The Inverhuron Committee
261 Victoria Street,
Tiverton, Ontario N0G 2T0

November 28, 2018

Canadian Nuclear Safety Commission
P.O. Box 1046, Station B
280 Slater Street
Ottawa, ON, Canada K1P 5S9

Dear Sir or Madam:

Re: Guidance on Deep Geologic Repository Site Characterization
REGDOC 1.2.1

Feedback

The Inverhuron Committee is responding to the above consultation with comments particularly on the site selection process, the requirement for quantitative data, the need for independent peer review and the importance of underground research.

Our group is made up of citizens who live in close proximity to the proposed deep geologic site for the burial of both low and intermediate level waste at the Bruce Nuclear Plant location.

We have been engaged, over the last 6 years, in the process for the approval of the above-mentioned project through Submissions to the Joint Review Panel Hearings and through Response documents on the various requests by the Minister of the Environment and Climate Change.

We have many serious concerns about the proposed Ontario Power Generation (OPG) project from many aspects, some of these, which are part of the Consultation Document 1.2.1 above.

We will highlight below a few reactions to the document regarding Site Characterization.

1.4 “the extent of consultation between the applicant and the regulator should be balanced in order to preserve the independence of the regulator….” Through our participation in the Joint Review Panels of 2013 and 2014, we perceived that the Canadian Nuclear Safety Commission was very supportive and vested in the proposal being discussed. The CNSC staff often answered questions on behalf of OPG and argued in their favour when questions were asked by Intervenors. Every day of the Joint Review Panel Hearing, the CNSC had the opportunity to present supportive information to the Panel. This process was, definitely, perceived as a bias to the situation. The CNSC should be present for clarification only. This perception on behalf of Intervenors was only heightened by the newspaper articles which appeared during the time of the Hearings wherein the President of the CNSC was discovered to be meeting behind closed doors with local Bruce County Councillors and indicated to them that he would see them at the ribbon-cutting ceremony. This is not only bad form on the part of the CNSC but in the Document up for Consultation REGDOC 1.2.1, it is very clear that an arms-length relationship is important to the process.

2.0 “characterization activities continue….to help confirm assumptions… and reduce any residual uncertainties in the safety case..” Throughout the Hearings and via documentation regarding the project sited at the Bruce Nuclear site, we, as Intervenors, felt a tremendous amount of uncertainty was present in those documents provided by OPG. There was a lot of mitigation cited and information yet to be confirmed. The word “reduce” in this phrase needs to be replaced by the word “eliminate”. As local citizens, we cannot take heart in plans that need mitigation, experimentation or reduction. All of the uncertainties need to be certain by the time that the site is characterized and presented at a Hearing or a Consultation with the public.

2.1 Not only should there be “the development of an overall plan for the site selection process” but also “site screening criteria should be developed for selecting or rejecting potential sites”. From the perspective of the public, the site selection process was very political. It was based on a willing-host concept with communities being heavily recompensed for their interest. This created a false impression of willingness. No referendum was held, as promised, for the deep geologic repository for low and intermediate-level waste. This type of selection targets communities suffering from pecuniary difficulty.

The site selection process needs to be very definitive, clear and without financial compensation.

In fact, it is the opinion of The Inverhuron Committee that the Federal Government should be the entity to develop a clear process for site selection. Of course, the other aspects of site selection can be delineated by the CNSC such as geomorphology and hydrology BUT the actual initial process must be guided by the Federal Government in conjunction with our closest neighbor, the United States.

2.2 Borehole Drilling

During our interactions with OPG and the CNSC, The Inverhuron Committee raised a concern that merely six boreholes were taken at the Bruce site. This project has a very large footprint and, therefore, boreholes need to be taken at every length, corner and at various depths. The deep geologic repository proposed at the Bruce site is the first of its kind in Canada and an overabundance of caution is required.

It was interesting to note that the search for a deep geologic repository site for the second of the proposed projects was cancelled in Saugeen Shores with the Nuclear Waste Management Organization citing that the geology was not suitable. This location is only 25 to 30 kilometres from the Bruce site. Part of the process for siting a deep geologic repository should be to present research and to document reasons why a studied site has been eliminated. This clarifies the rationale for the remaining locations.

3.1 The consultation document indicates the chosen site must have “characteristics favourable for sorption, precipitation and the mechanisms to limit containment release and transport away”. We would submit, at this point, that one of the site characteristics should, therefore, be that the proposed site be away from populations and away from waterways. The word “favourable” needs to be replaced by “to allow for safe sorption…”.

In addition, The Inverhuron Committee would firmly support that “quantitative data should be provided in addition to qualitative descriptions where possible”.

One of the Intervenors at the Joint Review Panel was a retired Nuclear Engineer from the Bruce Power Plant and he would have been able to provide quantitative date on the cylinders inside the tubing of the reactor but, instead, OPG used computer-based data for the information on cylinder wear. The gentleman indicated that his data did not support the computer-data which was developed. We would not only recommend that quantitative data be used whenever available, but also, that this data be gathered before a model is created. This recommendation links with Item 6.0 of the REGDOC 1.2.1 where an underground facility be created to test data and to collect important data before a project is finalized and proposed.

4.0 The Inverhuron Committee would like to add “fracking” to the list created under this Item.

5.3 This section on borehole quality assurance reaches back to Item 2.2 where we expressed a concern about the minimum number of boreholes drilled for the OPG project, considering its physical size, level of experimentation and lack of available quantitative data. We question whether there might be an International Standard on this type of activity?

6.0 “many geoscientific characteristics cannot be obtained from above-ground activities”. The recommendation under this item is that an underground research facility be built in order to test various characteristics in real time. The CNSC has not required OPG to build such a facility to test various scientific real data.

The Inverhuron Committee is pleased to see REGDOC 1.2.1 developed. We would like to have seen this document, as it is now presented, applied to the OPG project where some of the guidance was not put into action i.e. The underground facility.

We also hope that the Federal Government will step forward and create their own specific guidelines on the site selection process, which would eliminate the bias created to date on this project i.e. Financial compensation, political interference.

Kind regards,

(Mrs.) Marti McFadzean,

Chair, The Inverhuron Committee