



Canadian Nuclear
Safety Commission

Commission canadienne
de sûreté nucléaire

Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant AREVA Resources Canada Inc.

Subject Environmental Assessment Screening Report
for the Proposed Caribou Project at McClean
Lake

Hearing
Date April 7, 2010

RECORD OF PROCEEDINGS

Applicant: AREVA Resources Canada Inc.

Address/Location: P.O. Box 9204, 817 45th Street West, Saskatoon, Saskatchewan,
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Purpose: Environmental Assessment Screening Report for the Proposed
Caribou Project at McClean Lake

Application received: March 15, 2010

Date of hearing: April 7, 2010

Location: Canadian Nuclear Safety Commission (CNSC)
280 Slater St., Ottawa, Ontario

Members present: M. Binder, Chair A. Harvey
M.J. McDill

Secretary: M.A. Leblanc
Recording Secretary: P. Reinhardt
Senior General Counsel: J. Lavoie

EA Screening Report: Approved

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Introduction

1. AREVA Resources Canada Inc. (AREVA) is proposing to develop the Caribou uranium ore deposit at their McClean Lake Operation in northern Saskatchewan. The project requires amending the current operating licence, UMOL-MINEMILL-McCLEAN.00/2017, issued to AREVA by the Canadian Nuclear Safety Commission¹ (CNSC) under subsection 24(2) of the *Nuclear Safety and Control Act* (NSCA)². A screening-level environmental assessment (EA) under the *Canadian Environmental Assessment Act*³ (CEAA) is required before the Commission can consider a licence amendment. The Commission is the only Responsible Authority for this project⁴. The Province of Saskatchewan also has a requirement to conduct an EA under their provincial legislation, and the Province has led the resulting harmonized EA process. The project received Saskatchewan ministerial environmental assessment approval on July 21, 2009.
2. AREVA is proposing to mine the Caribou ore deposit, transport the ore to its existing mill, process the ore to produce yellowcake (a form of uranium), and manage the waste water, waste rock and tailings produced from these activities. The purpose is to extend mining and milling activities at the McClean Lake Operation. The project would take place entirely within the surface lease boundary of the McClean Lake Operation, situated west of Wollaston Lake in north-eastern Saskatchewan.
3. It was originally expected that AREVA would be in a position to submit to CNSC all the licensing documentation in the fall of 2009 and that the licensing Commission Member Document (CMD) would be presented with the EA Screening Report (EASR) at a public hearing of the Commission. However, AREVA has indicated that the timing of the project has been delayed by at least 18 months and that they do not intend to proceed with a licence amendment at this time. Given that the Province of Saskatchewan has already approved the EA, CNSC staff is presenting the proposed EASR for a Commission approval at an abridged hearing with the understanding that any future licensing hearing would be conducted at a public hearing with an opportunity for intervenors to participate.

Issue

4. In considering the EASR, the Commission was required to decide:
 - 1) whether the EASR is complete; that is, whether all of the factors and instructions set out in the approved EA Guidelines and subsection 16(1) of the CEAA were adequately addressed;

¹ 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 Statutes of Canada, (S.C.) 1997, c. 9.

³ S.C. 1992, c. 37.

⁴ Responsible Authority in relation to an EA is determined in accordance with subsection 11(1) of the CEAA.

- 2) whether the project, taking into account the mitigation measures identified in the EASR, is likely to cause significant adverse environmental effects;
- 3) whether the project will be referred to the federal Minister of the Environment for referral to a review panel or mediator (i.e., pursuant to paragraph 20(1)(c) of the CEAA); and
- 4) whether the Commission will proceed with its consideration of the licence application under the NSCA (i.e., consistent with paragraph 20(1)(a) of the CEAA).

Hearing

5. Pursuant to section 22 of the NSCA, the President of the Commission established a Panel of the Commission (hereafter referred to as the Commission) to hear this matter.
6. The Commission, in making its decision, considered information presented for a hearing held on April 7, 2010 in Ottawa, Ontario. During the hearing, the Commission considered written submissions from CNSC staff (CMD 10-H102) and AREVA (CMD 10-H102.1), as well as the EASR attached to CNSC staff's submission.

