Problems of geological disposal based on the contaminated water issues at Fukushima Daiichi NPS

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The contaminated water issues at the Fukushima Daiichi Nuclear Power Station (NPS) have not been solved yet even after 8 years since the severe nuclear accident. Many countermeasures against the issues have been implemented, however, the groundwater bypass and frozen soil wall are not effective as expected. This is due to lack of investigations and understanding on the complex geology and hydrogeology at the site. Based on the experience, the author examined the Nationwide Map of Scientific Features for Geological Disposal published in July 2017 by the Ministry of Economy, Trade and Industry, Japan. The map does not show detailed information on groundwater and hydrogeology. The author presents crucial points for geological disposal from the viewpoints of hydrogeology and groundwater flow system.

Keywords: Fukushima Daiichi NPS, contaminated water issues, groundwater, geological disposal, Nationwide Map of Scientific Features for Geological Disposal