

Earthquake Effects at Kashiwazaki Kariwa NPS Deemed “Out of Scale” or “Level 0-”

On November 13, the Nuclear and Industrial Safety Agency (NISA) released the results of its evaluation of ten recent events at domestic nuclear power plants (NPPs) according to the International Nuclear Event Scale (INES). Among them, all the four cases that involved damage at the Kashiwazaki Kariwa NPS by the Niigata-Chuetsu Offshore Earthquake of July 16 were judged either “out of scale” or “Level 0-” -- that is to say, they represented events without any safety significance.

NISA recognized four situations as having been caused by the earthquake: (1) a fire at a transformer at Unit 3; (2) damage to the joint section of an overhead crane at Unit 6; (3) leakage of water containing radioactive material in a non-controlled area of the reactor building at Unit 6; and (4) inundation of the operating floors of the reactor buildings at all units. As for the first two events, NISA judged them to be “out of scale,” meaning that there was no safety relevance to the reactor facility. The latter two events were given an evaluation of “Level 0-,” meaning that safety was not impinged upon.

As regards event (1), the fire at the Unit 3 transformer, NISA said, “After the earthquake, insulating oil in the transformer leaked, and was ignited by a ground-fault short circuit, resulting in the fire at the transformer. There was, however, no safety relevance to the nuclear reactor facility.” The case was thus determined to be “out of scale.”

As for event (2), the damage to a crane joint at Unit 6, NISA concluded, “The joint section of the overhead crane in the reactor building was damaged by the earthquake while not in use. There was, however, no safety relevance to the nuclear reactor facility.” It also deemed this event “out of scale.”

Meanwhile, for event (3), the radioactive water leakage at Unit 6, NISA proclaimed, “Water containing radioactive material sloshed out of the spent fuel pool onto the operating floor of the reactor building and was released to the sea via conduits, etc. The amount of radioactivity released, however, was very small.” The event was therefore judged to have been “Level 0-” or “below scale,” with no safety significance to the nuclear reactor facility.

Lastly, for event (4), NISA stated, “Water containing radioactive material from the spent fuel pool inundated the operating floors in non-controlled areas of the reactor buildings, but there is no safety relevance to the nuclear reactor facilities.” It thus determined that case to be Level 0-, or “out of scale.”

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