September 13, 2007
The Tokyo Electric Power Company, Inc.
Kashiwazaki Kariwa Nuclear Power Station

Geological Survey (in Land Area) Made at the Kashiwazaki Kariwa Nuclear Power Station after the Occurrence of Niigata-Chuetsu-Oki Earthquake

1. Objectives

Following the occurrence of Niigata-Chuetsu-Oki Earthquake on July 16, 2007, the Tokyo Electric Power Company, Inc. (TEPCO) decided to make a subsurface exploration at the site of Kashiwazaki Kariwa Nuclear Power Station (NPS) and its adjoining area by expanding the scope of the geological survey for seismic safety assessment which had been conducted since last year to appropriately reflect the knowledge obtained through this earthquake in its evaluation of earthquake safety at the Nuclear Power Station. This subsurface exploration will cover the extensive land area encompassing the Nagaoka Plain Western Rim Fault Zone in addition to the immediate land area adjoining the NPS, and active faults in the area will be checked and evaluated again by understanding the underground geological structures through the subsurface exploration, etc.

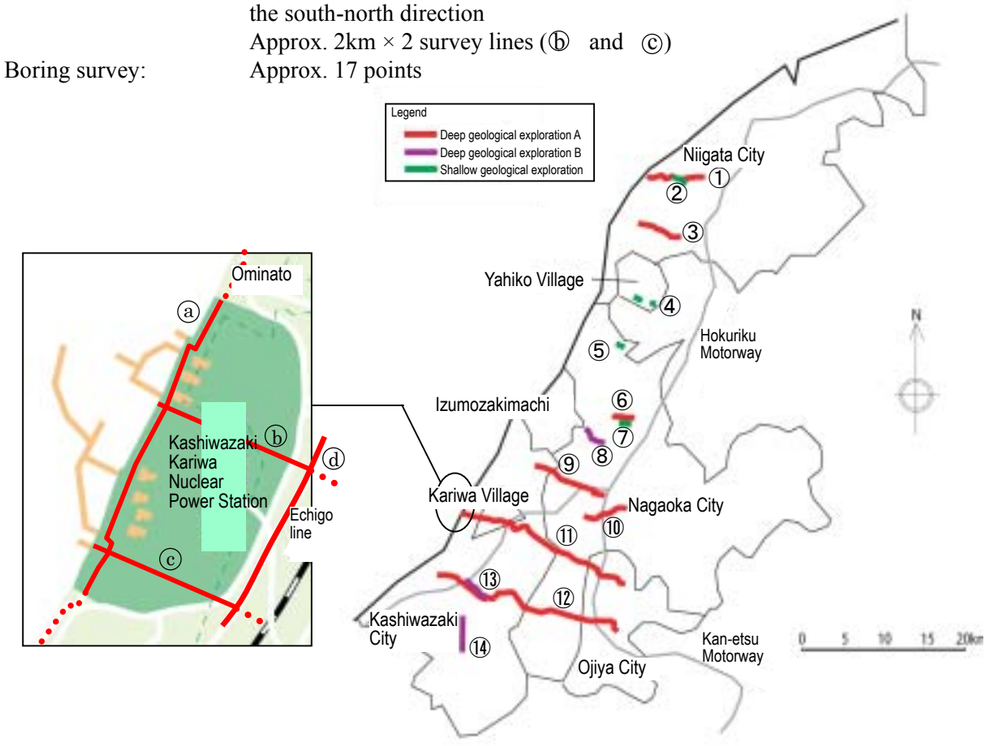
Boring and other surveys will also be performed at the NPS site to compare the results of the subsurface exploration with those of the geological survey. Boring surveys as well as the physical testing of samples collected from the bedrocks under the foundations of the reactor facilities after the earthquake also will be conducted in the NPS site to appropriately reflect the knowledge obtained from the physical characteristics of the bedrocks in the seismic safety assessment of the NPS.

We plan to conduct additional boring and other surveys in the NPS site in order to check the properties of the ground there and evaluate the land subsidence and soil liquefaction risks, and we'll set about these surveys as soon as the preparatory arrangements for them are completed.

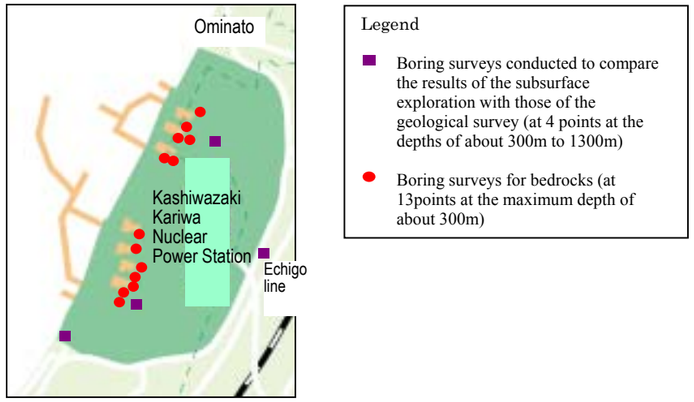
2. Locations of surveys

(1) Area around the NPS
Subsurface exploration: The land area from the north part of Niigata Prefecture through the area around the NPS with 14 survey lines at the total length of about 100km

(2) The NPS site and its adjoining area
Subsurface exploration: Approx. 3km × 1 survey line (ⓐ) and approx. 2km × 1 survey line (ⓓ) in the south-north direction
Approx. 2km × 2 survey lines (ⓑ and ⓒ)
Boring survey: Approx. 17 points



Survey lines (projected) for subsurface exploration



Boring Points

3. Periods of surveys

Geological Survey Schedule (Draft)

The process is for the days when an earthquake simulation vehicle is operating.