Decision

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

- a) the Environmental Assessment Screening Report appended to CMD 10-H102 is complete. The scope of the project and assessment were appropriately determined in accordance with sections 15 and 16 of the *Canadian Environmental Assessment Act*, and all of the required assessment factors were addressed during the assessment.
- b) the project, taking into account the mitigation measures identified in the Environmental Assessment Screening Report, is not likely to cause significant adverse environmental effects;
- c) it will not refer the project to the federal Minister of the Environment for his referral to a federal Environmental Assessment review panel or mediator; and
- d) consistent with paragraph 20(1)(a) of the *Canadian Environmental Assessment Act*, the Commission will proceed to consider the application for a Waste Nuclear Substance Licence under the provisions of the *Nuclear Safety and Control Act*.

8. With this decision, the Commission also requires that some clarifications be made to the EASR to enhance the understanding of the report and to emphasize elements that have to be integrated into the follow-up program.

Issues and Commission Findings

9. In making its decision, the Commission addressed the issues identified above, under two areas:
 1. the summary of the EASR and its completeness; and
 2. the aboriginal level of concerns and consultation on the project.

The Commission's findings are summarized below.

Summary of the EASR and its Completeness

10. In its consideration of the completeness of the EASR, the Commission considered whether the assessment had adequately addressed the scope of the project and assessment factors to be considered.
11. It is reported in the EASR that the site for the proposed project is already well characterized, as the existing McClean Lake Operation has undergone past EA reviews related to the mines and mill (e.g., original 1993 joint panel review of construction and operation; 2005 mining of Sue E ore, 2006 ferric sulphate production). It is also reported that additional EAs have been completed on the use of on-site infrastructure for off-site projects (e.g., 1997 joint panel review of processing Cigar Lake and Midwest ores at the McClean mill, 2003 Cigar Lake waste rock disposal in Sue C pit, 2008 Rabbit Lake uranium rich solution processing project). As a condition of the McClean Lake licence, extensive environmental monitoring data, including environmental effects data, have been collected since the start of mining and milling operations on the site in the 1990's.
12. The timelines associated with the EA are outlined in the proposed EASR. The project proposal was submitted in December 2006. The EA Guidelines, jointly developed by the federal and provincial governments, were issued to AREVA on January 14, 2008. AREVA's findings were submitted in an Environmental Impact Statement (EIS) and reviewed by the following federal and provincial authorities: the CNSC, the Canadian Environmental Assessment Agency (CEAA), Health Canada, Environment Canada, Fisheries and Oceans Canada, and the Saskatchewan Ministry of Environment. The review team provided comments and identified information gaps, which resulted in AREVA submitting a revised EIS. The revised EIS was used to produce the contents of this EASR. The Draft EASR was available for public review from April 2 until May 5, 2009.

13. The EA identified 390 potential project-environment interactions and among those, 138 were further assessed as interactions with potential residual effects. It has also been identified that there was a possibility for residual effects from the following environmental components: noise; groundwater flow; surface water levels/drainage alteration; aquatic biota; aquatic habitat; surface water; sediment; terrestrial biota; terrestrial habitat/land disturbance; soil; lands and resource use; and landscape/visual setting. After each potential residual effect had been assessed, it was determined that none was significant as described in details in Section 6.1 of the Proposed EASR.
14. The Commission sought additional information on the contribution of the Caribou Project on the air quality of McClean Lake area. CNSC staff confirmed that it would not have a significant effect to the surrounding area, taking into account it would not be the only mine in operation.
15. On the issue of whether the sulphur oxide concentrations observed in the McClean Lake area were back to normal, the Commission was informed that the concentrations of sulphur dioxide that were observed to be above the provincial standards were associated with the start-up of the acid plant in 1999. CNSC staff confirmed that these concentrations have since been controlled and that the current average annual concentrations are below the provincial standards.
16. CNSC staff informed the Commission that Sink Lake and Vulture Lake are in the local assessment boundary and are now collectively called the Sink Vulture Treated Effluent Management System (SVTEMS). These lakes are used to manage the volume and flow of effluent from the McClean Lake Operation to Collins Creek. CNSC staff also informed the Commission that they were assessed with respect to environmental effects in previous EAs and are only mentioned in the EASR to place them in context within the Caribou Project.
17. The Commission was informed that selenium is not an issue at McClean Lake since monitoring activities demonstrated that selenium concentrations were decreasing in the downstream area. The Commission was also informed that the Caribou Project water treatment system would be continuously monitored for selenium so that it does not contribute to an increase in these concentrations. CNSC staff informed the Commission that selenium levels at McClean Lake are lower than the Canadian Council of the Minister of the Environment (CCME) guidelines for selenium levels in aquatic biota and therefore do not constitute an issue.
18. The Commission was informed that the potential spreading of selenium in the environment through the migration of contaminated fish would be low and that the risk of contamination of the food chain in such a manner would also be non-significant.
19. CNSC staff also reported that the following potential effects of the environment on the project were considered: seismic events, climate events, and forest fires. CNSC staff noted that the assessment concluded that there are no residual effects predicted from the effect of the environment on the project.

