



**Written submission from
Karen Weingeist**

**Mémoire de
Karen Weingeist**

In the Matter of the

À l'égard de

**Cameco Corporation, McArthur River
Operation and Key Lake Operation**

**Cameco Corporation, établissements de
McArthur River et de Key Lake**

Application for the renewal of uranium
mine/mill licences for McArthur River
Operation and Key Lake Operation

Demande visant le renouvellement des permis
d'exploitation de mines et d'usines de
concentration d'uranium pour les
établissements de McArthur River et de
Key Lake

Commission Public Hearing

Audience publique de la Commission

June 7-8, 2023

7-8 juin 2023

Submission for the Cameco Corporations licence renewal hearings 2023 for Rabbit Lake Operation, Key Lake Operation & McArthur River Operation

Cameco has been asking for and receiving licences for increasingly long periods of time. But to then ask that their renewed licences be for an indefinite term is unconscionable.

How can it be that the Cameco Corporation asked for a renewal of their licences for an indefinite term? Really? Previous licences have been for 3 years, then 5 years and then most recently for 10 years, which was way longer than it should have been.

Then on April 20, 2021 and again on July 8, 2022 they asked for licences for indefinite licence terms. When you say indefinite term it is an incredible ask, but that is exactly what they did. Not once but twice.

Then interestingly on November 4, 2022 they revised their original request. Did they realize they had gone too far, way too far? So they requested that the licences for the Operations be renewed by the CNSC for only a 20-year licence term. 20 years, fully double the amount of time their previous licences were for. I suggest that they asked for the moon and settled for only 20 years. 20 years equals an entire generation before they would have to apply again. Do they not understand how every dangerous the minerals they pull out of the ground are?

Please see our attached handout: *POLLUTION FROM THE NUCLEAR FUEL CHAIN* and you will see that uranium mining is clearly not “emissions-free” or “clean” as Cameco promises in the Rabbit Lake Supplementary Information of CMD 23-117.1A

Our handout is based on several documents including *Nuclear Power in Canada: Questions & Answers* published by the Canadian Nuclear Association; *Nuclear Power In Canada: An Examination of the Risks* by the Pembina Institute; *Clearing the Air About Nuclear Power* from the Pembina Institute; and the list of pollutants in the handout came from the Canadian National Pollutant Release Inventory (NPRI) and the Canadian Nuclear Safety Commission (CNSC).

Next please see our handout on *RADIATION AND THE HUMAN BODY*. There are many problems associated with radioactive materials and their effects on people. Sources for this handout are: The International Commission on Radiation Protection (ICRP); United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR); Center for Disease Control, U.S. (CDC); and Biological Effects of Ionizing Radiation BEIR VII, 2006

Many thanks for this opportunity to share our take on what the Cameco Corporation is doing to the earth and why granting them increasingly longer and longer permits is a serious mistake.

Karen Weingeist

NUCLEAR ENERGY CAN **NOT** CLAIM TO BE "GREEN" ENERGY - HERE'S WHY ...