Location of survey			Survey method	Sept. 10	Sept. 20	Sept. 30	Oct. 10	Oct. 20	Oct. 30	Nov.	Dec.	Jan.	Feb.	Mar.
NPS site and its adjoining area	a	Kariwa Village, Kashiwazaki City	Deep geological exploration A Earthquake simulation vehicle A × 2 units			■								
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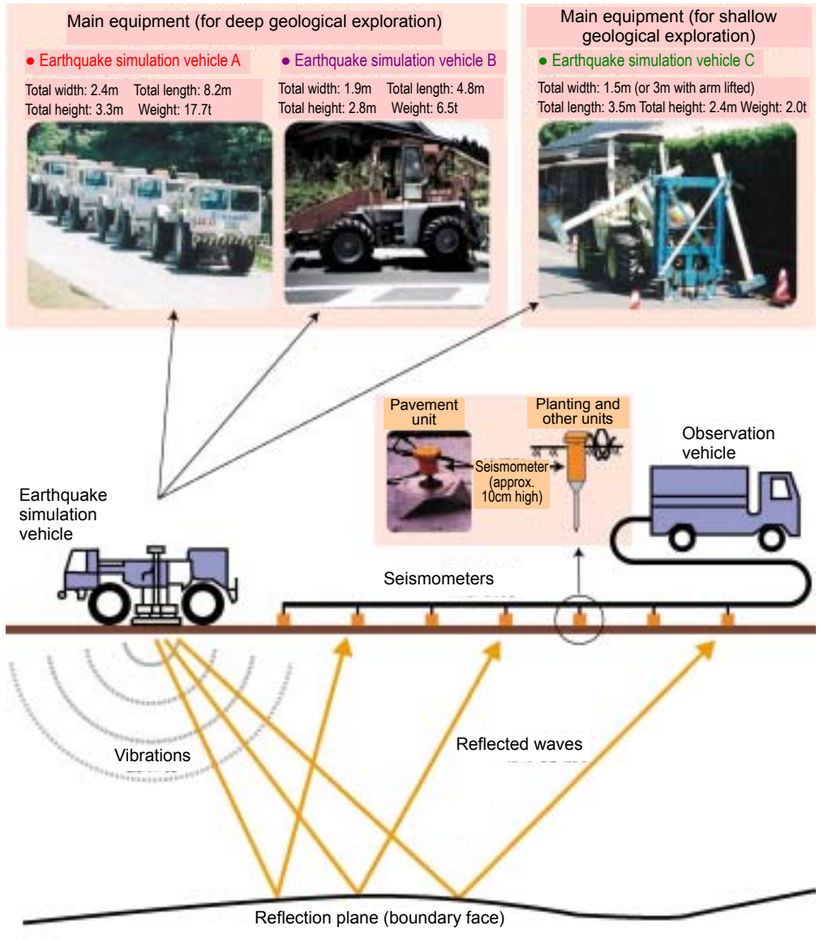
Survey of land area around the NPS	①	Nishiura-ku, Niigata City	Deep geological exploration A Earthquake simulation vehicle A × 4 units			■								
	③	Nishiura-ku, Niigata City	Deep geological exploration A Earthquake simulation vehicle A × 4 units			■								
	⑥	Nagaoka City	Deep geological exploration A Earthquake simulation vehicle A × 1 unit				■							
	⑩	Nagaoka City	Deep geological exploration A Earthquake simulation vehicle A × 1 unit				■	■						
	Other survey lines	Ojiya City; Kashiwazaki City; Kariwa Village; Nagaoka City; Yahiko Village	Earthquake simulation vehicle A Earthquake simulation vehicle B Earthquake simulation vehicle C					▯▯▯▯▯	▯▯▯▯▯	▯▯▯▯▯	▯▯▯▯▯	▯▯▯▯▯	▯▯▯▯▯	▯▯▯▯▯
Boring survey						■	■	■	■	■	■	■	■	■

* The Survey schedule may be changed depending on the results of the consultations with the organizations concerned and others.

4. Survey methods

(1) Subsurface exploration

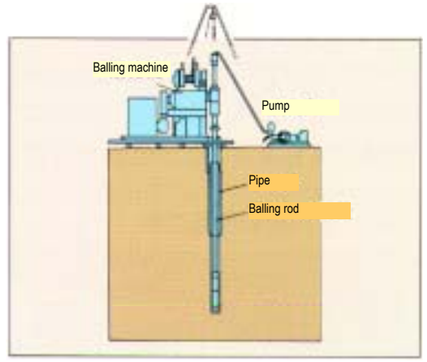
The subsurface exploration is a survey technique in which an earthquake simulation vehicle is used to give small vibrations to the ground (or road) and determine their ways of propagation by means of small seismometers placed on the edges (or shoulders) of the road in order to evaluate the underground geological structures. In this time, we'll make the "deep geological exploration A" up to the maximum depth of about 4km by using plural earthquake simulation vehicles A, the "deep geological exploration B" up to the maximum depth of about 500m by using plural earthquake simulation vehicles B, and the "shallow geological exploration C" up to the maximum depth of about 100m by using plural earthquake simulation vehicles C. These earthquake simulation vehicles will move on the road in turn to make measurements in the projected sections of the road.



Principle of earthquake exploration by reflection method

(2) Boring survey

Samples as rod type cores are continuously collected from bedrocks and observed to evaluate their geological characteristics.



Schematic View of Boring Survey

(3) Physical testing on bedrocks

The samples collected by boring surveys from bedrocks are tested in strength and hardness by using various methods such as giving stresses to them and transforming them