

Response to Consultation on National Geologic Screening

In response to your letter dated September 11 2015 I would like to provide the following input.

As a general comment the document reads very well and should be possible to comprehend by a wider audience.

Question 1: To what extent do you think our proposed approach to providing national-scale existing information about geology relevant to long-term safety is appropriate?

The approach is generally sound and aimed at what can be considered achievable with existing information and the goal to provide a basis for discussions with communities.

Question 2: The proposed sources of information. It appears appropriate. However, I have no specific knowledge about the format and information content of the BGS material. Hence, I cannot provide any recommendation with respect to this question.

Question 3: The proposed form of the outputs? What additional outputs would you find useful?

Table 2 only mentions "distribution of suitable host rock types" as an attribute. The properties of "suitable host rock types" should also be included in Table 2 and § 3.13. Relevant host rock properties should be described in the narrative. Such a description of properties seems to be implied in § 3.33 and Table 3 but could be made clearer. In addition the attributes of the host rock to be considered and used to identify it as "suitable" could be more clearly spelled out.

Consider combined maps for certain attributes, e.g. rock type and major faults.

It is unclear how references to more detailed information will be made or shown in the presented output.

Question 4: Do you have any other views on the matters presented in the draft Guidance?

Groundwater, there is no mention on the importance of topography as a driving force for groundwater flow. This is also a parameter that has to be considered (in combination with permeability) in screening. This pertains to the discussion on groundwater and Table 3.

§ A2.8 Long groundwater paths. There has been a long discussion in Sweden on the merit of long return paths and potentially long transport times. The conclusion is that low permeability conditions near the waste containers make a significantly greater contribution to safety compared with long travel paths. It is also difficult to prove the existence and persistence of long travel paths compared to favorable rock conditions (permeability) in proximity to the waste containers. The merit of long travel paths need to be qualified in relation to low permeability host rock and topography as a driving force.

Name: **Olle Olsson**

Address: [REDACTED]

Telephone: [REDACTED]

Email: [REDACTED]