Sante Enviro Health (SEH) Comments on IPD of Deep Geological Repository for Canada's Used Nuclear Fuel Project (DGR)

The Initial Project Description (IPD) for the Deep Geological Repository (DGR) for Canada's Used Nuclear Fuel Project, December 2025, has minimally addressed the impacts that the environment will have on their project. To a large degree these impacts are predominantly climate change related wildfires and floods. The impact of seismic events, although not purely climate change related, must also be considered.

Satellite imagery for the regional area of the Deep Geological Repository Project can provide an insight into the forest structure and potential for wildfire events at the site. Wildfires are very minimally addressed in the Deep Geological Repository IPD document. SEH considers that wildfire risk should be an integral component of this project.

Although the likelihood of such wildfire events occurring may be calculated as low, the impacts would be large and possibly catastrophic in the event that they occur. This risk must be addressed and SEH will present this aspect in its review.

Flooding risks are not addressed in the IPD and must be included. These elements would have severe consequences should a flooding event impact the project area. SEH questions the lack of information with regards to the actual risk of flooding potential to the footprint area of DGR.

Seismic risk is seemingly less of a climate change related risk. However, it should be considered in the light of the implication that should a seismic event occur, impacts of climate change may already be affecting a project on an ongoing basis, and the cumulative effects will undoubtedly increase the overall risk.

The DGR IPD mentions the word seismic only three times "seismic surveys" and "*Ongoing seismic monitoring and a Probabilistic Seismic Hazard Assessment are also planned*". Page 54 of 92 of IPD Summary.

The probability of seismic event occurrence, for example, what % in 50 years, isn't specified. Seismic-specific standards and building codes such as National Building Code of Canada 2020 should be considered. Performance-based seismic design principles could be used.

A definition of seismic hazard could be included. Local seismic hazard or reference to seismic zone classification based on the latest Canadian hazard models should be included.

Monitoring and response protocols, evacuation planning and field monitoring, essential for emergency preparedness, should be included.

According to the IPD, "*Currently, used nuclear fuel is safely stored at reactor sites across Canada. While these interim measures are effective, they are not permanent and require active management.*" Page 6 of 92 of IPD Summary.

One could argue that the DGR also needs active management. According to the goals of this project, that should be the objective, to *"eliminate the need for future generations to actively manage used nuclear fuel, thereby reducing long-term environmental risks and advancing intergenerational equity in managing Canada's nuclear legacy"* Page 7 of 92 of the IPD Summary.

The goal is to transfer all of the used nuclear waste form sites across Canada to the DGR. This gives the impression that future generations will not have to actively manage used nuclear fuel. However, the risk will still be there when nuclear waste will still have to be transferred to the DGR site for many decades into the future. The unpackaging of the spent nuclear fuel as it arrives at the DGR is one of high risk and this should be addressed.

Emergency preparedness and response plans in the event of a release of radioactive material must be included. As stated in the IPD, "*Smaller municipalities such as Sioux Lookout maintain functional but aging infrastructure, rely heavily on volunteer fire services, and face pressures related to wastewater capacity and mental health supports. Unincorporated communities, including Wabigoon, Melgund, and Dinorwic, depend on private water and wastewater systems and have minimal waste collection and emergency services*." Page 64 of 92 of IPD Summary

This is an aspect of emergency preparedness that should be of top priority. First responders need to be trained and all municipalities need to have training plans drawn up and executed over time in practice scenarios.

"If the NWMO is successful in obtaining impact assessment and initial licensing approvals, the Impact Assessment (IA) decision statement and the licence issued by the CNSC will include enforceable environmental protection requirements, such as, limits on radioactive and hazardous releases (e.g., water effluent and air emissions), obligations for environmental monitoring and emissions reporting, emergency preparedness and response plans.

The NWMO will also be required to implement an Environmental Protection Program that monitors performance, ensures compliance, and drives continuous improvement." Page 10 of 92 of IPD Summary

"*Surrounding communities have minimal waste collection and emergency services*." Page 64 of 92 of IPD Summary

As stated in the IPD the surrounding communities are not well prepared with emergency support.

When reviewing DGR, this large Canadian infrastructure project, the impacts of climate change on this project, particularly wildfires and flooding that may be affecting this project on an ongoing basis over time, must be considered in the overall assessment. A complete climate change risk assessment should be completed and presented before project approval. The lack of detailed information on emergency preparedness and response planning can be a potential weak spot in the process.

Sante Enviro Health (SEH) Montreal, February 4, 2026