



Oral Presentation

Exposé oral

**Submission from
Val Drummond**

**Mémoire de
Val Drummond**

In the Matter of the

À l'égard d'

Orano Canada Inc. – Cluff Lake Project

Orano Canada Inc. – Projet de Cluff Lake

Application for the renewal of the Uranium
Mine Decommissioning Licence for the
Cluff Lake Project

Demande de renouvellement du permis
de déclasserement de la mine d'uranium de
Cluff Lake

Commission Public Hearing

Audience publique de la Commission

May 15, 2019

Le 15 mai 2019

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May 15, 2019

Submission to Canadian Nuclear Safety Commission Public Hearing, Ottawa, ON

RE: Orano Canada Request for Return of Funds for Cluff Lake

Please accept the following statement and request for action from former northern Saskatchewan resident Val Drummond:

As a former resident of Ile a la Crosse, SK, I have made several submissions to the CNSC, the government of Saskatchewan and Orano raising specific questions about the decommissioning of Cluff Lake Uranium Mine and Mill site which have not received an adequate response.

The CNSC statement that whatever Orano has done “meets our conditions for decommissioning” is unacceptable for the following reasons:

1. In the 1978 Cluff Lake Inquiry meetings, northern residents of Saskatchewan were assured that the land disturbed for the Cluff Lake Uranium Mine and Mill would be decommissioned in such a way to allow for northerners to continue their traditional activities **without harm**.
 - a. See Rodney Gardiner Submission (attached) for nine (9) reasons why the Cluff Lake site cannot be considered acceptable in terms of public and environmental safety.
2. I would definitely NOT swim or fish or make tea from Island Lake, as I am familiar with the history of Island Lake. The following statements quoted from the AREVA 2015 TID illustrate why leaving this lake open to public use is unethical:
 - a. “At the Island Lake outlet, radium showed an increasing trend. Radium 226 activity levels show an increasing trend in Island Lake over the 2006-2014 period.” (AREVA TID 2015)
 - b. “Radium-226 activity levels in northern pike and white sucker flesh and bone samples from 2014 were HIGHER than in 2009. (Island Lake AREVA TID 2015)
 - c. “At the Island Lake outlet, mean concentrations of molybdenum, selenium and uranium measured during the decommissioning and monitoring period REMAIN ABOVE PROVINCIAL and FEDERAL GUIDEINES for the protection of freshwater aquatic life.” (2015 AREVA TID)
3. According to SNC Lavalin, the choice for Cluff Lake’s decommissioning plan was “**based on a fairly thorough exercise**”. When dealing with harmful radioactive contaminants, the exercise needs to be **absolutely thorough**. Vague and non committal terms in such an assessment report do not inspire confidence that Cluff Lake site is in any way secure for any length of time, let alone FOREVER.

4. CNSC has permitted the Orano decommissioning efforts at Cluff Lake as “allowing for natural recovery”. According to the Cluff Lake Inquiry Final Report, the need for **enforcement** of decommissioning standards was repeated, given that radium 226 activity was expected to increase over the long term, and in fact, is increasing, even according to Orano. (see 2015 AREVA TID.)
5. We do not and cannot accept a work of decommissioning with less than 30% of the required covering for the TMA, relying on natural recovery while the water table has infiltrated the unbounded TMA. One site-specific objective which needs to be achieved for successful decommissioning to have been completed is the following:

“Reduction of net percolation rates through the TMA to levels that adequately restrict contaminant movement to groundwater....”

- a. **Orano Canada admits that the water table has penetrated 60% of the tailings area.**
 - b. **Groundwater flow is under sub-artesian or artesian pressures.**
 - c. **The pelitic sandstone unit which is relied upon to provide “low permeability to groundwater flow”, only underlies 2/3 of the TMA.**
 - d. **The TMA is bounded to the north-west by a regional fault structure.**
6. We read in the SNC Lavalin report and submission that “frost is of no concern to the integrity of the Cluff Lake TMA into the future.”
 - a. All elements for frost heaves exist at the Cluff Lake site, including (1) a source of water within the subsurface and (2) a soil or material (glacial till) with permeability and (3) water saturation during the freezing process.

Does the CNSC accept, in this northern location, that frost heave is irrelevant?

7. SNC Lavalin researcher Ayres states: “The TMA cover system **APPEARS TO BE** functioning **AS DESIGNED** as far as it pertains to **REDUCING** net percolation rates to **ACCEPTABLE LEVELS**. This opinion is based on measurements and assessments **COMPLETED BY OTHERS** as well as the author’s expertise in the mine waste cover system field. (Bolding and CAPS added for this submission)

This is far from an expression of scientific certainty and would not be accepted as proof in any other field. Why would we accept it when dealing with Contaminants of Concern which include radioactive contaminants in large quantities?

As I write this, concerned people are signing up as members of the “Cluff Lake Environmental Action Group” CLEAN. We do not accept the creation of a sacrificial downstream ecosystem to the north of Cluff Lake, regardless of how REMOTE or how little frequented BY THE GENERAL PUBLIC you believe it to be.

Submitted by
Val Drummond

Further to our submission:

We ask to be provided with the numbers from Canada North Environmental Services who in 2018 tested some vegetation growth from the top of the TMA. This is a test that several of us have asked to have completed by an independent agency. It of course relates to browse for animals. While CNES was willing to say that “the Contaminants of Concern in the TMA cover vegetation **ARE NOT** posing an **UNREASONABLE**(bolding added to this statement) risk to biological receptors”, we notice that the use of the **present tense** does not preclude risk into the future. As trees and shrubs, for example return to the area in the future, we will have a perfect transportation system via the roots of these plants, to the environment in general. As long as you are measuring predominantly grasses, at the moment, CNES sees no **UNREASONABLE** risk to biological receptors. These biological receptors could include birds, rodents, larger game animals, and people, into the long distant future.