

Work Schedule of the Main Inspection/Restoration of the Kashiwazaki-Kariwa Nuclear Power Station in Response to the Niigata-Chuetsu-Oki Earthquake (during 4 Weeks)(1/2)

【Inspection/Restoration Status】
◆From May 24, 2009 (Sun) to June 20th, 2009 (Sat)

System / Equipment	Items	May 24th (Sun) to May 30th (Sat)	May 31st (Sun) to June 6th (Sat)	June 7th (Sun) to June 13th (Sat)	June 14th (Sun) to June 20th (Sat)	Status of Inspection / Restoration
Unit No.1	Turbine facilities	Turbine inspection *				High-pressure turbine and low pressure turbine (A) (B) (C) detailed inspection commenced on Nov. 17, 2008.
	Other facilities	Submerged equipment inspection on ground floor 5 of the reactor combination building				Restoration work to be conducted from Mar. 17, 2008 to late June 2009.
		Main transformer inspection				Carrying in and installation work commenced on Apr. 20.
		House transformer inspection				1A, 1B Carrying in and installation work commenced on Mar. 30.
		Excitation transformer inspection				Carrying in and installation work commenced on Mar. 30.
		Main generator inspection				Inspection commenced on Feb. 7, 2008.
		500kV power cable inspection				Preparation work for laying cables commenced on Mar. 2. Laying cables to be commenced on Jun. 1.
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substruction commenced on Dec. 1, 2008.
		Circulating water pipe inspection				Foundation improvement, excavating work, and inspection of pipes commenced on Aug. 6, 2008.
	Seismic reinforcement	Seismic reinforcement works such as pipe supports				Preparation for reinforcement work commenced on Mar. 10.
		Seismic reinforcement works for the roof truss of the reactor building				Reinforcement work commenced on Jan. 22.
		Seismic reinforcement works for reactor building overhead crane				Preparation for reinforcement work commenced on Apr. 6.
		Seismic reinforcement works for stack (Unit No.1 and Unit No.2)				Preparation for reinforcement work commenced on Feb. 16.
		Seismic reinforcement works for the fuel handling machine				Reinforcement work commenced on Jan. 30.
		Seismic reinforcement works for emergency intake channel				Foundation improvement work commenced on Feb. 9.
	Unit No.2	Reactor facilities	Reactor recirculation piping preventive maintenance			
Turbine facilities		Turbine inspection *				High-pressure turbine and low-pressure turbine (A) internal inspection completed.
Other facilities		House transformer inspection				Transportation into the factory is underway.
		Excitation transformer inspection				Transportation into the factory is underway.
		Main generator inspection				Inspection commenced on Mar. 19, 2008.
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substruction commenced on Dec. 1, 2008.
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building				Preparation for reinforcement work to be conducted from Feb. 9 to Jun. 7. Reinforcement work to be commenced on Jun. 8.	
Unit No.3	Reactor facilities	Reactor recirculation piping preventive maintenance				Preventive maintenance commenced on Sep. 12, 2008. Restoration of the piping cut-out part commenced on May 11.
	Turbine facilities	Turbine inspection *				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 7, 2008. Low-pressure turbine (A) (B) restoration work of blades commenced on Jun. 25, 2008. (Replacement of wear and contacted blades.)
	Other facilities	Main transformer inspection				Transportation into the factory is underway.
		House transformer inspection				3A, 3B Installation work commenced on Nov. 18, 2008.
		Excitation transformer inspection				Installation work commenced on Nov. 18, 2008.
		Main generator inspection				Inspection commenced on Feb. 20, 2008.
		Inspection of power supply input transformer of the primary loop recirculation system adjustable speed drive				Transformer (B) carrying in and installation work commenced on May 27. Transformer (A) carrying in and installation work to be commenced on Jun. 3.
		500kV power cable inspection				Preparation work for laying cables commenced on May 20.
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Jul. 23, 2008. Restoration of substruction commenced on Jan. 9.
	Seismic reinforcement	Circulating water pipe inspection				Foundation improvement, excavating work, and inspection of pipes commenced on Jun. 16, 2008.
Seismic reinforcement works for the roof truss of the reactor building				Reinforcement work commenced on Nov. 27, 2008.		
		Seismic reinforcement works for stack				Preparation for reinforcement work commenced on Feb. 2.
Unit No.4	Turbine facilities	Turbine inspection *				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection to be commenced in early July.
	Other facilities	House transformer inspection				Transportation into the factory is underway.
		Excitation transformer inspection				Transportation into the factory is underway.
		Main generator inspection				Inspection commenced on Jan. 15, 2008.
		Inspection of power supply input transformer of the primary loop recirculation system adjustable speed drive				Carrying in and installation work to be commenced on Jun. 12.
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Jun. 23, 2008.
	Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building				Preparation for reinforcement work completed on May 17. Reinforcement work commenced on May 18.
		Seismic reinforcement works for stack				Preparation for reinforcement work commenced on Feb. 2.

