



UNPROTECTED/NON PROTÉGÉ

SUPPLEMENTAL/COMPLÉMENTAIRE

CMD: 18-H102.A

Date signed/Signé le : JUNE 22, 2018

Reference CMD(s)/CMD(s) de référence : 09-H7, 18-H102

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**

**Garantie financière
modifiée et changement
de nom de la société**

Hearing in writing based on written
submissions

Audience fondée sur des mémoires

Scheduled for:

Prévue pour :

June 2018

Juin 2018

Submitted by:

Soumise par :

CNSC Staff

Le personnel de la CCSN

Summary

This Commission Member Document (CMD) provides supplementary information to CNSC staff CMD 18-H102 and includes CNSC staff's response to written interventions concerning AREVA Resources Canada Inc., Cluff Lake Project, amended financial guarantee and company name change.

This information does not change CNSC staff's conclusions and recommendations presented in CMD 18-H102.

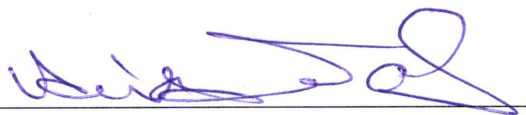
Résumé

Le présent document à l'intention des commissaires (CMD) présente des renseignements supplémentaires qui s'ajoutent au CMD 18-H102 du personnel de la CCSN et comprend les réponses du personnel de la CCSN aux interventions écrites concernant la garantie financière modifiée et le changement de nom de société pour l'établissement de Cluff Lake d'AREVA Resources Canada inc.

Ces renseignements ne modifient en rien les conclusions et les recommandations du personnel de la CCSN formulées dans le CMD 18-H102.

Signed/Signé le

June 22, 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

This page was intentionally left blank.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
1 BACKGROUND.....	2
2 RESPONSE TO BUFFALO NARROWS METIS COMMUNITY COUNCIL SUBMISSION	2
3 RESPONSE TO VAL DRUMMOND AND RODNEY GARDINER SUBMISSION	3
3.1 Legacy Versus Modern Practices and Tailings Management.....	4
3.2 Release of Constituents to the Environment	5
3.3 Decommissioning and Long Term Monitoring	5
3.4 Financial Guarantee	5
4 OVERALL CONCLUSIONS AND RECOMMENDATIONS.....	6
REFERENCES	7

This page was intentionally left blank.

EXECUTIVE SUMMARY

This CMD provides supplemental information to CMD 18-H102.

During the public review period of CMD 18-H102, two interventions were received and have been entered into the record as:

- CMD 18-H102.2: *Written Submission from the Buffalo Narrows Metis Community Council* [2]
- CMD 18-H102.3: *Written Submission from Val Drummond and Rodney Gardiner* [3]

This CMD contains CNSC staff conclusions regarding these two interventions.

Information provided through the interventions and addressed in this CMD does not change CNSC staff's conclusions or recommendations set out in CMD 18-H102 [1].

1 BACKGROUND

On April 25, 2018 the Canadian Nuclear Safety Commission (CNSC) published a *Notice of Hearing* that the Commission would consider acceptance of the revised financial guarantee for the Cluff Lake Project. Furthermore, the Commission would consider an amendment to the Cluff Lake Project Uranium Mine Decommissioning Licence reflecting a company name change from AREVA Resources Canada Inc. to Orano Canada Inc. The *Notice of Hearing* marked the start of a 30-day public review period followed by the submission of written interventions. CNSC staff's assessment, as well as conclusions and recommendations to the Commission, are provided in CMD 18-H102 [1].

This supplemental CMD has been developed to address the following interventions:

- CMD 18-H102.2: *Written Submission from the Buffalo Narrows Metis Community Council* [2]
- CMD 18-H102.3: *Written Submission from Val Drummond and Rodney Gardiner* [3]

Information provided through the interventions addressed in this CMD does not change staff's conclusions or recommendations set out in CMD 18-H102 [1]. References within this supplemental CMD are available upon request.

