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CMD: 18-H102

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Issue Required Approval(s) for

Délivrer l'approbation requise pour

**AREVA Resources
Canada Inc.**

**AREVA Resources
Canada Inc.**

Cluff Lake Project

**Établissement de Cluff
Lake**

**Amended Financial
Guarantee and Company
Name Change**

**Modification de la
garantie financière et du
permis de déclassement**

Hearing in writing based on
written submissions

Audition fondée sur des mémoires

Scheduled for:

May 2018

Prévue pour :

Mai 2018

Submitted by:

CNSC Staff

Soumise par :

Le personnel de la CCSN

Summary

This Commission Member Document (CMD) pertains to a request by AREVA Resources Canada to:

- Accept the reduction of the Cluff Lake Project financial guarantee
- Amend the Cluff Lake Project Decommissioning Licence with the company's new name Orano Canada Inc.

The following actions are requested of the Commission:

- Accept CNSC staff's recommendation to revise the financial guarantee for AREVA's Cluff Lake Project
- Accept CNSC staff's recommendation to amend the Cluff Lake Project Decommissioning Licence with the company's new name

The following items are attached:

- Current licence UMDL-MINEMILL-CLUFF.00/2019
- Proposed licence UMDL-MINEMILL-CLUFF.01/2019

Résumé

Le présent document de la Commission (CMD) concerne une demande d'AREVA Resources Canada visant à:

- Accepter la réduction de la garantie financière du projet Cluff Lake
- Modifier le permis de déclassement du projet Cluff Lake avec le nouveau nom de l'entreprise, Orano Canada Inc.

La Commission pourrait considérer prendre les mesures suivantes :

- Accepter la recommandation du personnel de la CCSN de réviser la garantie financière pour le projet Cluff Lake d'AREVA
- Accepter la recommandation du personnel de la CCSN de modifier le permis de déclassement du projet Cluff Lake avec le nouveau nom de l'entreprise

Les pièces suivantes sont jointes :

- Permis actuel UMDL-MINEMILL-CLUFF.00/2019
- Permis proposé UMDL-MINEMILL-CLUFF.01/2019

Signed/Signé le

April 25, 2018



Haidy Tadros

Director General

Directorate of Nuclear Cycle and Facilities Regulation

Directrice générale de la

Direction de la réglementation du cycle et des installations nucléaires

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
PART ONE	3
1 OVERVIEW.....	3
1.1 <i>Background</i>	3
1.2 <i>Highlights</i>	4
2 MATTERS FOR CONSIDERATION	5
2.1 <i>Detailed Decommissioning Plan</i>	5
2.2 <i>Financial Guarantee</i>	5
2.3 <i>Company Name Change</i>	6
2.4 <i>Proposed Licence Changes</i>	6
3 OVERALL CONCLUSIONS AND RECOMMENDATIONS.....	7
3.1 <i>Overall Conclusions</i>	7
3.2 <i>Overall Recommendations</i>	8
REFERENCES	9
ACRONYMS	10
APPENDIX A: CLUFF LAKE PROJECT GENERAL SITE LAYOUT MAP	11
APPENDIX B: BASIS FOR THE RECOMMENDATION(S)	13
PART TWO.....	15
PROPOSED LICENCE.....	17
CURRENT LICENCE.....	19

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EXECUTIVE SUMMARY

The following two applications were submitted to the Canadian Nuclear Safety Commission (CNSC) requesting amendments to the Cluff Lake Project uranium mine decommissioning licence UMDL-MINEMILL-CLUFF.00/2019:

- an amendment of AREVA Resources Canada Inc. (AREVA) licence to reflect the company's new name Orano Canada Inc. (Orano)
- a revision to the Cluff Lake Project financial guarantee amount from C\$33.6 million to C\$26.8 million

On February 15, 2018 AREVA requested an amendment to the Cluff Lake Project licence UMDL-MINEMILL-CLUFF.00/2019 pursuant to section 24 of the *Nuclear Safety and Control Act* (NSCA) to reflect the company name change from AREVA Resources Canada Inc. to Orano Canada Inc. [1]. Within this request, copies of the Certificate of Amendment issued through the *Canada Business Corporations Act*, dated February 7, 2018, were provided. CNSC staff reviewed the request and associated documentation and determined the name change is strictly an administrative change involving no matter of substance changes to the company [1].

Located in the Athabasca Basin of northern Saskatchewan, the Cluff Lake Project is a former uranium mine and mill operation undergoing decommissioning. In June 2009, the Commission renewed the Cluff Lake Project decommissioning licence effective August 1, 2009 for a 10-year term [2]. As part of the 2009 licence application AREVA included a Detailed Decommissioning Plan. AREVA's implementation of the Detailed Decommissioning Plan is now essentially complete with minor items left such as a few ground water monitoring wells yet to decommission. All structures have been removed and there are no personnel on site.

In accordance with regulatory requirements, AREVA submitted an updated Detailed Decommissioning Plan (2014) and cost estimate (2014) in December 2014 to the CNSC and Saskatchewan Ministry of Environment (SMOE) [3]. The updated Detailed Decommissioning Plan (2014) contained no significant modifications or deviations from the design decommissioning conditions outlined in the Commission approved Detailed Decommissioning Plan (2009). The Detailed Decommissioning Plan (2014) included an update outlining decommissioning activities completed since 2009, thereby reducing the cost estimate of the remaining work. The updated Detailed Decommissioning Plan (2014) described the remaining work to be conducted, ongoing monitoring to be completed and remaining activities necessary to transition the site to the Province of Saskatchewan's Institutional Control Program (ICP). The cost estimate (2014) proposal is the cost to execute these described activities within the updated Detailed Decommissioning Plan (2014). Subsequently, in 2017, AREVA submitted to the CNSC and SMOE the current financial guarantee instruments in the form of letters of credit [4].

The updated Detailed Decommissioning Plan (2014) and proposed cost estimate (2014) have been reviewed and accepted by the SMOE [5] [6].

