

IAEA Highly Evaluates Safety at Kashiwazaki Kariwa NPS

On August 17, following the issuance of a press release three days earlier, the International Atomic Energy Agency (IAEA) released a 48-page report by its group of experts that investigated the effects of the July 16 Niigata-Chuetsu Offshore Earthquake on Kashiwazaki-Kariwa NPS of the Tokyo Electric Power Co. (TEPCO).

In the report, entitled "Preliminary Findings and Lessons Learned from the 16 July 2007 Earthquake at Kashiwazaki-Kariwa NPP," the IAEA team said that although the earthquake had significantly exceeded the level of seismic input taken into account in the design of the plant, "the automatic shutdown of the reactors of Units 3, 4 and 7, which were at full power, and of the reactor of Unit 2, which was in a start-up state, were performed successfully."



Director Jamet said that the team enjoyed local *sushi* – emphasizing their confidence that there were no adverse effects from the leakage of radioactive materials.

Based on observations of external appearance and other factors, the report states that "safety-related structures, systems and components of the plant seem to be much better than might be expected for such a strong earthquake." It goes on to explain that "this is probably due to the conservatism introduced at different stages of the design process: the so-called 'design safety margins.'"

Detailed investigations, however, have not been conducted of major pieces of equipment such as reactor pressure vessels or fuel. The report does mention that non-safety related structures, systems and components suffered significant damage, such as soil and anchorage failures and oil leakages.

Suggesting that a reevaluation of seismic safety should be conducted, taking into account the lessons learned from the earthquake and using updated criteria and methods, the report points out that the issue of the potential existence of active faults should be addressed.

Another consideration is the possibility that the long-term operation of various components could be affected by latent damage from the earthquake. The IAEA report thus notes that the potential connection between large seismic events and accelerated ageing may be an important topic for consideration in future inspection programs.

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