February 21, 2022

Dear Mr. Scarpaleggia

I am writing to you in your role as Chairman of the Standing Committee on Environment and Sustainable Development, in connection with the current hearings on nuclear waste governance.

I was encouraged by your opening comments at the start of these hearings on February 3, when you said "We can now proceed to the nuclear study. It's our first study of the 44th Parliament. I would like to thank Ms. Pauzé for suggesting such a worthwhile study. This is an increasingly timely issue." I applaud your statement and I share your sentiments on the worthwhile nature of conducting a serious study on "nuclear waste governance".

However, I observed that some industry witnesses neglected to address any details of radioactive waste governance. They spent far more time talking about various aspects of nuclear power from a promotional or marketing perspective. In addition, some committee members spent their time questioning those witnesses on topics totally unrelated to nuclear waste governance, which is meant to be the sole focus of the study as clearly stated in the resolution proposed by Madame Pauzé and approved by the Committee.

In my view it is a regrettable waste of time and taxpayer's money, as well as a missed opportunity, if the limited time available to discuss nuclear waste governance is squandered in discussion of topics divorced from the subject of radioactive wastes.

The refurbishment of existing reactors, the marketing of radioactive isotopes, the prospect of small modular nuclear reactors, the challenges of climate change, are all interesting topics that deserve to be considered by the Committee in hearings devoted to those subjects. However they are not relevant to the subject of radioactive waste governance unless the witnesses and the committee members make the effort to establish the necessary linkage.

I request you, as chairman of the committee, to remind witnesses in future that they are expected to address the nuclear waste governance issues related to any other topic they choose to bring up, and to remind committee members to bear in mind that nuclear waste governance is the focus of these hearings.

For example, Mr. John Gorman at the outset referred to the multi-billion dollar refurbishment of Ontario's reactors, without mentioning the very large volumes of long-lived radioactive waste resulting from refurbishment. There is at present no government policy or strategy for dealing with these and other intermediate-level radioactive wastes in the very long term. You learned of this, Mr. Scarpallegia, in a 2016 letter from then Minister of Natural Resources Jim Carr, in which he wrote: "In short, Canada does not yet have a federal policy for the long-term management of non-fuel radioactive waste." Surely the committee should be made aware of this nuclear waste governance issue.

As another example, various witnesses talked about radioactive isotopes marketed from Canada without mentioning that they all end up as radioactive waste, and some – such as cobalt-60

sources as well as tritium sources used in self-illuminating lights – end up as nuclear wastes at Chalk River Ontario because, in contrast to other commodities that are exported, Canada allows the radioactive wastes to be imported back into Canada for permanent disposal. Again, this practice deserves to be noted and considered by any hearing on nuclear waste governance. Yet industry spokesmen have said not a word about any nuclear waste issues in this context.

Another witness said that molybdenum-99 is widely used around the world and will soon be produced at the Darlington nuclear power pant – again without reference to radioactive waste. In fact molybdenum-99 was produced routinely at Chalk River for decades, resulting in large quantities of highly radioactive liquid and solid wastes. The liquid was carried over public highways for four years in hundreds of truckloads, accompanied by armed guards. Those shipments were mislabelled as "highly enriched uranyl nitrate liquid" whereas the actual radioactivity level of the liquid cargo was 17,000 times greater than indicated. See my <u>letter</u> to then Minister of Transport Marc Garneau as well as the <u>letter</u> to Prime Minister Trudeau.

The industry spokesmen and consultants who spoke about isotopes before the committee did not discuss radioactive wastes at all. This avoidance of the main issue before the committee is alarming. It is certainly a disservice to the committee members who are trying for the very first time to address the question of nuclear waste governance in Canada, as well as to those members of the public who are following these hearings either online or through the video recordings and transcripts.

As a final example, mention was made several times of "small modular nuclear reactors" without any discussion whatsoever of the nuclear waste governance issues related to these conceptual reactors. All nuclear reactors create radioactive wastes of all categories – low level, intermediate level, and high level – but the nuclear wastes from these newly proposed reactors pose serious governance issues. There is at present no provision for long-term management of voluminous intermediate-level radioactive wastes resulting from the dismantling of the radioactive structures of decommissioned reactors. Moreover, the high level irradiated nuclear fuel from these proposed new reactors will have entirely different chemical and physical forms than the regular CANDU fuel bundles – for example, a much higher fissile content posing long-term criticality issues, as well as more corrosive and chemically reactive contaminants such as halide salts and metallic sodium, and new intermediate-level waste materials such as irradiated graphite. No attention has been given by the witnesses or by committee members to the legal authorization or the technical ability of NWMO to deal with these new and more problematic waste forms, and what governance issues might arise related to transport and packaging.

I presume that if and when the committee reports on these hearings, that it will contain relevant discussions on radioactive waste governance issues and ignore tangential testimony of a promotional nature that is not in any way linked to nuclear waste governance issues.

Yours truly,

Gordon Edwards.

Gordon Edwards, PhD, President,

Canadian Coalition	for Nuclear	Responsibility,
www.ccnr.org		

P.S. I am copying Madame Pauzé and the other members of the committee since time is short.
