

The Fukushima accident

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On Friday, 11 March 2011, the earthquake with a magnitude of 9.0 attacked wide area of north-east Japan, whose epicenter was approximately 160 km East of the city of Sendai in the Pacific Ocean and focal region was 200km x 500km. This magnitude is the fourth largest in the world after 1900. Tectonic plate shift to east-southeast direction was between 24 m and 50m and its elevation in height was from 3m to 7m. This incredible displacement caused a destructive tsunami which reached the coast of north-east Japan and flooded the adjacent large regions almost one hour later after the earthquake occurred.

Due to the seismic motion and tsunami attack, 5 sites of nuclear power plants, Higashidoori, Onagawa, Fukushima No.1 (Dai Ichi), Fukushima No.2 (Dai Ni) and Tokai-Mura was affected to lose some of their safety functions.

In my talk, it will be explained why four of the six nuclear power plants at Fukushima No.1 site went into the worst accidents while other plants were safely controlled. Also the present status of the plants at Fukushima No.1 site will be reported based on the latest information. Furthermore I will introduce recent activities of Japan Society of Mentenology to evaluate the effectiveness of short-term remedy for a large tsunami in all nuclear power plants except Fukushima No.1 and No2 sites ordered by Japanese regulator for nuclear plants, Nuclear and Industry Safety Agency (NISA).