



Atomic Energy Control Board    Commission de contrôle de l'énergie atomique

Ottawa, Canada  
K1P 5S9

**Directorate of Fuel Cycle  
and Materials Regulation**

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March 24, 1998

22-U-21-1

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RECEIVED  
MAR 31 1998

**Subject:        Kiggavik/Sissons Project  
                      Conceptual Decommissioning Plan and Financial Assurance**

Dear Mr. Gitzel:

The Atomic Energy Control Board has reviewed the above-noted document with cover letter dated November 27, 1997. The AECB circulated the Plan for comment to the government agencies listed in the attached distribution list and received responses from DIAND, NIRB, and Environment Canada (Yellowknife). The combined comments of the responding agencies and the AECB are provided in the attachment to this letter. Cogema is requested to respond to these comments and to revise the *Conceptual Decommissioning Plan and Financial Assurance* where necessary by May 1, 1998.

Should you have any questions concerning these comments, please contact me at 975-6379, or Mr. R. McCabe, Head, Uranium Mines Section (975-6378).

Sincerely,

Peter Courtney  
Project Officer  
Uranium Facilities Division

Attach:

c.c.:    Distribution List  
          L. Quarshie, Cogema  
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## **Regulatory Agency<sup>1</sup> Comments on Cogema's Conceptual Decommissioning Plan and Financial Assurance Kiggavik/Sissons Project**

- 1) The Plan needs to assess the potential for soil contamination, in particular, around fuel and core storage areas and include provision for cleanup if necessary.
- 2) The Plan states that if salvageable materials exceed  $10^{-5}$  Bq/m<sup>2</sup>, that the material will not be removed but will be burned at the site. The plan does not state how the ashes will be disposed of. Although the quantity of ashes may be relatively small, they could represent an environmental risk on a localized basis because of potential leaching of radioactive elements. The ash should be treated as contaminated and removed from the site with the other radioactive material.
- 3) The Plan indicates that core with gamma readings exceeding  $35 \mu\text{R/hr}$  is considered to be mineralized and will be removed from site. This is a relatively stringent criterion that should assure that no core left on site will cause radioactive contamination problems later. With respect to the mineralized core that will be removed from site, Cogema is encouraged to at least preserve representative sections of this core. Cogema should contact Carolyn Relf, DIAND's regional geologist, at (867) 669-2635 to discuss this matter. AECB regulations require that material of this kind be stored at an AECB-licensed facility (such as the proposed Cluff Lake site).
- 4) The Plan mentions on page 3-2 a dump site 10 km east of the camp that the company has been using as a disposal site. How will this site be decommissioned and at what cost?
- 5) The Plan mentions on page 1-3 Land Use Permit #97C733 administered by DIAND and Inuit Land Use Permit Application #KE96PO70 administered by the Kivalliq Inuit Association. What, if any, conditions of these permits are there regarding decommissioning and reclamation of this land after Cogema is finished with its operation? Cogema is requested to send copies of these permits to the AECB for its records.
- 6) The Plan mentions on page 5-2 that the water pipes will be burned. Given on page 3-2 that these are HDPE pipe, burning is not a safe practice.
- 7) The Plan mentions on page 5-2 that there is no chance for artesian conditions to develop; therefore no holes will require grouting. Please clarify what this means in light of the artesian borehole identified as Jane2-14 that was reported in the 1995 *Annual Report*.
- 8) The Plan mentions on page 5-3 that a gamma survey will be done after decommissioning but prior to the removal of any mineralized core and drill cuttings. It makes sense that a

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<sup>1</sup>Atomic Energy Control Board (Saskatoon), Environment Canada (Yellowknife), Nunavut Impact Review Board, Indian and Northern Affairs Canada (Yellowknife).

gamma survey be done at this time so that any contaminated material can be identified and included with shipment of mineralized core and drill cuttings off site. However, the AECB will expect a follow-up gamma survey to be done after the core, cuttings and any contaminated material have been removed to confirm that all contamination has been removed. This is particularly relevant for areas where the core and cuttings were stored prior to being removed.

- 9) The map shown as Figure 2.1 seems to indicate that the Kiggavik property is within Nunavut and Sissons is not. Please identify what areas covered by the Plan are in Nunavut and what are in the NWT and what this might mean in terms of differences in decommissioning and reclamation requirements.