

From: Sylvia Green-Guenette
Sent Date: Mon May 11 00:56:25 2026
To: Nuclear Waste / Déchets Nucléaires (IAAC/AEIC)
CC:
Subject: Radiation Protection Regulations and Need for Complete Revision

<email address removed>

Re: Project #88774
To the Impact Assessment Panel

I am a woman, mother, grandmother, great-grandmother, and concerned for myself and future generations of females as the proliferation of nuclear facilities continue to be subject to research and construction to produce nuclear energy and fuel for an excess of nuclear weaponry.

Radiation Health Protection Standards and Regulations

A deep concern is for the nuclear industry's structure of health standards regulations for all humans. The standards from the 1950s are not set for ALL humans. They are fashioned for what is known as Reference Man.

'Reference Man' was considered to be a young male (25-30 years), 5 ft. 7 in., 154 lbs., his environment 50-68 deg. F., Caucasian from Western Europe or North America. There was, and still is, no consideration for females, pregnant women, children.

In Canada, The CNSC is responsible for setting the standards for nuclear workers and the public. In 2023, the standard regulations were:

Nuclear Worker (male or female) no more than 50 mSv of radiation exposure in 1 year;
Nuclear Worker (male or female) maximum of 100 mSv of radiation exposure in 5 years
N W Pregnant woman (only if she has registered that she is pregnant) 4 mSv for remainder of pregnancy
Public person (unspecified) 1 mSv per year

This 'Reference Man' used by regulators for compliance evaluations does NOT include consideration for other species of life; does NOT include ALL humans. You are NOT included if you:

- work outdoors;
- have a kitchen garden or home milk or cheese production and consumption;
- home, other than stick-built;
- use unregulated drinking water (e.g. well);
- does not include any health outcome other than cancer;
- does not factor full-life cycle, including pregnancy, infants, children, elders;
- does not factor disproportionate harm to women and girls;
- does not include internal exposure from radioactive pollution in air, food, and water;
- does not consider additive or synergistic impacts;
- does not factor disease latencies correctly

It is well known by scientists and regulators from many studies that **there is no safe level of radiation exposure to humans. The minutest of exposure may result in harm to the human body.**

A regulatory model must protect and preserve life – meaning ALL life.

'Reference Girl' would not be perfect, but she would be better for assessing real-life impacts.

Ref: 1. *Generational Radioactive Impact Project (GRIP)*

Ref 2. *Beyond Nuclear* Nov 14, 2025 Cindy Folkers, Radiation and Health Hazard Specialist

Disproportionate Impacts of Radiation on the Human Body

The most well-known study and one of the only longitudinal studies of radiation effects on humans was started 5 years after the bombing of Hiroshima, with a span of 60 years. The findings are clear. Based on these reports of cancer:

- for every 2 men who died from cancer (within their lifetime), women with the same exposure as the men, 3 died.
- children were found to be five times as vulnerable as men, and the number of girls who developed cancer (within their lifetime) were shown to be double that for boys.
- infants (post-natal group) and girls from birth to age 5 are the most at risk.

Newer research has shown external harms to children and adults and female bodies and males. Standards should be strengthened to account for life-stage and gender disparities.

Radiation causes infertility, loss of pregnancy, birth complication and defects, solid tumor cancer, leukemia, non-cancer outcomes including cardiovascular disease, increased incidence of autoimmune disease.

Conclusion

There should be no nuclear waste moved from any of the nuclear facility sites until such time as revised standards and regulations are created and strictly enforced throughout the nuclear industry to reflect the real harm done to populations of all genders from exposure to radiation exposures, both external and internal.

Thank you for your consideration.

Sylvia Green-Guenette

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