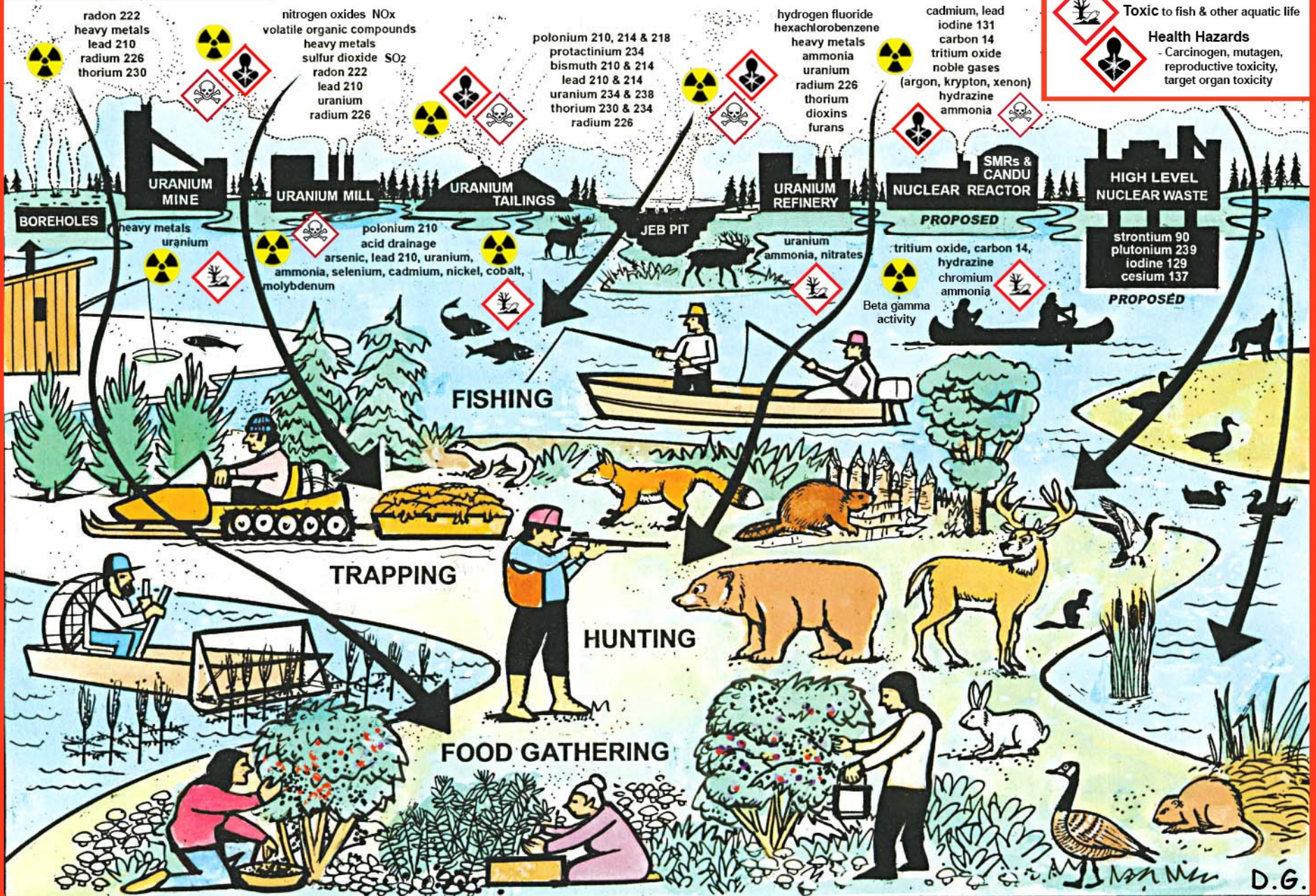
According to the Pembina Institute's *Clearing the Air About Nuclear Power* GHG emissions from the nuclear fuel-chain in Canada include "...a minimum of 840,000 tonnes CO₂ per year."

POLLUTION FROM THE NUCLEAR FUEL CHAIN

ROUTINE RELEASES OF CHEMICALS AND RADIOACTIVE PARTICLES, LIQUIDS AND GASES CONTAMINATE THE LAND, WATER, PLANTS, ANIMALS AND PEOPLE OF NORTHERN CANADA

