

Implementation of Geological and Ground Surveys at the Fukushima Daiichi and Daini Nuclear Power Stations following the Niigata-Chuetsu-Oki Earthquake

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 Fukushima Daiichi Nuclear Power Station
 Fukushima Daini Nuclear Power Station
 Tokyo Electric Power Company, Incorporated

Following the occurrence of the Niigata-Chuetsu-Oki Earthquake on July 16, 2007, The Tokyo Electric Power Company, Incorporated (TEPCO) has decided to conduct geological surveys at the Fukushima Daiichi and Daini Nuclear Power Stations in a bid to supplement geological surveys conducted in the past and to enhance our knowledge. We will implement parts of the survey in the nuclear power stations premises and a part of an adjoining land area in the following manner. TEPCO plans to start conducting the planned subsurface exploration in a land area adjoining the nuclear power stations and maritime sonic prospecting in an adjoining water area as soon as preparatory arrangements are finished.

1. Outlines of the survey

(1) Geological and ground surveys within the nuclear power stations premises

- TEPCO will conduct boring surveys, groundwater level observation, and ground properties profiling in order to investigate soil characteristics, and to reflect the results on the assessment of shallow subsurface area stability against earthquake in backfills and other parts (sinkage and liquefaction, etc.)
- In order to compare the results with the planned subsurface exploration and maritime sonic prospecting, deep boring will be conducted on the nuclear power stations premise for investigation of soil characteristic distributions.

(2) Geological surveys in the land area adjoining the nuclear power stations

- An onsite subsurface exploration survey in the land area, including the Futaba fault, will be conducted.
- An onsite survey will be implemented for a boring survey in the south side of the Futaba fault.
- In order to expand the geological surveys conducted in the past regarding the northern extension area of the Futaba fault from Soma City and to obtain basic data for seismic safety assessment, geological surveys of the ground surface conducted from June, 2007 will be continued.

2. Survey methods

(1) Boring survey:

Soil and rock that consists the ground will be progressively sampled as a rod-like core. The sample will be observed in order to determine soil characteristics.

(2) Groundwater level observation:

An observation well will be drilled for a survey of groundwater level distribution.

(3) Ground properties profiling:

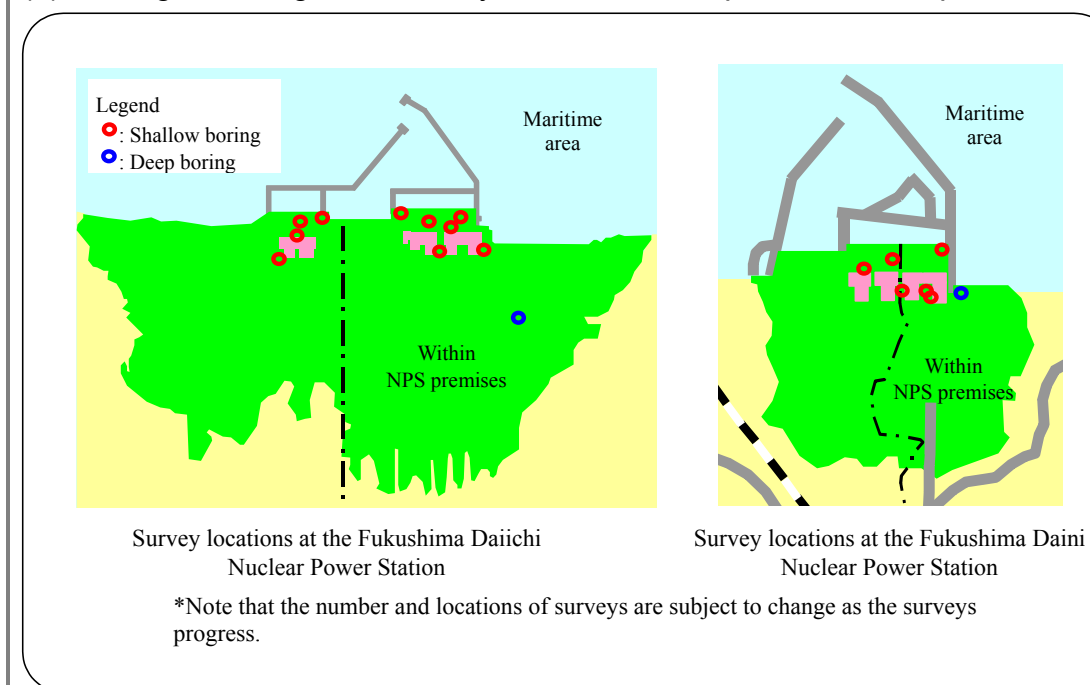
Recovered samples will be pressured and deformed in laboratory to assess ground strength and hardness.

(4) Survey of soil characteristics on the ground surface:

Locations in which stratal structure can be observed on the ground, such as outcrops, will be observed to investigate soil characteristics.

3. Survey locations

(1) Geological and ground surveys within nuclear power stations premises



		Fukushima Daiichi Nuclear Power Station	Fukushima Daini Nuclear Power Station
Boring survey	Shallow boring	Approx. 13 locations One to two holes per location Depth: about 10-20m	Approx. 8 locations One to two holes per location Depth: about 10-20m
	Deep boring	One hole Depth: about 1,000m	One hole Depth: about 1,000m
Groundwater level observation		Conducted in shallow boring holes Approx. 13 locations	Conducted in shallow boring holes Approx. 8 locations

4. Survey period (schedule)

Survey item	2007		2008				
	November	December	January	February	March	April	May
(1) Geological and ground surveys within nuclear power stations premises							
Boring survey	Shallow boring	██████████					
	Deep boring		██████████	██████████	██████████	██████████	██████████
Groundwater level observation		██████████					
(2) Geological survey in a land area adjoining the nuclear power stations							
		██████████	██████████	██████████	██████████		

(2) Geological survey in a land area adjoining the nuclear power stations

(3) Onsite as well as ground surface soil characteristic surveys will be conducted at the locations in the map below.