CNSC staff reviewed the updated Detailed Decommissioning Plan (2014), including the associated cost estimate (2014), and concluded:

- the updated Detailed Decommissioning Plan (2014) meets the requirements of CSA Group standard N294-09, *Decommissioning of Facilities Containing Nuclear Substances* and CNSC Regulatory Guide G-219, *Decommissioning Planning for Licensed Activities*
- the associated updated cost estimate (2014) meets the requirements of CNSC Regulatory Guide G-206, *Financial Guarantees for the Decommissioning of Licensed Activities*
- the updated cost estimate (2014) is acceptable to meet the remaining detailed decommissioning activities described within the updated Detailed Decommissioning Plan (2014) [7]
- the proposed financial guarantee instruments, in the form of Irrevocable Letters of Credit meet the criteria of CNSC Regulatory Guide G-206

CNSC staff recommend amending licence UMDL-MINEMILL-CLUFF.00/2019 to reflect both the company name change and the revised financial guarantee. AREVA also provided a simplified and visually improved map of the surface property lease area. CNSC staff have updated Appendix A of the proposed licence with this new map [8].

AREVA's Cluff Lake Project licence expires July 31, 2019. For the 2019 licence renewal, CNSC staff will modernize the licence to the standardized format and include a Licence Conditions Handbook (LCH).

CNSC staff recommend that the Commission:

- approve CNSC staff's recommendation to accept the revised amount of the financial guarantee and the financial guarantee instruments (subject to Commission directed changes)
- direct AREVA to submit to the Commission, within 90 days of the publication of a decision, revised financial instruments acceptable to the Commission
- approve the amended proposed Decommissioning Licence UMDL-MINEMILL-CLUFF.01/2019

This CMD is presented in two parts.

PART ONE

Part One of this CMD includes:

1. an overview of the matter being presented
2. conclusions and recommendations

PART TWO

Part Two provides all relevant information pertaining directly to the licence, including:

1. the proposed licence
2. the current licence

PART ONE

1 OVERVIEW

1.1 Background

The Cluff Lake Project is owned and operated by AREVA Resources Canada Inc. (AREVA). Located within the Athabasca Basin of northern Saskatchewan, the Cluff Lake Project is approximately 75 kilometres south of Lake Athabasca and 30 kilometres east of the Alberta provincial border (figure 1).

Figure 1: Cluff Lake Project - Location Map



The former uranium mine and mill complex ceased operations in 2002 after 22 years of operation. The Cluff Lake Project consisted of a mill, an open pit and underground mines, waste rock piles, a tailings management area, a two-stage liquid effluent treatment system, a residential camp and various other support and site infrastructure facilities (appendix A).

The Commission approved decommissioning activities in 2004 and the majority of physical decommissioning was completed by 2006. On July 21, 2009 the Commission renewed AREVA's decommissioning licence for an additional 10 year period, valid from August 1, 2009 to July 31, 2019 (UMDL-MINEMILL-CLUFF.00/2019). As part of that renewal, AREVA submitted a financial guarantee of C\$33.6 million.

Under *The Mineral Industry Environmental Protection Regulations, 1996*, the Saskatchewan Ministry of Environment (SMOE) requires that mining and milling operations prepare decommissioning plans and financial assurances. SMOE's independent review of AREVA's updated Detailed Decommissioning Plan (2014) and financial assurance is complementary to CNSC staff's review.

For clarification, under provincial legislation, a financial assurance is provided for completing the decommissioning, whereas CNSC legislation refers to the financial assurance as a financial guarantee.

A memorandum of understanding (MOU) between CNSC and the province of Saskatchewan on reclamation and financial guarantees guides the nature of the cooperation between the parties [9]. The CNSC and SMOE work closely in aligning and coordinating decommissioning and financial guarantee requirements. The MOU specifies that the financial guarantee, when accepted by the province, is conditional until approved by the Commission. The CNSC can invoke the Commission approved financial guarantee to ensure decommissioning is carried out under extenuating circumstances such as bankruptcy or a failure of the licensee to meet regulatory requirements.

As previously stated, the Commission provided approval for decommissioning in 2004 and the majority of physical decommissioning was completed by 2006. From 2009 to 2013, activities at the Cluff Lake Project included ongoing environmental monitoring, care and maintenance, and removal of remaining structures and facilities. AREVA discontinued a full-time presence at the Cluff Lake Project in September 2013 and transitioned to monitoring on a quarterly basis. Monitoring then transitioned to an annual frequency in January 2018.

CNSC staff confirm performance at the Cluff Lake site through compliance activities, the results of which are reported to the Commission through uranium mines and mills regulatory oversight reports.

1.2 Highlights

The following is a chronological summary of the financial guarantee regulatory review and name change:

- AREVA submitted to the CNSC and SMOE for review, an update to the Detailed Decommissioning Plan (2014) and cost estimate (2014) [3]. AREVA's reduced decommissioning cost estimate (2014) reflect activities completed since 2009, thereby decreasing the cost estimate (2014) from C\$33.6 million to C\$26.8 million.
- CNSC staff reviewed the Detailed Decommissioning Plan (2014) and cost estimate (2014) and [7] concluded the updated Detailed Decommissioning Plan (2014) and associated cost estimate (2014) met the criteria of CNSC regulatory guides and documents (appendix B).
- The SMOE accepted the updated Detailed Decommissioning Plan (2014) and cost estimate (2014), in July, 2015 [5].
- AREVA submitted a request [11] for the Commission's consideration to amend the Cluff Lake Project licence, replace the current Detailed Decommissioning Plan (2009) with the updated Detailed Decommissioning Plan (2014) and to consider the proposed associated revisions to the financial guarantee [3] [4] to reduce the amount from C\$33.6 million to C\$26.8 million.

- In February 2018, AREVA submitted to the CNSC a request to amend the current licence to reflect the company name change from AREVA Resources Canada Inc. to Orano Canada Inc.

