NES Colloquium

Thursday, 24 Nov 2016, 15:00 - 16:00, WHGA/001 Auditorium (PSI)

Fukushima Accident: off-site environmental remediation M. Mori (Gunma Uni) & T. Iuni (Kyoto Uni)

The Fukushima Daiichi Nuclear Power Plant accident has resulted in low-level contamination of the environment in wide area of the northern part of Japan. This colloquium consists of two short talks related to the off-site environmental remediation of contaminated soil.

1. Dynamic behaviors of radioactive cesium in soils, sediments, and aquatic organisms in Lake Onuma – M. Mori Concentrations of cesium greater than 500 Bq/kg were found in fish from Lake Onuma at the top of Mt. Akagi in August 2011. Monitoring studies have been conducted around Lake Onuma by measuring cesium concentrations in samples of fish, aquatic plants, plankton, lake water, lake sediments, and surrounding soil. It was found that the ratios of easy-elution forms of radioactive cesium increased by the rank in the food chain.

2. Geo-environmental issues for containment of radioactively polluted soil and waste generated in the affected area of Fukushima Accident – T. Inui

After the Fukushima accident, large amount of radioactively contaminated soil and waste materials from cleanup of areas destroyed by the earthquake and the related tsunami were collected. The talk presents laboratory experiments on the barrier system of planned surface disposal facilities for such materials. One important part of the disposal facility is a clay barrier that should ensure low water flux and acts as a geochemical barrier to prevent release of radionuclides.