

## **Study on the Procedure of Parameter Setting for Potential Effect of Natural Phenomena -Application to Volcanism-**

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JAEA developed a scenario construction method for the effects on a HLW disposal system condition and performance. This method is composed of the following five steps.

- step 1: Description of potential processes of natural phenomena
- step 2: Description of potential change of geological environment in the perspective of T-H-M-C: Thermal - Hydrological - Mechanical - Geochemical.
- step 3: Typification of scenarios based on similarity of the hang of geological environment.
- step 4: Set up models and parameters for impact analysis.
- step 5: Calculation and assessment

In the last year, we presented methodology of step 1 to 3 using examples of the application to Volcanism and Earthquakes and fault movement. In this time, we show the procedure of nuclide transport parameter setting (e.g. Matrix diffusion depth; Proportion of fracture surface from which nuclides can diffuse into the matrix; Effective diffusion coefficient; Distribution coefficient... etc.), using from information of T-H-M-C from investigations of Volcanism.