2 MATTERS FOR CONSIDERATION

2.1 Detailed Decommissioning Plan

In accordance with paragraph 3(a)(viii) of the *Uranium Mines and Mills Regulations* and CNSC Regulatory Guide G-219, *Decommissioning Planning for Licensed Activities*, AREVA is required to maintain decommissioning plans throughout the lifecycle of the Cluff Lake Project. As discussed in section 1.1, SMOE also requires that mining and milling projects prepare decommissioning plans.

AREVA submitted to the CNSC and SMOE an updated Detailed Decommissioning Plan (2014) including a cost estimate (2014) [3] [4]. The updated Detailed Decommissioning Plan (2014) contained no significant modifications or deviations from the design decommissioning conditions outlined in the Commission approved Detailed Decommissioning Plan (2009). The updated Detailed Decommissioning Plan (2014) included outlining decommissioning activities carried out since 2009 such as ongoing environmental and radiological monitoring results, continued earth work (maintenance of covers and revegetation efforts), continued decommissioning of infrastructure and ongoing site clean-up activities. The updated cost estimate (2014) reflects the remaining decommissioning activities, including annual monitoring costs, project management time and funding for activities to transfer the site to the province of Saskatchewan's Institutional Control Program (ICP).

The CNSC and SMOE have reviewed the updated Detailed Decommissioning Plan (2014) including the associated cost estimate (2014) and conclude they meet the respective federal and provincial regulatory requirements [5] [7].

2.2 Financial Guarantee

Under subsection 24(5) of the *Nuclear Safety and Control Act* (NSCA), the Commission may impose a financial guarantee in a form that is acceptable to the Commission. Paragraph 3(1)(l) of the *General Nuclear Safety and Control Regulations* stipulates that "an application for a licence shall contain a description of any proposed financial guarantee related to the activity for which a licence application is submitted." Regulatory Guide G-206, *Financial Guarantees for the Decommissioning of Licensed Activities* provides guidance for calculating the cost estimates to complete decommissioning activities. Financial guarantees are updated if there are material changes in the decommissioning plan affecting associated cost estimates.

The MOU between the CNSC and the province of Saskatchewan [9] stipulates that it is not intended to require owners and/or operators of uranium mining and milling facilities in Saskatchewan to provide separate and distinct financial assurances, subject to consultation and mutual acceptance. The MOU also specifies that an approved financial assurance amount by the Province is conditional until the financial guarantee is approved by the Commission. SMOE is the owner of the lands and beneficiary of the financial assurance for all operating and decommissioned uranium mines and mills in Saskatchewan.

AREVA continues to use letters of credit as financial guarantee instruments which meet the criteria in CNSC Regulatory Guide G-206. AREVA submitted financial guarantee instruments in the form of letters of credit for the current licence that total C\$33.6 million. Upon Commission approval of the amended financial guarantee amount of C\$26.8 million, AREVA will provide new letters of credit as financial guarantee instruments to SMOE with copies to the CNSC [13].

CNSC staff reviewed and confirmed the updated Detailed Decommissioning Plan (2014), associated cost estimate (2014) and financial guarantee, meet CNSC regulatory requirements.

2.3 Company Name Change

On February 15, 2018 AREVA requested an amendment to the Cluff Lake Project licence UMDL-MINEMILL-CLUFF.00/2019 pursuant to section 24 of the NSCA to reflect the company name change from AREVA Resources Canada Inc. to Orano Canada Inc. [1]. Within this request, copies of the Certificate of Amendment issued through the *Canada Business Corporations Act*, dated February 7, 2018 were provided. CNSC staff have assessed AREVA's request for the name change and associated documentation and conclude that the name change is strictly an administrative change involving no matter of substance changes to the company.

2.4 Proposed Licence Changes

An amended licence in its current format is proposed by CNSC staff reflecting the company name change and the revised financial guarantee applications. AREVA's Cluff Lake Project licence expires July 31, 2019.

Existing to Proposed Licence Changes

CURRENT LICENCE	PROPOSED LICENCE	RATIONAL OR COMMENTS
Title: AREVA Resources Canada Inc.	Title: Orano Canada Inc.	Company name change
I: Licence Number: UMDL-MINEMILL-CLUFF.00/2019	I: Licence Number: UMDL-MINEMILL-CLUFF.01/2019	Original licence to amended version 01
II: Licensee: AREVA Resources Canada Inc.	II: Licensee: Orano Canada Inc.	Company Name change
e-Doc 3406610	e-Doc 5475147	Amended licence
Header: UMDL-MINEMILL-CLUFF.00/2019	Header: UMDL-MINEMILL-CLUFF.01/2019	Amended to version 01
Signature date: Dated at Ottawa, this__day of ___ 2009.	Signature date: Dated at Ottawa, this__day of ___ 2018.	Signing year date change
Appendix A: AREVA-Cluff Lake Decommissioning Site Surface Lease Area Showing Old Lease, Present Lease No. MMP 2340, and Removal of Germain Camp for Licensing Period	Appendix A: Orano Canada Inc. – Cluff Lake Project Surface Lease Area, January 2018	Updated surface lease area map and title as provided by AREVA
Appendix B Reference Documents: Cluff Lake Project, Detailed Decommissioning Plan, Version 2, February 2009.	Appendix B Reference Documents: Cluff Lake Project, Detailed Decommissioning Plan, Version 3, December 2014.	New Detailed Decommissioning Plan date change and version 2 becomes version 3

3 OVERALL CONCLUSIONS AND RECOMMENDATIONS

3.1 Overall Conclusions

CNSC staff have concluded that:

- the updated Detailed Decommissioning Plan (2014) meets the requirements of CSA Group standard N294-09, *Decommissioning of Facilities Containing Nuclear Substances* and CNSC Regulatory Guide G-219, *Decommissioning Planning for Licensed Activities*
- the updated cost estimate (2014) meets the requirements of CNSC Regulatory Guide G-206, *Financial Guarantees for the Decommissioning of Licensed Activities*
- the updated cost estimate (2014) is acceptable to meet the remaining detailed decommissioning activities described within the updated Detailed Decommissioning Plan (2014) [7]

- the proposed financial guarantee instruments in the form of Irrevocable Letters of Credit meet the criteria of CNSC Regulatory Guide G-206

