

Minister of Economy, Trade and Industry Mr. Motoo Hayashi
Chairman of the Nuclear Regulation Authority Mr. Shunichi Tanaka

Emergency statement to request a revision of projections of the magnitude of potential earthquakes and their effects on nuclear power plants, based on the Kumamoto earthquakes

We express our deepest condolences to those who have been affected by the series of earthquakes that have been hitting the region of Kyushu since the night of April 14. We sincerely wish for a speedy recovery and that the people in the affected areas be able to resume their ordinary lives as early as possible.

The earthquakes that shook the area of Kumamoto in Kumamoto Prefecture was the first quake to record “7” on the Japanese seismic intensity scale since the Great Eastern Japan Earthquake. Several active faults have also triggered 14 additional earthquakes of 5 or more on the intensity scale in the region of Khyushu to date (as of 6:00am, April 17), claiming even more victims.

We believe that the residents of Kyushu region are concerned about the effects of the earthquakes on nuclear power plants. Kyushu region is not only home to Sendai Nuclear Power Plant and Genkai Nuclear Power Plant of Kyushu Eletric Power Co. Inc, but is also located near Ikata Nuclear Power Plant of Shikoku Electric Power Inc. across the channel.

According to the analysis by the National Research Institute for Earth Science and Disaster Resilience, the initial quake in Kumamoto on the night of April 14 measured a Peak Ground Acceleration of 1,580 Gal, almost double that of the Great Hanshin Earthquake. The new regulatory requirements, formulated by the Nuclear Regulation Authority after the accident of TEPCO's Fukushima Daiichi nuclear reactor, stipulate that operators must design anti-seismic reactors in accordance with the expected maximum motion of quakes (Design Basic Earthquake Ground Motion – DBGM) that is set specifically for each plant. The DBGM at Kyushu Electric Power Co. Inc's Sendai Nuclear Power Plant is 620 Gal.

In contrast, Mr. Katsuhiko Ishibashi, Seismologist and Professor Emeritus at Kobe Unversity, points out “Sendai Power Plant's DBGM of 620 Gal is the expected maximum acceleration speed reached directly above the epicenter of a magnitude 6.1 unknown depth. However, large-scale earthquakes of magnitude 7 can occur even without the presence of active faults, therefore this figure is obviously an underestimate. Niigata Chuetsu offshore earthquake in 2007 (at magnitude 6.8) measured 1,699 Gal at the bedrock of TEPCO's Kashiwazaki Kariwa Daiichi Nuclear Power Plant. Considering the expected earthquakes and inaccuracy of ground seismic motion calculation, a minimum of around 1699 Gal should be set as the DBGM.”

The series of earthquakes at Kyushu is occurring not only in the region of Kumamoto but triggering seismic movements in adjacent Oita area, and it is said that such chain movements were even beyond the expectation of experts from Japan Meteorological Agency.

The lesson learned from the accident of TEPCO's Fukushima Daiichi Nuclear Power Plant and the Great Eastern Japan Earthquake was that such an accident could not be excused by saying that it was “beyond our expectation”.

Having witnessed the scale of damages caused by Kumamoto earthquakes, we request that the Nuclear Regulation Authority and all electric power companies revise the predicted scale and effects of possible earthquakes based on the knowledge of experts.

Considering the high likelihood of “complex disasters” resulting from a combination of nuclear disasters, earthquakes and tsunamis, we also strongly demand that the government of Japan formulate “a state-led detailed and visible emergency plan” as stated by the provisional injunction by the Otsu District Court that ordered Kansai Electric Power Co. to suspend operations of Takahama nuclear reactors No. 3 and 4.

17 April, 2016
Imari City, Saga Prefecture
Participants of the General Assembly of Mayors for a Nuclear Power Free Japan