

Efforts in hydrogeology to build confidence in geologic disposal of HLW (High Level Radioactive Waste)

Masahiro Uchida[1]

[1] Waste Isolation Research Div., Tokai, JNC

Uncertainty analysis on the parameters of nuclides transport in geosphere was carried out within a "Second Progress Report on Research and Development for Geologic Disposal of High-Level Radioactive Waste in Japan" compiled by Japan Nuclear Cycle Development Institute. The results showed that the hydraulic parameters which relates to flux was most sensitive to the dose. This paper highlights recent efforts which could improve hydraulic gradient and transmissivity. Concerning gradient, fossil marine water could indicate stagnant flow regime. As to transmissivity, possible importance of connectivity of hydraulically active fractures are discussed. This paper also introduces recent efforts to enhance confidence of groundwater flow modeling by integrating with geochemistry.