3.2 Overall Recommendations

CNSC staff recommend the following to the Commission:

- Approve CNSC staff's recommendation to accept the revised amount of the financial guarantee and the financial guarantee instruments (subject to Commission directed changes)
- Direct AREVA to submit to the Commission, within 90 days of the publication of a decision, revised financial instruments acceptable to the Commission
- Approve the amended proposed Decommissioning Licence UMDL-MINEMILL-CLUFF.01/2019

REFERENCES

- [1] *Name Change of AREVA Resources Canada Inc. to Orano Canada Inc.; Request to Amend the following Licenses: UMOL-MINEMILL-McCLEAN.00/2027; UMDL-MINEMILL-CLUFF.00/2019*, D. Huffman (AREVA) to M. Leblanc (CNSC), February 15, 2018 (e-Doc 5460093).
- [2] *Record of Proceedings and Licence – AREVA Resources Canada Inc.*, L. Levert (CNSC) to T. Van Lambalgen (AREVA), July 22, 2009 (e-Doc 3393931).
- [3] *AREVA Cluff Lake Project, Detailed Decommissioning Plan Version 3 Revision 0*, D. Huffman (AREVA) to J. Glover (CNSC) and A. Merkowsky (SMOE), December 23, 2014 (e-Doc 5065863).
- [4] *Cluff Lake Financial Assurance*, D. Martens (AREVA) to N. Greencorn (CNSC), February 2, 2017 (e-Doc 5184186).
- [5] *Cluff Lake Project, Detailed Decommissioning and Reclamation Plan & Financial Assurance*, A. Merkowsky (Ministry of Environment) to D. Huffman (AREVA), July 6, 2015 (e-Doc 4796076).
- [6] *MOE's current financial assurance holdings for AREVA Cluff Lake*, T. Moulding (SMOE) to D. Martens (AREVA), November 15, 2016 (e-Doc 5228680).
- [7] *Review of Detailed Decommissioning Plan and Cost Estimate for Decommissioning for AREVA's Cluff Lake Project*, M. Kostova (CNSC) to C. Moreau (CNSC) and K. Glenn (CNSC), May 6, 2015 (e-Doc 4724498).
- [8] *Cluff Lake Financial Guarantee CMD – New Surface Lease Map*, D. Huffman (AREVA) to M. Langdon (CNSC), January 27, 2018 (e-Doc 5477774).
- [9] *Memorandum of Understanding between Saskatchewan and AECB*, Atomic Energy Control Board, September 1996 (e-Doc 3816864).
- [10] *Cluff Lake Project Detailed Decommissioning Plan, Version 3 Revision 0*, C. Moreau (CNSC) to D. Huffman (AREVA), July 10, 2015 (e-Doc 4800418).
- [11] *Licence Amendment Request to Approve the Revised Detailed Decommissioning Plan for the Uranium Mine Decommissioning Licence, Cluff Lake Project, Licence Number UMDL-MINEMILL-CLUFF.00/2019 (the "Cluff Lake Licence")*, T. Van Lambalgen (AREVA) to M. Leblanc (CNSC), July 15, 2015 (e-Doc 4861017).
- [12] *Request to Approve the Revised Financial Assurance for the Cluff Lake Project, Licence Number UMDL-MINEMILL-CLUFF.00/2019*, D. Huffman (AREVA) to M. Leblanc (CNSC), November 20, 2017 (e-Doc 5397648).
- [13] *Cluff Lake Project – Approval and Documentation of Updated Financial Assurance*, D. Huffman (AREVA) to M. Langdon (CNSC), March 5, 2018 (e-Doc 5474350).

ACRONYMS

AREVA	AREVA Resources Canada Inc.
CNSC	Canadian Nuclear Safety Commission
CMD	Commission Member Document
ICP	Institutional Control Program
LCH	Licence Conditions Handbook
MOU	Memorandum of Understanding
NSCA	<i>Nuclear Safety and Control Act</i>
Orano	Orano Canada Inc.
SMOE	Saskatchewan Ministry of Environment

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APPENDIX B: BASIS FOR THE RECOMMENDATION(S)

A.1 Regulatory Basis

The regulatory basis for the CNSC staff recommendations presented in this CMD is as follows:

Nuclear Safety and Control Act

Paragraph 24(2)(a)(b) of the *Nuclear Safety Control Act* provides that the Commission may issue, renew, suspend in whole or in part, amend, revoke or replace a licence, or authorize its transfer, on receipt of an application; (a) in the prescribed form; (b) containing the prescribed information and undertakings and accompanied by the prescribed documents.

Subsection 24(5) of the *Nuclear Safety Control Act* provides that a licence may contain any term or condition that the Commission considers necessary for the purposes of this Act, including a condition that the applicant provide a financial guarantee in a form that is acceptable the Commission.

Subsection 24(6) of the *Nuclear Safety Control Act* provides that the Commission may authorize the application of the proceeds of any financial guarantee.

General Nuclear Safety and Control Regulations

The *General Nuclear Safety and Control Regulations* requires under paragraph 3(1)(l) that a licence application contains a description of any proposed financial guarantee relating to the activity to be licensed.

A.2 Technical Basis

Staff's recommendations to the Commission within this CMD are supported on a technical basis and comparison by the following documents:

- CNSC Regulatory Guide G-206, *Financial Guarantees for the Decommissioning of Licensed Activities*
- CNSC Regulatory Guide G-219, *Decommissioning Planning for Licensed Activities*
- CSA Group standard N294-09, *Decommissioning of Facilities Containing Nuclear Substances*
- INFO-0795, *Licensing Basis Objective and Definition*

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PART TWO

The second part of this CMD provides information pertaining directly to the licence, including:

1. The proposed uranium mine decommissioning licence
UMDL-MINEMILL-CLUFF.01/2019
2. The current uranium mine decommissioning licence
UMDL-MINEMILL-CLUFF.00/2019

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PROPOSED LICENCE

e-Doc 5475140 (WORD)

e-Doc 5477898 (PDF)

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URANIUM MINE DECOMMISSIONING LICENCE
Orano Canada Inc.
Cluff Lake Project

- I) LICENCE NUMBER:** UMDL-MINEMILL-CLUFF.01/2019
- II) LICENSEE:** Pursuant to section 24 of the *Nuclear Safety and Control Act* (hereinafter “the Act”), this licence is issued to:

Orano Canada Inc.
817 - 825 – 45th Street West
P.O. Box 9204
Saskatoon, SK S7K 3X5

- III) LICENCE PERIOD:** This licence is valid from August 1, 2009 to July 31, 2019 unless otherwise suspended, amended, revoked, or replaced.

