

TEPCO Reports on Active Fault in Sea off Kashiwazaki

On December 5, the Nuclear and Industrial Safety Agency (NISA) announced that it would conduct acoustic explorations through the end of the current fiscal year (i.e., by March 31, 2008) in the sea in the vicinity of nuclear power facilities.

That was explained at two working groups of the working committee on seismic structural design -- one on earthquakes and tsunamis, and the other geological features and ground -- that have been considering matters related to the Niigata Chuetsu Offshore Earthquake. All the working groups and working committee fall under the Subcommittee on Nuclear and Industrial Safety, which itself falls under the Advisory Committee for Natural Resources and Energy.

At the two meetings, representatives from the Tokyo Electric Power Co. (TEPCO) also gave a provisional report on the status of investigations in the sea near the Kashiwazaki Kariwa NPS in the wake of the earthquake, saying that an active fault about 20km long was reconfirmed to lie 18.5km from the NPS premises.

In light of the earthquake, and from the viewpoint of rigidly inspecting seismic safety at nuclear power plants (NPPs), NISA will carry out acoustic explorations in the sea near nuclear facilities in addition to the investigations being conducted by the power utilities. As for the Kashiwazaki Kariwa NPS, an acoustic exploration will be implemented within the current fiscal year in an area of about 500 m², 3-4km from the coastline, including an area where an investigation was undertaken by TEPCO. At other nuclear power plants, taking into account the progress of seismic back-checks, results of fault assessments to date, meteorological conditions, etc., NISA wants to start explorations by March 31, 2008. The obtained data will be used in seismic safety evaluations at the Kashiwazaki Kariwa NPS, as well as and for the cross-checking of seismic back-checks at other NPPs.

Meanwhile, TEPCO's investigation into the sea near the Kashiwazaki Kariwa NPS confirmed that the "F-B Fault" is an active fault. In contrast, the evaluation of faults in the sea area, which had taken place when the applications for permission to install reactors for Units 6 and 7 were filed, had concluded it was not active. But in 2003, TEPCO conducted another investigation to consider the relationship between geological "folds" and the fault, and concluded that the fault was likely active. According to the knowledge and available information at that time, however, it was believed that no earthquake would occur beyond the standard ground acceleration. The relationship between the "F-B Fault" and the seismic fault in that instance has not yet been determined.

TEPCO is continuing its evaluation of the active faults, estimating the structure of the deeper parts, and considering their continuity. Based on those results, it will then determine a model of seismic sources, and evaluate ground acceleration.

Editor: Noriyuki Ishii, JAIF