

## What I learned through the series of JPGU sessions about earth science and nuclear power plants

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In this poster I summarize the discussions that were made in the series of JPGU sessions focused on the relationship between nuclear power plants and earth science, and discuss about the issues associated with high level radioactive waste management. In the sessions held in the JPGU meeting during the last several years, we discussed about various earth science issues relevant to nuclear power plants, such as estimating strong seismic ground motions, evaluating activity of faults, forecasting of mega-thrust earthquakes at trenches, forecasting of tsunami and volcano eruptions. Through the presentations given by the experts of each issue and the following discussions, it was clearly recognized that earth science cannot provide with clear answers to many of the problems associated with the issues that the society needs to deal with. It was also clearly recognized that possible risks and benefits of nuclear power plants associated with these issues need to be discussed publicly in the places where people of many different fields and back grounds join. It was also clear that earth science community needs at least to enhance conversations with engineering people. We must discuss what earth scientists should do in the immediate future in order to address these requirements, either personally or as a community. As technical experts we must present our knowledge needed by the society, with its limitation and uncertainty clearly manifested. Based on this understanding I discuss in my poster about possible choices that we can take. Finally, with all of these points in mind, I also discuss about the issue of high level radioactive waste management, attempting to clarify features that it shares with the other issues as well as its uniqueness.

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