IV) LICENSED ACTIVITIES:

This licence authorizes the licensee to:

- a) decommission a nuclear facility (hereinafter “the facility”). The facility consists of two underground mines, four open-pit mines, a mill, waste management systems, and associated site facilities, all in the Cluff Lake area of northern Saskatchewan, and more particularly described in Appendix A to this licence;
- b) possess, manage and store nuclear substances that are required for, associated with or arise from the activities described in a); and
- c) possess and use prescribed equipment and prescribed information that are required for, associated with or arise from the activities described in a) and b); and
- d) modify the facility subject to condition 2.1

V) CONDITIONS:

The licensee shall comply with the following conditions, established pursuant to subsection 24(5) of the *Nuclear Safety and Control Act*.

1. GENERAL

- 1.1 The appendices attached to this licence form part of this licence;
- 1.2 Subject to any other condition of this licence, the activities at the facility shall be carried out in accordance with the policies, programs, and methods and for the purposes described in the documents listed in Appendix B to this licence;
- 1.3 The licensee shall ensure that every contractor working at the facility complies with the applicable conditions of this licence including those relating to the licensee's policies, programs, and procedures with respect to the protection of health, safety, environment, and, to maintenance of security; and
- 1.4 The licensee shall maintain a financial guarantee for decommissioning acceptable to the Commission or a person authorized by the Commission.

2. MODIFICATIONS

- 2.1 No significant modifications to, or deviations from, the design decommissioning conditions, policies, programs, and/or methods referred to in the document in Appendix B may be made without the prior written approval of the Commission or a person authorized by the Commission.

3. ENVIRONMENTAL PROTECTION

- 3.1 The licensee shall:
 - a) where the effluent concentration reaches or exceeds the discharge limits specified in Appendix C to this licence:
 - i) report to the Commission or a person authorized by the Commission within 24 hours the fact that the discharge limit has been reached or exceeded; and
 - ii) immediately investigate and take corrective action to ensure that effluent concentrations are maintained below the discharge limits;
- 3.2 The licensee shall, within 24 hours of becoming aware that an action level specified in the environmental protection Code of Practice has been reached, notify the Commission or a person authorized by the Commission;

- 3.3 The licensee shall, within 24 hours of becoming aware of a release of a hazardous substance into the environment, not authorized by the licence, report to the Commission or a person authorized by the Commission the location and circumstances of the situation, and any action that the licensee has taken or proposes to take with respect to it.

4. RADIATION PROTECTION

- 4.1 The licensee shall, within 24 hours of becoming aware that the radiation protection action level specified in the Code of Practice has been reached, notify the Commission or a person authorized by the Commission that an action level specified in the Code of Practice has been reached.

5. RECORDS/REPORTING

- 5.1 The licensee shall issue the records required by subsection 5(1) of the *Radiation Protection Regulations* to:

- a) each person referred to in subsection 27(a) of the Act,
- b) the Commission or a person authorized by the Commission, and
- c) the National Dose Registry by March 31st of each year;

- 5.2 The licensee shall submit to the Commission or a person authorized by the Commission by March 31st of each year, a written Annual Report for the facility covering the previous calendar year;

- 5.3 The licensee shall submit the results of the environmental monitoring and Follow-up Program at a frequency and in a form acceptable to the Commission or a person authorized by the Commission; and

- 5.4 The licensee shall submit the results of the radiation monitoring program at a frequency and in a form acceptable to the Commission or a person authorized by the Commission.