20. CNSC staff reported that the cumulative effects have been considered by assessing other projects that may overlap in time or space with the Caribou Project and, together, cause significant environmental effects. CNSC staff noted that three residual cumulative effects were predicted, but that they were deemed not to be significant, as described in Section 6.3 of the proposed EASR.
21. The Commission was informed that the current EASR would still be applicable even if the project is delayed for several years, as long as the project does not change. Additional assessments could be requested if some issues are raised at the time of licensing.

Conclusion on the EA Screening Report and its Completeness

22. CNSC staff confirmed that the conclusion in the proposed EASR is that the project is unlikely to cause significant adverse environmental effects, taking into account mitigation measures. A preliminary follow-up program is suggested in section 9.0 of the proposed EASR and a detailed follow-up program will need to be developed should the McClean Lake licence be amended to allow the project to proceed. CNSC staff informed the Commission that the follow-up program will require continuing with initiatives already taking place at the McClean Lake Operation. CNSC staff also confirmed that it will use the CNSC licensing and compliance program as the mechanism to ensure the final design and proper implementation of the follow-up program, and as well as a tool to report the program results. These results will be made available to the public through the Canadian Environmental Assessment Registry (CEAR).
23. The Commission concurs with CNSC staff's conclusions on the EASR and insists that a detailed follow-up program needs to be developed should the project go ahead. The Commission is of the opinion that regular monitoring and reporting should be part of this follow-up program and that the data should be publicly available.
24. The Commission also directs CNSC staff to clarify some wording in the EASR to avoid any confusion in the predictions outlined in the report. The Commission also requests that CNSC staff include in the report areas where follow-up monitoring will be applied.

Aboriginal Level of Concerns and Consultation on the Project

25. CNSC staff reported that the proposed Caribou Project is within the boundaries of Treaty #10, signed in 1906, which includes the following Aboriginal groups: Hatchet Lake, Birch Narrows and English River First Nations, Canoe Lake Cree First Nation, Buffalo River Dene Nation in Saskatchewan, and Barren Lands and Northlands First Nations in Manitoba. CNSC staff reported that this Treaty contains a provision which states that the right to hunt, fish and trap are guaranteed in exchange for ceding an

interest in lands set aside for, among other activities, mining, settlement, lumbering, trading and/or other purposes. CNSC staff noted that three bands of the Athabasca Denesuline - Hatchet Lake, Black Lake and Fond du Lac - have claimed an area spanning parts of Treaty #8 and Treaty #10 as their traditional territory.

26. With respect to the current use of lands and resources for Aboriginal peoples traditional purposes, CNSC staff reported that the Environmental Impact Statement (EIS) indicates that the area subject to the existing McClean Lake surface lease is within the Barren Ground caribou herd winter range, and has a moderate-to-high potential for caribou foraging, but little historic evidence of significant caribou presence in the McClean Lake surface lease area. CNSC staff added that the lease area is subject to a low level of trapping (2-5 overlapping areas), to minimal historic sightings of moose (aerial surveys, 1976-1994), and that no animal kill sites, spiritual places, subsistence or commercial water use, overnight sites, or plant and earth materials of interest are included in the area.
27. CNSC staff also reported that the Métis Nation of Saskatchewan (MNS) had claimed for its rights to harvest for food in Saskatchewan and made, at a public hearing on McClean Lake Uranium Mine Operating Licence renewal⁵ held in Ottawa on April 30, 2009, the assertion that “Métis people live in close proximity to the McClean Lake operations” but “...have not been provided resources to produce a traditional land use map (or) the resources to understand the impacts of the McClean Lake operations on the environment or on Métis traditional gathering practices.” CNSC staff noted that the proposed Caribou pit is within the MNS Northern 1 administrative region, within which there are seven chapters, or “locals”, and that there are no MNS locals within 300 km of the McClean lake surface lease, although it is generally recognized that a Métis community exists at Wollaston Lake, adjacent to the Hatchet Lake reserve of Lac La Hache 220.

