



# Improvement by public participation? The case of the German calculation basis for the dose assessment for final disposal of high-level waste (HLW)

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Received: 31 March 2023 – Accepted: 25 May 2023 – Published: 6 September 2023

**Abstract.** In April 2022, the Federal Office for the Safety of Nuclear Waste Management (BASE) invited the public to comment on the previously issued draft of the “Berechnungsgrundlage für die Dosisabschätzung bei der Endlagerung von hochradioaktiven Abfällen” (Calculation basis for dose assessment of the final disposal of high-level radioactive waste); 360 comments and suggestions were submitted, especially concerning radioecological modelling. In a table that was made publicly available, many of the issues raised were commented on, but not all of them. At the end of June 2022, an expert workshop was held at BASE, where a subset of the comments was also discussed. In December 2022, BASE issued the final version of the “Berechnungsgrundlage”, unfortunately without any further feedback on why changes were made or not. In the present contribution we will analyse this participation process, taking into account both the aspect of implementation and the radioecological models used.

Only a rather limited number of suggestions have been considered. To name a few, there has been no revision of the radioecological parameters that are being used in German administrative regulations and that have scarcely been updated within the past 40 years. Also, a proposed method for better estimating the retention times of radionuclides in soils with the help of distribution coefficients that have been tabulated by the IAEA but that can also be measured or calculated for special soils with the help of geochemical models was ignored. Still, the final version of the “Berechnungsgrundlage” assumes only three classes of retention times (10–8, 10–9, and 10–10 s) that do not appropriately reflect the behaviour of the individual radionuclides.

On the other hand, the proposal to consider an additional contamination path, namely the capillary transport of radionuclides from groundwater into the root zone, has been included.

In the workshop we would like to raise the question of whether and how this kind of process might be improved. Specifically, in view of the delay in site selection, the haste with which the project was completed should be discussed.

**Financial support.** This research has been supported by the Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz (grant no. BMWi 02E11849F).