In-core Inspection of Kashiwazaki-Kariwa NPS

The Tokyo Electric Power Company, Inc.
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Outline of Visual Inspection for Reactor Vessel Internals

Inspection Policy

- Begin inspect from unit 1, which had its reactor pressure vessel head opened for refueling at the time of the earthquake, followed by unit 7, which is a different reactor type from unit1.
- Check for damages, significant deformation, and abnormalities in mechanical joints such as fallen bolts.

Inspection Method

- Visual inspection of overall reactor vessel internals utilizing underwater lighting and cameras from the refueling machine or a carriage.
- Visual inspection of each reactor vessel internals.



Outline of Visual Inspection for Fuels and Control Rods

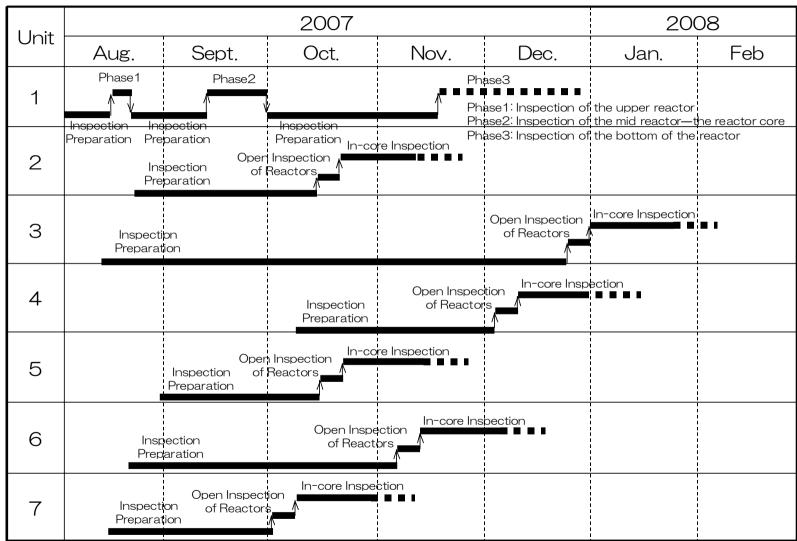
Inspection Policy

 Check for abnormalities such as damages and significant deformation of fuels and control rods for all reactors that had fuels loaded in the core at the time of the earthquake.

Inspection Method

 Check for abnormalities in fuel location, etc. by visual inspection from upper side of fuels.

Other methods.



Publicizing Inspection Results

Inspection Results

- As soon as inspection results for each unit and for each phase* has been put together, they will be publicized.
- Non-conformance confirmed during inspection will be publicized according to their announcement criteria.
- * For units 2 to 7, inspection for phases 1 and 2 are planned to be conducted and their results publicized at the same time.

[Reference] Inspection Methods for Reactor Vessel Internals

- Phase 1 (Inspection of the upper reactor)
 - •In order to check inside the reactor core, first conduct visual inspection of the overall reactor core by an underwater camera from above, followed by inspection of an area covering from the reactor pressure vessel flange to the upper grid plate.
- Phase 2 (Inspection of the mid reactor—the reactor core)
 - •Visual inspection of the area covering from the upper grid plate to the core support plate and the outer circumference of the core shroud (annulus) using an underwater camera. The dryer and separator that are taken out of the core will also be inspected.
- Phase 3 (Inspection of the bottom of the reactor)
 - •Inspect the area covering from the core support plate to the bottom of the reactor after moving control rods and fuel supports that interfere with the inspection.

