
**SUBMISSION
OF OTTAWA RIVERKEEPER INC.
TO THE CANADIAN NUCLEAR SAFETY COMMISSION**

RE: Atomic Energy of Canada Limited financial guarantee for decommissioning AECL's Chalk River Laboratories, including the MAPLE Reactors and New Processing Facility

SUBMITTED TO CNSC: May 6, 2005

c/o Louise Levert, Secretariat
Canadian Nuclear Safety Commission
280 Slater St., P.O. Box 1046
Ottawa, Ontario K1P 5S9
Submitted via E-mail: interventions@cnsccsn.gc.ca

Ottawa Riverkeeper respectfully requests permission to make the following argument before the Canadian Nuclear Safety Commission (CNSC) on May 20, 2005 regarding the matter of a financial guarantee for decommissioning AECL's Chalk River Laboratories, including the MAPLE Reactors and New Processing Facility.

The evaluation of a financial guarantee must consider the nature of the financial guarantee as well as the adequacy of the plans in place to decommission Chalk River. Ottawa Riverkeeper believes there are serious inadequacies in the "Comprehensive Preliminary Decommissioning Plan for AECL's Chalk River Laboratories". In the absence of an acceptable plan we believe that the Commission cannot approve a financial guarantee for site decommissioning. Our concerns and recommendations are outlined in the following points:

1. **Lack of Information:** The scope of the contamination at the Chalk River site and the associated risks to human health and the aquatic environment are unclear. Ottawa Riverkeeper has grave concerns that good precautionary decisions can be made without complete information. The public's health and the ecological integrity of the Ottawa River are at stake; the public has a right to know the extent of the contamination. The public is waiting for a proper evaluation of the potential cumulative environmental effects from the Chalk River Site.

2. **Determining Priorities:** An independent risk assessment should be completed to properly evaluate the most urgent ways to spend money over the next 300 years with respect to decommissioning and site remediation. The ecological risk assessment should consider risks associated with all potential sources of pollution including the known radioactive plumes that are moving through groundwater and surface waters, contamination from old facilities that are slated for decommissioning and waste storage sites. We should not continue to evaluate environmental impacts at the Chalk River site in a piecemeal fashion. Ottawa Riverkeeper fears that billions of taxpayers' dollars could potentially be sunk into wasteful and ineffective remediation.
3. **Radioactive Waste Plumes:** Annual Derived Release Limits for discharges of radioactive wastes into the Ottawa River and its tributaries have been determined by the site operators without public consultation. The Decommissioning Plan documents a large number of radioactive waste plumes at the Chalk River Laboratories. Radioactive wastes are moving through groundwater and surface waters in uncontrolled fashion.

AECL has consistently avoided dealing directly with the contaminant plumes that are already in the river, and continues to block release of information that exposes the magnitude of the problem.

Our position, which we are certain would be shared by most members of the public, is that the use of Ottawa River and its tributaries for radioactive waste disposal is unacceptable. Ottawa Riverkeeper requests a transparent review of the annual Derived Release Limits that have been previously determined by the operators.

4. **Unknown Risks:** The decommissioning plan does not provide adequate detail about the handling of the wastes from the decommissioning projects. For example, where will the contaminated pool water be "disposed" of and where will the contaminated soils be stored? Are the risks associated with these decommissioning projects higher than the risks associated with the status quo? Without knowing the economic costs associated with the decommissioning and remediation projects, as well as the environmental costs associated with the status quo, how can we make educated decisions that will protect the public as well as our environment?
5. **Other Pollutants Ignored:** When evaluating wastes originating from the Chalk River Labs there is a continual emphasis on radionuclides. What the public doesn't know is that mercury, lead and persistent organic pollutants such as PCB's are a major concern and perhaps have higher risks associated with them than the radioactive wastes. We feel that these dangerous pollutants have been inadequately addressed by the AECL.
6. **Waste Disposal:** The Plan proposes construction of a shallow rock cavity for permanent waste disposal without any indication that this facility would effectively isolate radioactive and other harmful wastes from the aquatic environment. Ottawa Riverkeeper questions the process by which this

proposal was formulated. It seems to us that many of the problems at Chalk River are the result of buried wastes. Table D1 of the Plan, for example, mentions reactor fuel high-level wastes that have been put in “vertical, below-grade facilities” that are now “the subject of a remediation program”. Given these current problems, why is the AECL pursuing waste burial as a preferred option? The environmental and social acceptability of monitored, above-ground, retrievable storage is much higher than waste burial.

When planning “enabling and support” facilities for radioactive wastes generated during decommissioning activities, the highest priority should be given to keeping the river free from radioactive contamination. An independent and thorough environmental assessment and ecological risk assessment should be carried out prior to considering future underground disposal of wastes at the Chalk River Site, particularly given its proximity to the Ottawa River. Ottawa Riverkeeper advocates that a precautionary approach be taken and the public be made aware of the risks associated with the various alternatives.

We doubt that many members of the public are aware that high level wastes are already being put underground in Canada. There is currently an intensive effort by the Nuclear Waste Management Organization (NWMO) to determine the best method for dealing with nuclear fuel wastes. Other nuclear fuel wastes in Canada are either in fuel bays or in dry storage. Current practices at Chalk River appear to risk undermining the credibility of the work of the NWMO.

7. **Need for Pollution Prevention:** Ottawa Riverkeeper believes that high priority should be given to preventing further contamination at the Chalk River Site. We think the Plan does not adequately address pollution prevention. Given that AECL intends to maintain operations at Chalk River for the next 100 years, it is clearly important to make certain that these operations do not create an additional burden on future generations of decommissioning and site cleanup.

However, the Plan fails to describe how wastes from new facilities such as the MAPLE reactors and New Processing Facility will be managed to minimize future decommissioning liabilities. Even though these new facilities are specifically mentioned as being covered by the financial guarantee proposal, there is essentially no mention of them in the Plan.

8. **Potential Impact on the Environment is Unclear:** We find that the overall regulatory framework for assessing environmental impacts of the decommissioning activities is unclear in the current Plan. The section of the document entitled “Potential Impact on the Environment” is surprisingly brief, and seems to treat environmental impacts quite casually. For example, it states “Decommissioning of structures and features on the CRL site will have little negative impact on the natural environment, especially beyond the perimeter of the Supervised Area.” This assertion is unsupported by any evidence.

We would hope that the main intent of the Plan would be to maximize the positive impact of decommissioning on the environment, but it appears to lack any overarching objectives or targets in this regard. In fact, some options proposed in the Plan, such as underground disposal in a shallow rock cavity, could result in serious negative environmental impacts.

9. **Public Consultation and EA review:** Ottawa Riverkeeper strongly urges that the Decommissioning Plan be subjected to a full Panel Review under the Canadian Environmental Assessment Act. All potentially affected members of the public – including all Canadian taxpayers who are being asked to fund the decommissioning activities – should be given an opportunity to contribute their input to the decision-making process.

The public consultation plan in the Plan suggests that AECL will make its own determination on social acceptability of decommissioning projects, and only people living in the immediate vicinity of the Chalk River facility will be consulted periodically as the Plan is updated. We find this unacceptable.

We believe that it is important to give people living downriver a voice in determining the acceptability of different options for dealing with wastes at Chalk River. Ottawa Riverkeeper talks on a daily basis with individuals living around the Ottawa River from Mattawa to Montreal and consistently people have concerns about the Chalk River Site. A full environmental assessment of AECL's decommissioning plan for CRL must take place to protect the public interest and the environment.

Sincerely,



Meredith Brown, *Riverkeeper*