Aboriginal Consultation Specific to the Caribou Project

28. CNSC staff reported that the Province of Saskatchewan and the CEAA were both the lead Crown consultation coordinators on the Caribou Project. CNSC staff confirmed that the Province of Saskatchewan made available copies of the jointly-developed draft Project-Specific Guidelines on August 1, 2007 to First Nations and Métis groups and accepted written comments until August 31, 2007.
29. CNSC staff confirmed that, from August 2008 to March 2009, it has reviewed AREVA's draft and revised EIS and has prepared a draft EASR for the Caribou Project. CNSC staff added that, throughout January to March 2009, the CEAA had been contacted by representatives of the Prince Albert Grand Council and the MNS requesting information on the status of the EA for the proposed Caribou Project. At that time, CNSC staff responded that the EIS and the draft EASR would soon be

⁵ <http://www.nuclearsafety.gc.ca/eng/commission/pdf/2009-04-30-Decision-AREVA-McCleanLake-e-Edocs3397406.pdf>

available and provided to them directly. In late March 2009, the Saskatchewan Ministry of Environment provided copies of the final EIS and draft EASR for the Caribou Project to the First Nations and MNS for comment, and to explain the next steps in the regulatory process. The review period was held between April 2 and May 5, 2009. CNSC staff added that the EASR review period was also advertised in three daily newspapers (Prince Albert Daily Herald, Regina Leader Post, Saskatoon Star Phoenix) and in a weekly paper (La Ronge Northerner), and that it was also advertised on the Missinippe Broadcast News in Cree, Dene and English. CNSC staff reported that no comments were received from First Nations or Métis.

30. AREVA confirmed that regular community meetings have been held with the Northern Saskatchewan Environmental Quality Committee at La Ronge, and with 13 northern communities, including Black Lake, Fond du Lac, and Wollaston Lake, in 2007. AREVA noted that the presentations were available in both Cree and Dene, and those who participated were provided information about the regulatory process, including opportunities to comment on the EIS. AREVA reported in the EIS that few comments or concerns specific to the Caribou Project were raised, but mostly general questions about long term monitoring and decommissioning, regulatory requirements and cumulative effects.
31. The Commission was informed that, once the EASR review period was over, the Saskatchewan government, which led the EA, verified that all stakeholders were satisfied with the consultation process.
32. CNSC staff confirmed that Aboriginal people were consulted on the screening report and that no adverse impacts were identified, and that further opportunities for Aboriginal consultations would be made at the licensing stage if the project proceeds. CNSC staff considers that consultations of Aboriginal people were adequate, pursuant to subsection 18(3) of the CEEA.

Conclusion on Aboriginal Consultation Specific to the Caribou Project

33. Based on the information provided, the Commission is satisfied that the Aboriginal people interested in the Caribou Project were properly consulted and given adequate opportunity, for EA purposes, to express their views and concerns related to the proposed project.

Conclusions on the EASR

34. CNSC staff has reviewed all the information available for this project and concluded that the proposed EASR (see Attachment A) is complete and meets all requirements under subsection 16(1) of the CEEA, and that no significant adverse environmental effects are anticipated as a result of implementing the project, taking into account mitigation measures as outlined in Section 6 of the Proposed EASR.

35. The Commission acknowledges that the EIS has already been approved by the Saskatchewan Government in July 2009, and that it is appropriate for the Commission to render a decision on the EASR at this time.
36. CNSC staff recommends that a follow-up program be put in place for this project, as described in Section 9 of the proposed EASR.
37. The Commission concurs with the conclusions of the proposed EASR that the project is not likely to cause significant environmental adverse effects, taking into account the proposed mitigation measures.
38. The Commission agrees with CNSC staff's opinion that the project is not of a type requiring referral to the federal Minister of the Environment for referral to a review panel or mediator. Therefore, pursuant to paragraph 20(1)(c) of the CEAA, the Commission will not refer the Caribou Project to the federal Minister of the Environment for referral to a review panel or a mediator.
39. The Commission accepts the proposed EASR. With this decision, the Commission also requires that some clarifications be made to the EASR to enhance the understanding of the report and to emphasize elements that have to be integrated into the follow-up program.
40. The Commission may proceed, upon AREVA's application, with the consideration of the licence relating to this project under the NSCA, in accordance with paragraph 20(1)(a) of the CEAA.



Michael Binder
President,
Canadian Nuclear Safety Commission

APR 26 2010

Date