

Analogue needs for TRU: output from a NUMO workshop

I. G. McKinley, F. B. Neall, D. Kawasaki, S. Suzuki & H. Ueda

NUMO is the organisation in Japan charged with implementation of deep geological disposal of “specified” waste, which includes certain long-lived wastes from reprocessing and MOX fuel fabrication termed “TRU” in Japan. Given that NUMO has initiated a repository siting process based on volunteering by potential host communities, this introduces special challenges for developing robust safety cases for this complex waste stream. NUMO has produced a background “level 3” technical report which summarises work so far on this waste, but recognises that there are many open questions involved.

In order to move forward, a workshop with invited national and international experts in this field was held in Tokyo in January 2011 with the aim of reviewing this report and identifying areas of consensus and key issues requiring further work. This workshop utilised an advanced knowledge engineering approach (argumentation modelling) to facilitate structuring of the input from the multidisciplinary participants. Interestingly, the resulting argumentation models highlighted many areas where analogues could play an important role. As this approach specifies requirements in terms of specific questions to be answered, it may be particularly useful for the analogue community, who have often identified poorly specified goals by end users as one of the problems with optimising analogue projects.

This presentation will outline the argumentation modelling approach and summarise the key analogue needs identified. If time is available, input from NAWG participants will be input to the TRU argumentation models in real time.