KEY

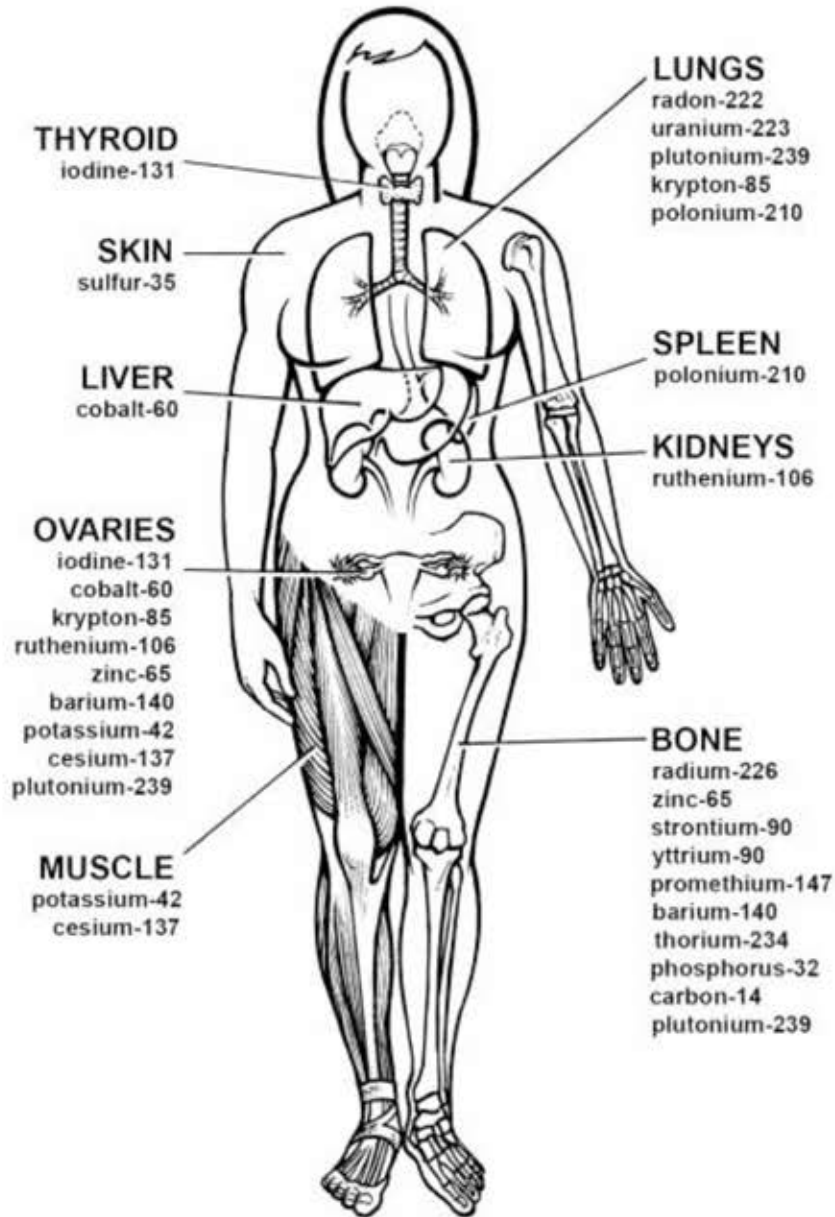
- Nuclear hazard - radiotoxicity
- Acute Toxicity
 - Arsenic, heavy metals, hydrazine, dioxins, furans, hexachlorobenzene
- Toxic to fish & other aquatic life
- Health Hazards
 - Carcinogen, mutagen, reproductive toxicity, target organ toxicity



sources: Nuclear Power In Canada: Questions & Answers, Canadian Nuclear Association & Nuclear Power In Canada: An Examination of Risks, Pembina Institute

graphic: Coalition for a Clean Saskatchewan design group www.cleangreensask.ca

RADIATION AND THE HUMAN BODY



Ionizing radiation can cause: cancer, leukemia and genetic damage - sometimes seen as birth defects or chronic disease.

Radiation can also cause: cardiovascular & renal disease, immune system damage, cataracts, sterility, premature aging, miscarriages, premature births & increased infant mortality.

All human organs and tissues are adversely affected by ionizing radiation to varying degrees. Different radioactive isotopes are attracted to different organs or tissues according to their chemical makeup (see diagram).

The common fission product strontium-90 acts like calcium and concentrates in bone, teeth and breast milk as calcium does. Radioactive iodine-131 is rapidly absorbed by the thyroid gland replacing normal iodine. Cesium-137 mimics potassium inside the body, seeking out muscle tissue.

Females are more radiosensitive than males. Girls 1 - 5 years old are twice as likely to suffer harm as boys. Fetuses are particularly sensitive to radiation during their early development, between weeks 2 and 18 of pregnancy (the first trimester).

Sources: International Commission on Radiation Protection (ICRP); United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR); Center for Disease Control, U.S. (CDC); Biological Effects of Ionizing Radiation BEIR VII, 2006