6. SAFEGUARDS

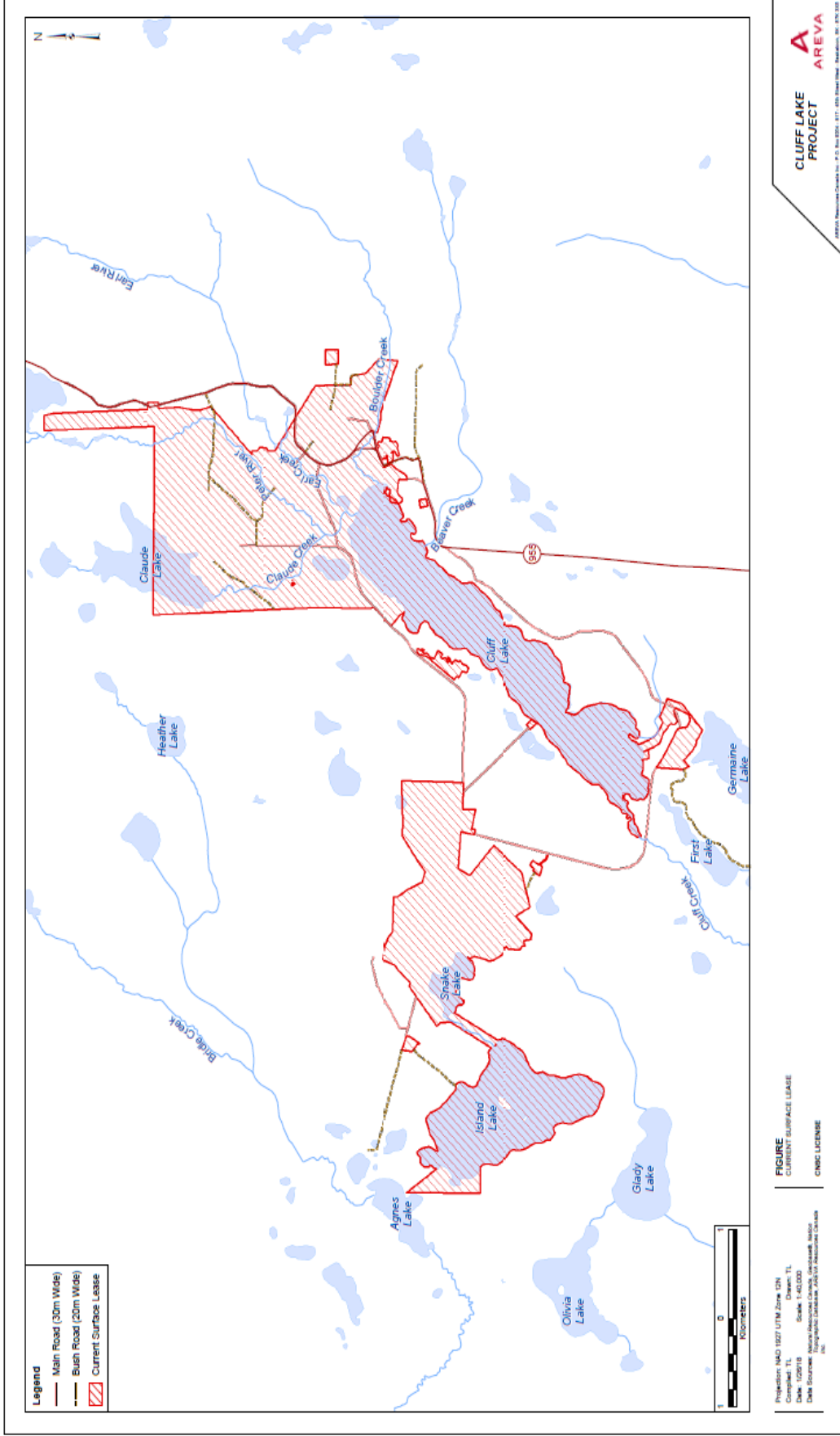
- 6.1.1 The licensee shall comply with the safeguards conditions contained in Appendix D to this licence.

DATED at OTTAWA, this _____ day of _____ 2018.

Michael Binder, President
on behalf of the Canadian Nuclear Safety Commission

APPENDIX A

Orano Canada Inc. – Cluff Lake Project Surface Lease Area, January 2018



APPENDIX B

REFERENCE DOCUMENTS

Cluff Lake Project, Detailed Decommissioning Plan, Version 3, December 2014

DRAFT

APPENDIX C

AUTHORIZED EFFLUENT DISCHARGE LIMITS

Deleterious Substance	Maximum Authorized Monthly Mean Concentration	Maximum Authorized Concentration In a Composite Sample	Maximum Authorized Concentration In a Grab Sample
Arsenic (mg/L)	0.50	0.75	1.00
Copper (mg/L)	0.30	0.45	0.60
Lead (mg/L)	0.20	0.30	0.40
Nickel (mg/L)	0.50	0.75	1.00
Zinc (mg/L)	0.50	0.75	1.00
Total Suspended Solids (mg/L)	15.00	22.50	30.00
Radium-226 (Bq/L)	0.37	0.74	1.11
Acid balance (as H ₃ O ⁺) reported as pH	In a range of 6.0 to 9.5		
Acutely Lethal Effluent	0 %		

Notes:

1. Definition of Units: mg/L = milligrams per litre
 Bq/L = Becquerels per litre
2. All concentrations and activities are total values.
3. The above limits shall apply to all effluent discharged from the Secondary Treatment Pond A2 outlet.
4. "Monthly Mean Concentration" means the average value of the concentrations measured in all composite or grab samples collected from the final discharge point during each month when liquid effluent is released.
5. "Composite Sample" means:
 - i) a quantity of effluent consisting of not less than three equal volumes or three volumes proportionate to flow that have been collected at approximately equal time intervals over a period of not less than seven hours and not more than 24 hours; or
 - ii) a quantity of effluent collected continuously at a constant rate or at a rate proportionate to the rate of flow of the effluent over a sampling period of not less than seven hours and not more than 24 hours.
6. "Grab Sample" means a quantity of undiluted effluent collected at any given time.
7. "Acutely Lethal Effluent" means an effluent at 100% concentration that kills more than 50% of the rainbow trout subjected to it over a 96-hour period when tested in accordance with the acute lethality test.

APPENDIX D

SAFEGUARDS LICENCE CONDITIONS

1. The licensee shall take all necessary measures to facilitate Canada's compliance with any applicable safeguards agreement.
2. The licensee shall provide the International Atomic Energy Agency, an International Atomic Energy Agency inspector, or a person acting on behalf of the International Atomic Energy Agency, with such reasonable services and assistance as are required to enable the International Atomic Energy Agency to carry out its duties and functions pursuant to a safeguards agreement.
3. The licensee shall grant prompt access at all reasonable times to all locations at the facility to an International Atomic Energy Agency inspector, or to a person acting on behalf of the International Atomic Energy Agency, where such access is required for the purposes of carrying on an activity pursuant to a safeguards agreement. In granting access, the licensee shall provide health and safety services and escorts as required in order to facilitate activities pursuant to a safeguards agreement.
4. The licensee shall disclose to the Commission or a person authorized by the Commission, to the International Atomic Energy Agency or to an International Atomic Energy Agency inspector any records that are required to be kept or any reports that are required to be made under a safeguards agreement.
5. The licensee shall provide such reasonable assistance to an International Atomic Energy Agency inspector, or to a person acting on behalf of the International Atomic Energy Agency, as is required to enable sampling and removal or shipment of samples required pursuant to a safeguards agreement.
6. The licensee shall provide such reasonable assistance to an International Atomic Energy Agency inspector, or to a person acting on behalf of the International Atomic Energy Agency, as is required to enable measurements, tests and removal or shipment of equipment required pursuant to a safeguards agreement.
7. The licensee shall not interfere with, alter, deface or break a safeguards seal, except pursuant to a safeguards agreement.
8. The licensee shall implement measures to prevent damage to, or the theft, loss or sabotage of samples collected pursuant to a safeguards agreement or the illegal use, possession or removal of such samples.
9. The licensee shall make such reports and provide such information to the Commission or a person authorized by the Commission as are required to facilitate Canada's compliance with any applicable safeguards agreement.