2 RESPONSE TO BUFFALO NARROWS METIS COMMUNITY COUNCIL SUBMISSION

CNSC staff appreciate that the Buffalo Narrows Metis Community Council (BN-MCC) shared their views with regard to mining activities related to the Cluff Lake Project, and encourages AREVA Resources Canada Inc. to engage with BN-MCC on the concerns raised.

As outlined in CMD 18-H102 [1], CNSC staff completed a review of the detailed decommissioning plan (DDP) [4], including the associated cost estimate and concluded the value of the proposed financial guarantee was credible for the decommissioning costs associated with the Cluff Lake Project.

CNSC staff actively engage with indigenous communities and CNSC staff welcome future engagement opportunities with BN-MCC to better understand their concerns related to the Cluff Lake Project. A public hearing will be held in the summer of 2019 to consider the Cluff Lake Project licence renewal. Participant funding under the CNSC's Participant Funding Program (PFP) is offered in relation to any Commission hearing. At that time, BN-MCC could apply for participant funding to further explore and characterize their concerns related to the Cluff Lake Project.

The BN-MCC is concerned with cumulative impacts relating to mining activities including the removal of non-renewable mineral resources. BN-MCC suggests the difference of C\$6.8 million that would result, should the Commission approve the proposed financial guarantee (FG), be used to strengthen the BN-MCC economic base.

Section 9 of the *Nuclear Safety and Control Act* (NSCA) [5] outlines the purpose of the Commission which includes components relating to health and safety, environmental protection, international obligations and dissemination of scientific information to the general public. The NSCA and its associated regulations do not provide for economic considerations or resource development rights as they pertain to uranium development.

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.” The Cluff Lake FG is designed to ensure sufficient funds are available to fund decommissioning activities should the licensee become unable to fulfill its decommissioning obligations. Economic development of communities is outside of the scope of subsection 24(7) of the NSCA which provides for the return to the licensee, any monies not required for decommissioning. As such, all monies should be retained for decommissioning necessities or returned to the licensee.

The current Cluff Lake Project FG is in the form of letters of credit. Any monies resulting from the Commission approval of a new value for the FG does not result in a liquid asset return to the company. Instead, if the proposed FG is approved by the Commission, new letters of credit will be drafted for the value of the revised FG and submitted to the CNSC for acceptance.

3 RESPONSE TO VAL DRUMMOND AND RODNEY GARDINER SUBMISSION

This intervention does not make any requests of the Commission; however, it made two statements for the record relating to the perceived ineffective decommissioning of the Cluff Lake Project and opposing the transfer of the Cluff Lake Project back to the province of Saskatchewan.

Many points discussed in this intervention have been previously brought to the attention of the Commission and fully addressed by CNSC staff and the licensee through various Commission meetings, media publications and site visits including:

- December 14, 2016 meeting of the Commission, the *Regulatory Oversight Report for Uranium Mines, Mills, Historic and Decommissioned Sites in Canada: 2015* (Regulatory Oversight Report [ROR], 2015) [6].
- December 13, 2017 meeting of the Commission, the *Regulatory Oversight Report for Uranium Mines and Mills in Canada: 2016* (ROR, 2016) [7].

- *Cluff Lake Decommissioning: Is it complete, Opportunity North*, January-February 2018 (Mr. Gardiner's concerns were addressed by both CNSC staff and the licensee) [8].
- A site tour of the Cluff Lake site provided to Mr. Gardiner and Ms. Drummond by AREVA in September 2017.

3.1 Legacy Versus Modern Practices and Tailings Management

Val Drummond and Rodney Gardiner (Drummond and Gardiner) express dissatisfaction with legacy issues surrounding projects such as the Gunnar Mine site with an emphasis on tailings management. Drummond and Gardiner enquire if modern decommissioning practices will be protective of people and the environment for thousands of years into the future, considering the long half-life of many radioactive constituents.

