

Continuous scientific/technical knowledge collection on earthquake-proof safety of nuclear power plants and efforts on improvement of assessment

Under the “Continuous scientific/technical knowledge collection on earthquake-proof safety of nuclear power plants and efforts on improvement of assessment” instructed on May 8, 2009 by NISA, we report our efforts as follows.

We are taking emergency countermeasures as reflection of collected knowledge by the Tohoku-Chihou-Taiheiyu-Okai Earthquake on March 11, 2011. Information to be revealed will be organized and explored, and we will take instructive information into account.

1. New knowledge collection on earthquake-proof safety

(1) Time period and subjects of data collection

Time period: April 1, 2010 – March 31, 2011

Subjects: Reports issued by national authorities, technical papers and conference papers, printed publications and overseas information. (These are abbreviated to “information”.)

(Attachment - 1)

(2) A method for organizing information

The potential information on earthquake-proof safety of nuclear power plants was extracted from the collected information, and was organized according to “Flowchart for organizing information related to earthquake-proof of nuclear plants”

(Attachment - 2)

2. New knowledge on earthquake-proof safety based on instructions by NISA

(1) Classification of information

a. Common information and inherent information

Information selected as further investigation is classified into common information for nuclear power plant operators (“common information”), inherent information for each site and area (“inherent information”).

b. Classification by screening

The followings show classification of the Information selected as further investigation in perspective of range and conditions of application to equipment for nuclear power station, and necessity of reflection for earthquake-proof safety.

① New knowledge to be reflected (reportable item)

The information, which matches the range and conditions of application considering conditions of nuclear power stations in Japan, needs to be reflected in assessment of earthquake-proof safety and margin of earthquake-proof, and is concluded as a reportable item according to the NISA's instruction. It involves accumulated new knowledge such as objective evidence and associated data.

② Other knowledge (unreportable item)

- This involves new knowledge such as objective evidence and associated data, but it doesn't make us review the earthquake-proof safety (No review of current assessment is necessary.)
- The potential information for improvement of the earthquake-proof safety and margin of earthquake-proof depending on further research

(2) Data arrangement

The information about knowledge not related to the Tohoku-Chihou-Taiheiyu-Oki Earthquake was organized as follows:

a. Common information

As a result of discussion between the nuclear power plant operators on the common information, we assessed that there was no "New knowledge to be reflected" involved.

b. Inherent information

As a result of assessment of the inherent information by TEPCO, we concluded that there was no "New knowledge to be reflected" involved.

The details on the data collection and screening result will be reported.

Attachment – 1 Subjects of data collection on earthquake safety

Attachment – 2 Flowchart for organizing information related to earthquake-proof of nuclear plants