Work Schedule of the Main Inspection/Restoration of the Kashiwazaki-Kariwa Nuclear Power Station in Response to the Niigata-Chuetsu-Oki Earthquake (during 4 Weeks)(2/2)

【Inspection/Restoration Status】

◆From May 24, 2009 (Sun) to June 20th, 2009 (Sat)

System / Equipment	Items	May 24th (Sun) to May 30th (Sat)	May 31st (Sun) to June 6th (Sat)	June 7th (Sun) to June 13th (Sat)	June 14th (Sun) to June 20th (Sat)	Status of Inspection / Restoration
Unit No.5	Turbine facilities	Turbine inspection *				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 25.
	Other facilities	Main transformer inspection				Carrying in and installation work commenced on Mar. 25.
		House transformer inspection				5A, 5B Carrying in and installation work commenced on Apr. 25.
		Excitation transformer inspection				Carrying in and installation work commenced on Mar. 2.
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Jun. 2, 2008. Restoration work of duct to be commenced on Jun. 8.
		Circulating water pipe inspection				Foundation improvement, excavating work, and inspection of pipes commenced on Oct. 25, 2008.
	Seismic reinforcement	Seismic reinforcement works such as pipe supports				Reinforcement work commenced on Apr. 28.
		Seismic reinforcement works for the roof truss of the reactor building				Reinforcement work completed on May 22.
		Seismic reinforcement works for reactor building overhead crane				Preparation for reinforcement work completed on May 27. Reinforcement work to be commenced on May 28.
		Seismic reinforcement works for stack				Preparation for reinforcement work commenced on Feb. 2.
Seismic reinforcement works for the fuel handling machine				Reinforcement work commenced on Apr. 23.		
Unit No.6	Reactor facilities	Primary containment vessel closure				Closure work completed on May 20.
	Turbine facilities	Turbine inspection *				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 12, 2008. Restoration of casing commenced on April 30.
	Verification of system integrity	System functional test				System functional test commenced on Dec. 4, 2008. Reactor building airtightness inspection conducted on May 26.
Unit No.7	Functional test for the entire plant				Inspection after generating power at approx. 20% of the rated output conducted on May 23.	
Transformer (common) / Switch Yard	High-voltage start-up transformer #2 inspection				Transportation into the factory is underway.	
	On-site check / inspection / restoration of the oil protection bank for the transformer				Unit No.1 Restoration work commenced on Oct. 4, 2008. Unit No.2 Preparation for restoration work commenced on May 20, 2008. Unit No.3 Restoration work to be conducted from Aug. 2, 2008 to Jun. 30, 2009. Unit No.4 Restoration work commenced on Dec. 13, 2008. Unit No.5 Restoration work to be conducted from Aug. 27, 2008 to June 20, 2009. Scrubbing of soil contaminated by oil leakage commenced on Sep. 16, 2008.	
Environmental Facilities	House boilers inspection				(Arahama-side) 1A Inspection to be conducted from Apr. 8, 2008 to September 2009. 3A Preparation for transportation of electric boiler transformer to be conducted from Mar. 2 to Jun. 12. Carrying out to be conducted on Jun. 13.	
	Restoration work of filtrate tank / demineralized tank on Arahama-side				Preparation for restoration work of No.1 filtrate tank/demineralized tank commenced on Dec. 2, 2008. Restoration work of demineralized tank commenced on May 26. Restoration work of filtrate tank to be commenced on Jun. 1.	
Others	Restoration work for solid waste storage facility				Prevention countermeasure for drum falling commenced on Jan. 16.	
	Restoration work for administration building / information building, etc.				Restoration work for administration building and information building is underway.	
	Construction of seismic-isolated essential buildings				Construction commenced on Oct. 14, 2008.	
	Restoration of laundry facility building on Arahama-side				Restoration work to be conducted from Jan. 30 to late September.	
	Reconstruction of arrestor steel tower on Arahama-side				Preparation work for reconstruction to be conducted from May 29 to Jun. 9. Reconstruction to be commenced on Jun. 10.	
	Restoration and reinforcement work for the on-site / outside roads & slope, etc.				Restoration work for roads inside and outside of the site currently in progress. Maintenance work of the slope in front of sub protection headquarter office commenced on May 13. Restoration work of Daini Takamachi Bridge commenced on May 12.	
	Restoration work for port facility				Restoration work for bank protection commenced on Apr. 3, 2008.	

* Inspection results for each facilities will be announced as soon as they compiled.

* Inspection and restoration work and execution date for each item may alter according to the situation.

* Turbine inspection work will be conducted as follows:

- All units will be inspected in detail by opening all turbine casings after conducting internal inspection.
- Internal inspection will be conducted by opening the high-pressure turbine and low-pressure turbine (A) and visually checking for damages or significant deformation in major components such as the casings and blades.
(For the unit No. 1, since the high-pressure turbine and low-pressure turbines (A) and (C) had been opened for regular outage at the time of the earthquake, inspections will be conducted for the low-pressure turbine (B) that had not been opened.)
- Detailed inspection includes, in addition to regular full-scope inspection, special inspection in consideration of the impact of the earthquake and necessary repairs in case damages are found.