



**Written submission from
Cathy Vakil**

**Mémoire de
Cathy Vakil**

In the Matter of the

À l'égard des

Canadian Nuclear Laboratories (CNL)

Laboratoires Nucléaires Canadiens (LNC)

Application from the CNL to amend its Chalk River Laboratories site licence to authorize the construction of a near surface disposal facility

Demande des LNC visant à modifier le permis du site des Laboratoires de Chalk River pour autoriser la construction d'une installation de gestion des déchets près de la surface

**Commission Public Hearing
Part 2**

**Audience publique de la Commission
Partie 2**

May and June 2022

Mai et juin 2022

Intervention - May 31 Public Commission Hearing – Canadian Nuclear Laboratories Near Surface Disposal Facility

Submitted by: Dr. Cathy Vakil, Assistant Professor, Department of Family Medicine, Queen's University, Kingston, ON

I appreciate the opportunity to participate in this public hearing regarding the proposed Near Surface Disposal Facility at Chalk River. I am a retired family doctor and am very concerned about the direction our government is taking with regard to increasing nuclear capacity in Canada with respect to small modular nuclear reactors (SMNRs). Clearly, we have no solution to the disposal/management of the highly toxic long-lived radioactive waste we have already stockpiled, and no one worldwide has ever succeeded in this endeavour. We absolutely should not be adding to this accumulated toxic waste by introducing yet another generation of astronomically expensive, dangerous, waste-producing nuclear generators. Radiation, in any dose, is harmful to health and as a physician I feel obliged to speak out on this issue, in the form of this written intervention.

This intervention addresses the proposal of a multi-national consortium (SNC Lavalin, Fluor and Jacobs) to dump one million tonnes of radioactive and other hazardous waste next to the Ottawa River on the grounds of the Chalk River Laboratories. Opposition to this project includes the Assembly of First Nations and over 140 Quebec and Ontario municipalities. I join them in vehemently opposing this project.

This giant landfill site is located one kilometre from the Ottawa River, which is a drinking water source for almost two million people. It is also on a fault line making it earthquake prone. It is also tornado prone, and the bedrock is porous and fractured, making it extremely likely that the mound would leak toxic radioactive components that would easily make their way to the Ottawa River through local wetlands. Trying to manage and remediate the

giant leaking mound would be a huge cost to taxpayers, not to mention the deleterious effect it would have on their health, for generations to come.

Many of these hazardous chemicals are long-lived and even if they remained in place for decades, would pose a health threat to future generations for hundreds of thousands of years. These include plutonium (one of the most toxic substances known, and highly radioactive, used in nuclear bombs), radioactive strontium and carbon, and tritium which is radioactive water. It also includes cobalt-60 which is so radioactive that the International Atomic Energy Association (IAEA) says it should be buried underground. This international body says that only very low-level radioactive waste should be dealt with above ground and if Canada approves this toxic dump, it would be thwarting international regulations to which Canada is obliged as a member of the IAEA and as a signatory to the international nuclear waste treaty. This waste also includes 80 tonnes of uranium as well as many other heavy metals including arsenic, copper, iron, aluminum and mercury, and toxic chemicals such as dioxin, PCBs and asbestos.

As a physician, I feel obligated to speak out in opposition to this proposal. The healthcare system spends large amounts of taxpayers' money not only to diagnose and treat illness, but to prevent it. In an effort to please the nuclear industry, our government would be introducing risk of radiation-induced disease such as cancer, genetic damage, infertility, birth defects and chronic diseases to the millions of people living near or downstream from this proposed toxic dump. This is a health issue, and Canadians should not be subjected to such health risks to favour profits of the nuclear industry.

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