Unlike legacy sites, which were not decommissioned to a condition that would meet today's standards, the Cluff Lake Project was designed under a regulatory framework which included an environmental assessment and considered decommissioning during the initial design stages of the project. The Cluff Lake tailings management area (TMA) was approved by regulators in the early 1980s, following consideration under the project's environmental assessment. Tailings at the Cluff Lake site are specifically designed to stay in place and reduce releases of constituents ensuring continued safety for people and the environment.

During decommissioning, a 1 to 5 metre cover was placed over the TMA to limit access and further limit water infiltration through the tailings. The TMA is regularly inspected (including geotechnical inspections), performance monitored and maintained by third party contractors employed by AREVA. In 2013, additional cover material was added to areas exhibiting minor subsidence of the cover. To date no tailings exposure has been exhibited on surface and the tailings management facility continues to operate within designed specifications. Information specific to the performance of the tailings management cover was discussed during the Regulatory Oversight Report of the December 14, 2016 meeting of the Commission [6] (p. 376), [9] (paragraph 94).

The Cluff Lake Project TMA is designed for the long term containment of tailings. Although Drummond and Gardiner focus primarily on radioactive constituents in their intervention, radioactive constituents will decay to stable products over time. Tailings also consist of many stable constituents, such as heavy metals, which will not decay and must be managed indefinitely. The Cluff Lake TMA was assessed [10] to ensure adequate performance for the next 10,000 years.

CNSC staff continue to carry out regular compliance inspections and review monitoring results and reports to ensure the Cluff Lake tailings management facility is maintained and continues to operate within designed specifications.

3.2 Release of Constituents to the Environment

Drummond and Gardiner express that materials leaching out of the TMA and waste rock piles are a risk to the safety of people and the environment.

Paragraph 3(a)(viii) of the *Uranium Mines and Mills Regulations* [11] requires that licensees provide a proposed plan for decommissioning. The Cluff Lake Project's DDP outlines decommissioning objectives established through the development of the *Comprehensive Study Report, Cluff Lake Decommissioning Project* [12]. CNSC staff have evaluated and accepted AREVA's DDP for Cluff Lake. In addition, environmental risk assessments are updated on a 5-year basis. AREVA's environmental risk assessments predict and substantiate through monitoring the potential impact on components of the Cluff Lake ecosystem. During the December 14, 2016 meeting of the Commission [6] (p. 337), concentrations of hazardous substances in surface waters were reported to be well below the decommissioning objectives.

Specific to concerns in the intervention about moose, through the CNSC PFP, a moose sample was obtained by Mr. Gardiner, a laboratory analysis carried out and the results presented to the Commission. The conclusion, as presented by Dr. Irvine during the December 14, 2016 meeting of the Commission [6] (p. 385), [9] (paragraphs 96-98), indicated the moose was healthy and safe to eat.

CNSC staff continue to carry out regular compliance inspections and review monitoring results and reports to ensure the protection of the environment and the health and safety of people.

3.3 Decommissioning and Long Term Monitoring

Drummond and Gardiner express concern that activities and monitoring over a 14 year period are insufficient to ensure successful decommissioning.

The Cluff Lake DDP provides a detailed account of decommissioning activities and objectives. CNSC staff have evaluated and approved AREVA's DDP. Once decommissioning has been completed and meets the requirements of the DDP to the satisfaction of the Commission, the province of Saskatchewan's Institutional Control Program (ICP) implements a process for long term monitoring and maintenance of the decommissioned site. As part of the Cluff Lake Project's application for a licence renewal in June 2019, a plan for the transfer, wholly or in part of the Cluff Lake property to the province of Saskatchewan's ICP, will be submitted to the Commission for consideration.

3.4 Financial Guarantee

Drummond and Gardiner express concern that the change in the value of the financial guarantee from C\$33.6 to C\$26.8 million is insufficient to cover future decommissioning costs.

