Radiation in Food: Current Estimates of the Health Effects of Low-Dose Ionizing Radiation from Contaminated Food and Drink Caused by the Tokyo Electric Power Company Fukushima Daiichi Nuclear Power Plant Accident

On 11 March 2011, the magnitude 9.0 (Mw) earthquake and triggered powerful tsunami struck off the northeast coast of Japan. The ongoing INES (International Nuclear Event Scale) level 7 meltdowns at three reactors in the Fukushima Daiichi nuclear power plant complex are serious social problems due to radionuclide releases outside the crippled reactors. Provisional regulation values for radioactivities of contaminated radionuclides in food and drink were set on 17 March. Food and drink samples which exceed the provisional regulation value were detected in various parts of Japan. Here we discuss current estimates of the health effects of low-dose ionizing radiation from these contaminated food and drink.

Key words: radioactive contamination, nuclear power plant accident, radiation risk assessment, iodine-131, caesium-137