CURRENT LICENCE

e-Doc 3406610 (PDF)



Directorate of Nuclear Cycle
and Facilities Regulations

Your file Votre référence

Our file Notre référence

2.04

URANIUM MINE DECOMMISSIONING LICENCE
AREVA Resources Canada Inc.
Cluff Lake Project

- I) **LICENCE NUMBER:** **UMDL-MINEMILL-CLUFF.00/2019**
- II) **LICENSEE:** Pursuant to section 24 of the *Nuclear Safety and Control Act* (hereinafter “the Act”), this licence is issued to:
- AREVA Resources Canada Inc.**
817 - 825 – 45th Street West
P.O. Box 9204
Saskatoon, SK S7K 3X5
- III) **LICENCE PERIOD:** This licence is valid from August 1, 2009 to July 31, 2019 unless otherwise suspended, amended, revoked, or replaced.
- IV) **LICENSED ACTIVITIES:**

This licence authorizes the licensee to:

- a) decommission a nuclear facility (hereinafter “the facility”). The facility consists of two underground mines, four open-pit mines, a mill, waste management systems, and associated site facilities, all in the Cluff Lake area of northern Saskatchewan, and more particularly described in Appendix A to this licence;
- b) possess, manage and store nuclear substances that are required for, associated with or arise from the activities described in a);
- c) possess and use prescribed equipment and prescribed information that are required for, associated with or arise from the activities described in a) and b); and

- d) modify the facility subject to condition 2.1

V) CONDITIONS:

The licensee shall comply with the following conditions, established pursuant to subsection 24(5) of the *Nuclear Safety and Control Act*.

1. GENERAL

- 1.1 The appendices attached to this licence form part of this licence;
- 1.2 Subject to any other condition of this licence, the activities at the facility shall be carried out in accordance with the policies, programs, and methods and for the purposes described in the documents listed in Appendix B to this licence;
- 1.3 The licensee shall ensure that every contractor working at the facility complies with the applicable conditions of this licence including those relating to the licensee's policies, programs, and procedures with respect to the protection of health, safety, environment, and, to maintenance of security; and
- 1.4 The licensee shall maintain a financial guarantee for decommissioning acceptable to the Commission or a person authorized by the Commission.

2. MODIFICATIONS

- 2.1 No significant modifications to, or deviations from, the design decommissioning conditions, policies, programs, and/or methods referred to in the document in Appendix B may be made without the prior written approval of the Commission or a person authorized by the Commission.

3. ENVIRONMENTAL PROTECTION

- 3.1 The licensee shall:
 - a) where the effluent concentration reaches or exceeds the discharge limits specified in Appendix C to this licence:
 - i) report to the Commission or a person authorized by the Commission within 24 hours the fact that the discharge limit has been reached or exceeded; and
 - ii) immediately investigate and take corrective action to ensure that effluent concentrations are maintained below the discharge limits;

- 3.2 The licensee shall, within 24 hours of becoming aware that an action level specified in the environmental protection Code of Practice has been reached, notify the Commission or a person authorized by the Commission;
- 3.3 The licensee shall, within 24 hours of becoming aware of a release of a hazardous substance into the environment, not authorized by the licence, report to the Commission or a person authorized by the Commission the location and circumstances of the situation, and any action that the licensee has taken or proposes to take with respect to it.

4. RADIATION PROTECTION

- 4.1 The licensee shall, within 24 hours of becoming aware that the radiation protection action level specified in the Code of Practice has been reached, notify the Commission or a person authorized by the Commission that an action level specified in the Code of Practice has been reached.

5. RECORDS/REPORTING

- 5.1 The licensee shall issue the records required by subsection 5(1) of the *Radiation Protection Regulations* to:
- a) each person referred to in subsection 27(a) of the Act,
 - b) the Commission or a person authorized by the Commission, and
 - c) the National Dose Registry by March 31st of each year;
- 5.2 The licensee shall submit to the Commission or a person authorized by the Commission by March 31st of each year, a written Annual Report for the facility covering the previous calendar year;
- 5.3 The licensee shall submit the results of the environmental monitoring and Follow-up Program at a frequency and in a form acceptable to the Commission or a person authorized by the Commission; and
- 5.4 The licensee shall submit the results of the radiation monitoring program at a frequency and in a form acceptable to the Commission or a person authorized by the Commission.

6. SAFEGUARDS

- 6.1 The licensee shall comply with the safeguards conditions contained in Appendix D to this licence.

DATED at OTTAWA, this 21st day of July 2009.

