[H-CG29]Disposal of high-level radioactive waste: Viewpoints of science and engineering

convener:Daisuke Suetsugu (Department of Deep Earth Structure and Dynamics Research, Japan Agency for Marine-Earth Science and Technology), Kohta Juraku (Department of Humanities, Social and Health Sciences, School of Engineering, Tokyo Denki University), Satoshi Kaneshima (九州大学大学院理学研究院地球惑星科学部門, 共同), Takeshi Sagiya (Disaster Mitigation Research Center, Nagoya University)

Thu. May 24, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall 7, Makuhari Messe)

We have organized sessions in the JpGU meeting on nuclear power plants in Japan mainly from a viewpoint of earthquake science since 2013. Topics in the sessions include risks of nuclear power plants by earthquakes, volcanic activities, tsunamis, and a communication gap between scientists and engineers on the risks of the nuclear power plants. In the 2018 JpGU meeting, we propose the session that focuses mainly the disposal of high-level radioactive waste in Japan. This is an unavoidable issue in discussing future of the nuclear power plants and requires mutual discussion and understanding between scientists and engineers. Recently the Japanese government has published "Nationwide map of scientific features for geological disposal" and has planned to proceed "geological disposal" as the best disposal method. However, geological and social stabilities in a time scale of 100,000 years, which is critical in the disposal issue, are difficult to be assessed in Japan where crustal activity is high. We still consider that feasibility of the geological disposal in Japan is to be discussed and subjects in implementing geological disposal is to be clarified. We would like to promote discussions on issues such as how earth scientists can contribute to the disposal issue and a social decision making on the issue. We would encourage discussions from a broad viewpoint across science and engineering. We are welcome to papers of other topics relevant to relationship of earthquake science and nuclear power plants.

[HCG29-P03]Japanese geological disposal program

*Daisuke Suetsugu* (1. Department of Deep Earth Structure and Dynamics Research, Japan Agency for Marine-Earth Science and Technology)

Keywords: Disposal of high-level radioactive waste, geological disposal

Since R&D of geological disposal of high level radioactive waste was started in late 1970's, technical developments for the program has been conducted. Recently the Japanese government has published ‘Nationwide map of scientific features for geological disposal’ and has planned to proceed ‘geological disposal’ as the best disposal method. However, geological and social stabilities in a time scale of 100,000 years, which is critical in the disposal issue, are difficult to be assessed in Japan where crustal activity is high. In the presentation, the history of the program will be reviewed.