

### 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 June 7, 2009 (Sun) to July 4th, 2009 (Sat)

System / Equipment		Items	June 7th (Sun) to June 13th (Sat)	June 14th (Sun) to June 20th (Sat)	June 21st (Sun) to June 27th (Sat)	June 28th (Sun) to July 4th (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 Jun. 26, 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 completed on Jun. 1. Laying cables commenced on Jun. 2.
		Main exhaust duct inspection / restoration							Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substructure 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 completed on Jun. 8. Reinforcement work commenced on Jun. 9.
		Seismic reinforcement works for stack (Unit No.1 and Unit No.2)							Preparation for reinforcement work commenced on Feb. 16. Reinforcement work to be commenced in mid-July.
		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					▼	Preparation work commenced on Dec. 16, 2008. Ultrasonic testing commenced on Feb. 18. Preventive maintenance of branch pipe to be commenced on Jun. 15.	
	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 substructure commenced on Dec. 1, 2008.	
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building	▼					Preparation for reinforcement work completed on Jun. 10. Reinforcement work to be commenced on Jun. 11.		
Unit No.3	Reactor facilities	Reactor recirculation piping preventive maintenance					▼	Preventive maintenance commenced on Sep. 12, 2008. Restoration of the piping cut-out part to be conducted from May 11 to Jun. 16.	
	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 commenced on Jun. 3.
		500kV power cable inspection					▼		Preparation work for laying cables to be conducted from May 20 to Jun. 24. Laying cables to be commenced on Jun. 25.
		Main exhaust duct inspection / restoration							Preparation for restoration work commenced on Jul. 23, 2008. Restoration of substructure commenced on Jan. 9.
	Circulating water pipe inspection							Foundation improvement, excavating work, and inspection of pipes commenced on Jun. 16, 2008.	
Seismic reinforcement	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. Reinforcement work to be commenced in mid-July.	
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							Reinforcement work commenced on May 18.
		Seismic reinforcement works for stack							Preparation for reinforcement work commenced on Feb. 2. Reinforcement work to be commenced in early July.

### 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 June 7, 2009 (Sun) to July 4th, 2009 (Sat)

System / Equipment		Items	June 7th (Sun) to June 13th (Sat)	June 14th (Sun) to June 20th (Sat)	June 21st (Sun) to June 27th (Sat)	June 28th (Sun) to July 4th (Sat)	Status of Inspection / Restoration	
Unit No.5	Turbine facilities	Turbine inspection *	[Blue bar with inverted triangle]				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 25.	
	Other facilities	Main transformer inspection	[Blue bar]				Carrying in and installation work commenced on Mar. 25.	
		House transformer inspection	[Blue bar]				5A, 5B Carrying in and installation work commenced on Apr. 25.	
		Excitation transformer inspection	[Blue bar]				Carrying in and installation work commenced on Mar. 2.	
		Main exhaust duct inspection / restoration	[Blue bar with inverted triangle]	[Blue bar]				Preparation for restoration work commenced on Jun. 2, 2008. Restoration work of duct commenced on Jun. 8.
		Circulating water pipe inspection	[Blue bar]				Foundation improvement, excavating work, and inspection of pipes commenced on Oct. 25, 2008.	
	Seismic reinforcement	Seismic reinforcement works such as pipe supports	[Blue bar]				Reinforcement work commenced on Apr. 28.	
		Seismic reinforcement works for reactor building overhead crane	[Blue bar]				Preparation for reinforcement work completed on May 27. Reinforcement work commenced on May 28.	
Seismic reinforcement works for stack		[Blue bar with inverted triangle]				Preparation for reinforcement work commenced on Feb. 2. Reinforcement work to be commenced on Jun. 22.		
Seismic reinforcement works for the fuel handling machine		[Blue bar]				Reinforcement work commenced on Apr. 23.		
Unit No.6	Turbine facilities	Turbine inspection *	[Blue bar with inverted triangle]	[Blue bar]				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection completed on Jun. 10. Restoration of casing, etc. completed on Jun. 10.
	Verification of system integrity	System functional test	[Blue bar with inverted triangles]	[Blue bar]				System functional test commenced on Dec. 4, 2008. Partial interlock functional tests of reactor protection system conducted on Jun. 10. Partial interlock functional tests of liquid waste storage facility and disposal equipment to be conducted on Jun. 12. Functional tests of feedwater pump to be conducted on Jun. 15. Functional tests of turbine bypass valve to be conducted on Jun. 17.
Unit No.7		Functional test for the entire plant	[Blue bar with inverted triangle]	[Blue bar]				Inspection after reaching rated thermal output conducted on Jun. 8.
Transformer (common) / Switch Yard		High-voltage start-up transformer #2 inspection	[Blue bar]				Transportation into the factory is underway.	
		On-site check / inspection / restoration of the oil protection bank for the transformer	[Blue bar with inverted triangle]				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. 19, 2009. Unit No.4 Restoration work commenced on Dec. 13, 2008. Unit No.5 Restoration work to be conducted from Aug. 27, 2008 to Jun. 30, 2009. Scrubbing of soil contaminated by oil leakage commenced on Sep. 16, 2008.	
Environmental Facilities		House boilers inspection	[Blue bar with inverted triangle]	[Blue bar]				(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	[Blue bar]				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 commenced on Jun. 1.	
Others		Restoration work for solid waste storage facility	[Blue bar]				Prevention countermeasure for drum falling commenced on Jan. 16.	
		Restoration work for administration building / information building, etc.	[Blue bar]				Restoration work for administration building and information building is underway.	
		Construction of seismic-isolated essential buildings	[Blue bar]				Construction commenced on Oct. 14, 2008.	
		Restoration of laundry facility building on Arahama-side	[Blue bar]				Restoration work to be conducted from Jan. 30 to late September.	
		Reconstruction of arrestor steel tower on Arahama-side	[Blue bar with inverted triangle]	[Blue bar]				Preparation work for reconstruction to be conducted from May 29 to Jun. 14. Reconstruction to be commenced on Jun. 15.
		Restoration and reinforcement work for the on-site / outside roads & slope, etc.	[Blue bar]				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	[Blue bar]				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.