long-term decommissioning strategy, and the Commission was not satisfied that the costs of the subsequent phases of the project had yet been estimated in a thorough and rigorous manner.

Position of the Intervenors:

The LGD of Pinawa and Manitoba Conservation, in their interventions, reiterated their concerns about what AECL has proposed for the future decommissioning phases and, in particular, the 60 and 200 year time frames contemplated. Both intervenors are of the view that the project should be completed in a shorter time frame. Manitoba Conservation described the AECL plan as long-

term waste storage as opposed to decommissioning. Manitoba Conservation considers that decommissioning should involve the timely treatment, removal and disposal of all wastes.

The LGD of Pinawa is of the view that a plan which would accomplish the decommissioning in a timely and continuous process (e.g., within the next 20 to 25 years) would be technically feasible, safe, consistent with modern international approaches to nuclear facility decommissioning, of greater economic benefit to the local community, and less financially burdensome on future generations. The LGD of Pinawa argued that AECL's planning assumptions about the need to delay the dismantling of certain components for several decades for safety reasons (i.e., to allow for the natural decay of much of the radiation) is flawed. In support of this view, the LGD of Pinawa stated that the technologies and tools that would be used in the decommissioning of the radioactive components would be the same as those currently used in the refurbishment and maintenance of power reactors.

The LGD of Pinawa also argues in its intervention that AECL should not be permitted to significantly defer decommissioning on the basis of a current lack of permanent disposal facilities for low-level radioactive waste. The LGD of Pinawa is of the view that industry must move to create a low-level decommissioning waste facility so that this project can move forward in a timely manner and that this should be a requirement of the CNSC.

In response to the intervenors concerns about the planned 60-year duration of the decommissioning program, AECL stated that it is currently examining possible means of reducing that period. Manitoba Conservation and the LGD of Pinawa acknowledged and expressed their support for AECL's effort in this regard.

Views of the Commission:

With respect to the above comments of the intervenors on the long-term decommissioning plan, the Commission is of the view that AECL should continue to consider and balance all of the relevant factors that could affect the cost, timing, scheduling, and development of supporting infrastructure for the project in a systematic review of its decommissioning plan in preparation for Phase 2 licensing. The Commission considers that the intervenors have raised a number of important issues and encourages AECL to continue to consult with the public and other stakeholders in its ongoing planning review.

Based on the above information and considerations, the Commission considers that uncertainties remain with respect to AECL's long-term decommissioning plans and cost estimates for Whiteshell Laboratories.

The Commission is of the view that the balance of the current license period for Phase 1 decommissioning (due to expire on December 31, 2008) should provide adequate time for AECL to update the decommissioning plan and cost estimates for the subsequent phases of the Whiteshell Laboratories decommissioning project. The Commission notes that a significant objective of Phase 1 is to assemble the information that will help confirm material inventories and site characteristics, hence reducing uncertainty and providing valuable support to a forward-looking planning and costing exercise. In its earlier licensing decision for this project, the

Commission had acknowledged that the process of revising the decommissioning plans and costs would continue through Phase 1.

The Commission also requested that the status of the planning be included as a topic in the CNSC staff's interim performance reports to be provided to the Commission every two years. The Commission will also consider this matter, among other things, in detail at the next public hearing for the renewal of the licence in 2008. The Commission is intent on seeing this planning work on the subsequent phases completed so that the approved financial guarantee will be appropriately set within an acceptable planning context as the project continues.

5. Conclusion

The Commission has considered the information and submissions of AECL, CNSC staff and the intervenors as presented for reference on the record for the hearing.

The Commission concludes that the financial guarantee is acceptable and that, by submitting an acceptable financial guarantee to the CNSC prior to December 31, 2003, AECL has fulfilled the requirements of condition 11.1 of licence NRTEDL-02.00/2008.

The Commission notes that the matter of the related decommissioning planning and cost estimates for the subsequent phases of the decommissioning project will, among other things, be considered by the Commission at the time the decommissioning licence for the project comes again before the Commission in 2008. In this regard, the Commission encourages AECL to take note of the related issues raised during this hearing and, as part of its Public Information Program, actively engage the public and interested stakeholders on these issues, as appropriate, through the remainder of Phase 1.

Marc A. Leblanc
Secretary,
Canadian Nuclear Safety Commission

Date of decision: September 16, 2004

Date of release of Reasons for Decision: October 25, 2004

Appendix A – Intervenors

Intervenors	Document Number
Manitoba Conservation, represented by L. Strachan	CMD 04-H22.2 CMD 04-H22.2A
Local Government District of Pinawa, represented by B. Skinner	CMD 04-H22.3 CMD 04-H22.3A