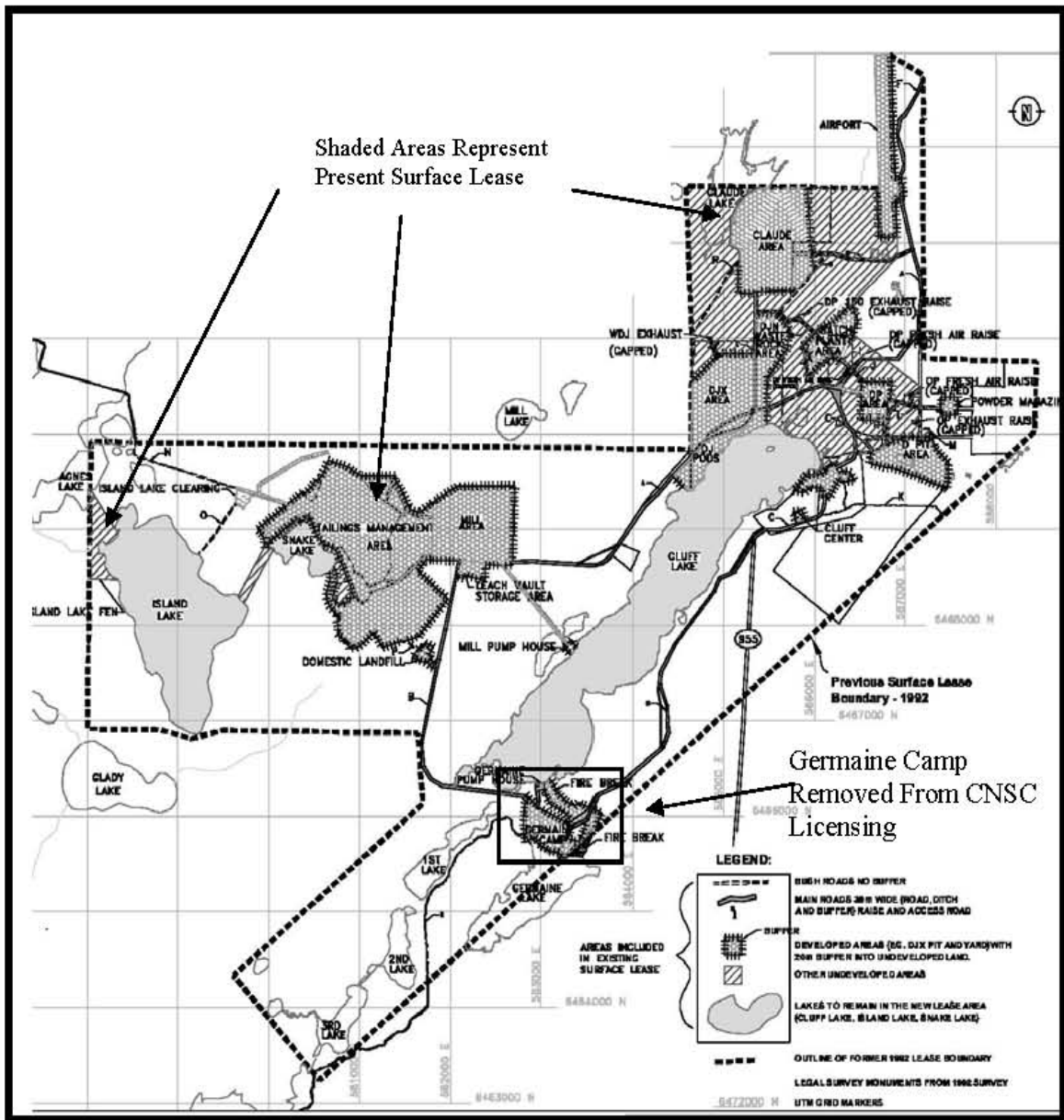


A handwritten signature in black ink, appearing to read "Michael Binder", is written over a horizontal line.

Michael Binder, President
on behalf of the Canadian Nuclear Safety Commission

APPENDIX A

AREVA – Cluff Lake Decommissioning Site
 Surface Lease Area Showing Old Lease, Present Lease No. MMP 2340,
 and Removal of Germaine Camp for New Licensing Period



APPENDIX B

REFERENCE DOCUMENTS

Cluff Lake Project, Detailed Decommissioning Plan, Version 2, February 2009.

APPENDIX C

AUTHORIZED EFFLUENT DISCHARGE LIMITS

Deleterious Substance	Maximum Authorized Monthly Mean Concentration	Maximum Authorized Concentration In a Composite Sample	Maximum Authorized Concentration In a Grab Sample
Arsenic (mg/L)	0.50	0.75	1.00
Copper (mg/L)	0.30	0.45	0.60
Lead (mg/L)	0.20	0.30	0.40
Nickel (mg/L)	0.50	0.75	1.00
Zinc (mg/L)	0.50	0.75	1.00
Total Suspended Solids (mg/L)	15.00	22.50	30.00
Radium-226 (Bq/L)	0.37	0.74	1.11
Acid balance (as H ₃ O ⁺) reported as pH	In a range of 6.0 to 9.5		
Acutely Lethal Effluent	0 %		

Notes:

1. Definition of Units: mg/L = milligrams per litre
 Bq/L = Becquerels per litre
2. All concentrations and activities are total values.
3. The above limits shall apply to all effluent discharged from the Secondary Treatment Pond A2 outlet.

4. “Monthly Mean Concentration” means the average value of the concentrations measured in all composite or grab samples collected from the final discharge point during each month when liquid effluent is released.
5. “Composite Sample” means:
 - i) a quantity of effluent consisting of not less than three equal volumes or three volumes proportionate to flow that have been collected at approximately equal time intervals over a period of not less than seven hours and not more than 24 hours; or
 - ii) a quantity of effluent collected continuously at a constant rate or at a rate proportionate to the rate of flow of the effluent over a sampling period of not less than seven hours and not more than 24 hours.
6. “Grab Sample” means a quantity of undiluted effluent collected at any given time.
7. “Acutely Lethal Effluent” means an effluent at 100% concentration that kills more than 50% of the rainbow trout subjected to it over a 96-hour period when tested in accordance with the acute lethality test.

APPENDIX D

SAFEGUARDS LICENCE CONDITIONS

1. The licensee shall take all necessary measures to facilitate Canada's compliance with any applicable safeguards agreement.
2. The licensee shall provide the International Atomic Energy Agency, an International Atomic Energy Agency inspector, or a person acting on behalf of the International Atomic Energy Agency, with such reasonable services and assistance as are required to enable the International Atomic Energy Agency to carry out its duties and functions pursuant to a safeguards agreement.
3. The licensee shall grant prompt access at all reasonable times to all locations at the facility to an International Atomic Energy Agency inspector, or to a person acting on behalf of the International Atomic Energy Agency, where such access is required for the purposes of carrying on an activity pursuant to a safeguards agreement. In granting access, the licensee shall provide health and safety services and escorts as required in order to facilitate activities pursuant to a safeguards agreement.
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APPENDIX D (Cont'd.)

SAFEGUARDS LICENCE CONDITIONS

9. The licensee shall make such reports and provide such information to the Commission or a person authorized by the Commission as are required to facilitate Canada's compliance with any applicable safeguards agreement.