The current FG for the Cluff Lake Project was discussed during the December 14, 2016 meeting of the Commission [6] (p. 303), [13] (paragraphs 118-120).

The Cluff Lake FG is based on the Cluff Lake specific DDP which outlines the end state of the project and the steps the company will take to reach that end state. A cost estimate outlines the basis for the value of the FG and is based on the project end state as described in the DDP. As indicated previously, CNSC staff have evaluated and accepted AREVA's DDP. Detailed decommissioning plans and cost estimates are reviewed against CSA Group standard N294-09, *Decommissioning of Facilities Containing Nuclear Substances* [14] and against CNSC regulatory documents by specialist CNSC staff which results in a determination on the acceptability of the DDP and credibility of the cost estimate.

As discussed in CMD 18H-102, the province of Saskatchewan's Ministry of Environment (SMOE) completed an independent review of the FG as required under *The Mineral Industry Environmental Protection Regulations, 1996* [15]. The SMOE concluded the updated DDP and associated cost estimate meet provincial regulatory requirements.

Further information on the establishment of the Cluff Lake Project FG is provided in CMD 18H-102.

4 OVERALL CONCLUSIONS AND RECOMMENDATIONS

The comments provided by the two interventions and updates presented in this supplemental CMD does not change CNSC staff's conclusions or recommendations found in CMD 18-H102.

REFERENCES

- [1] *AREVA Resources Canada Inc. Cluff Lake Project, Amended Financial Guarantee and Company Name Change: CMD 18-H102*, April 25, 2018 (e-Doc 5286288).
- [2] *Written Submission from the Buffalo Narrows Metis Community Council: CMD 18-H102.2*, June, 2018 (e-Doc 5546510).
- [3] *Written Submission from Val Drummond and Rodney Gardiner: CMD 18-102.3*, June, 2018 (e-Doc 5547005).
- [4] *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).
- [5] *Nuclear Safety and Control Act*, S.C., 1997.
- [6] *Transcript of Commission Meeting of December 14, 2016*, Canadian Nuclear Safety Commission Public Meeting (e-Doc 5158774).
- [7] *Transcript of Commission Meeting of December 13, 2017*. Canadian Nuclear Safety Commission Public Meeting (e-Doc 5420203).
- [8] *Cluff Lake Decommissioning: Is it complete, Opportunity North (Magazine)*, January-February 2018, p. 12 to 16 (e-Doc 5464080).
- [9] *Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting held on December 14, 2016* (e-Doc 5173858).
- [10] *Detailed Work Package- Tailings Management Area – Cluff Lake – March 2004*, April 26, 2004 review date (e-Doc 1202845).
- [11] *Uranium Mines and Mills Regulations* (2000).
- [12] *Comprehensive Study Report, Cluff Lake Decommissioning Project, Canadian Nuclear Safety Commission*, December, 2003 (e-Doc 3951630).
- [13] *Minutes of the Canadian Nuclear Safety Commission (CNSC) Meeting Held on December 13-14, 2017* (e-Doc 5483920).
- [14] CSA Group standard N294-09, *Decommissioning of Facilities Containing Nuclear Substances*.
- [15] *The Mineral Industry Environmental Protection Regulations, 1996*.

ACRONYMS

AREVA	AREVA Resources Canada Inc.
BN-MCC	Buffalo Narrows Metis Community Council
CNSC	Canadian Nuclear Safety Commission
CMD	Commission Member Document
DDP	Detailed Decommissioning Plan
FG	Financial Guarantee
ICP	Institutional Control Program
NSCA	<i>Nuclear Safety and Control Act</i>
Orano	Orano Canada Inc.
PFP	Participant Funding Program
ROR	Regulatory Oversight Report
SMOE	Saskatchewan Ministry of Environment
TMA	Tailings Management Area