

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 April 26th, 2009 (Sun) to May 23rd, 2009 (Sat)

System / Equipment	Items	Apr. 26th (Sun) to May 2nd (Sat)	May 3rd (Sun) to May 9th (Sat)	May 10th (Sun) to May 16th (Sat)	May 17th (Sun) to May 23rd (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. <Work suspended from May 1 to May 6.>	
	Other facilities	Submerged equipment inspection on ground floor 5 of the reactor combination building					Restoration work to be conducted from Mar. 17, 2008 to early June 2009. <Work suspended from May 2 to May 10.>
		Main transformer inspection					Carrying in and installation work commenced on Apr. 20. <Work suspended from Apr. 29 to May 6.>
		House transformer inspection					1A, 1B Carrying in and installation work commenced on Mar. 30. <Work suspended from Apr. 29 to May 6.>
		Excitation transformer inspection					Carrying in and installation work commenced on Mar. 30. <Work suspended from Apr. 29 to May 6.>
		Main generator inspection					Inspection commenced on Feb. 7, 2008. <Work suspended from Apr. 29 to May 6.>
		500kV power cable inspection					Preparation work for laying cables commenced on Mar. 2. <Work suspended from Apr. 29 to May 10.>
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substructure commenced on Dec. 1, 2008. <Work suspended from May 2 to May 6.>
	Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Aug. 6, 2008. <Work suspended from Apr. 29 to May 10.>	
	Seismic reinforcement	Seismic reinforcement works such as pipe supports					Preparation for reinforcement work commenced on Mar. 10. <Work suspended from May 2 to May 6.>
		Seismic reinforcement works for the roof truss of the reactor building					Reinforcement work commenced on Jan. 22. <Work suspended from May 2 to May 6.>
		Seismic reinforcement works for reactor building overhead crane					Preparation for reinforcement work commenced on Apr. 6. <Work suspended from May 2 to May 6.>
		Seismic reinforcement works for stack (Unit No.1 and Unit No.2)					Preparation for reinforcement work commenced on Feb. 16. <Work suspended from May 2 to May 6.>
		Seismic reinforcement works for the fuel handling machine					Reinforcement work commenced on Jan. 30. <Work suspended from May 2 to May 6.>
Seismic reinforcement works for emergency intake channel					Foundation improvement work commenced on Feb. 9. <Work suspended from Apr. 29 to May 10.>		
Unit No.2	Reactor facilities	Reactor recirculation piping preventive maintenance				Preparation work commenced on Dec. 16, 2008. Ultrasonic testing commenced on Feb. 18. <Work suspended from May 2 to May 6.>	
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. <Work suspended from Apr. 29 to May 6.>	
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substructure commenced on Dec. 1, 2008. <Work suspended from May 2 to May 6.>	
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building				Preparation for reinforcement work to be conducted from Feb. 9 to May 17. Reinforcement work to be commenced on May 18. <Work suspended from May 2 to May 6.>		
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 commenced on May 11. <Work suspended from May 2 to May 6.>	
Turbine facilities	Turbine inspection *					Low-pressure turbine (B) (C) detailed inspection commenced on May 7, 2008. <Work suspended from May 1 to May 6.> High-pressure turbine and low pressure turbine (A) detailed inspection commenced on Jun. 25, 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. <Work suspended from Apr. 29 to May 6.>		
Excitation transformer inspection					Installation work commenced on Nov. 18, 2008. <Work suspended from Apr. 29 to May 6.>		
Main generator inspection					Inspection commenced on Feb. 20, 2008. <Work suspended from May 29 to May 6.>		
Inspection of power supply input transformer of the primary loop recirculation system adjustable speed drive					Transportation into the factory is underway.		
500kV power cable inspection					Preparation work for laying cables to be commenced on May 18.		
Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jul. 23, 2008. Restoration of substructure commenced on Jan. 9. <Work suspended from May 2 to May 6.>		
Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Jun. 16, 2008. <Work suspended from May 1 to May 6.>		
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building					Reinforcement work commenced on Nov. 27, 2008. <Work suspended from May 2 to May 6.>	
	Seismic reinforcement works for stack					Preparation for reinforcement work commenced on Feb. 2. <Work suspended from May 2 to May 6.>	
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 2009.	
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. <Work suspended from Apr. 29 to May 6.>	
	Inspection of power supply input transformer of the primary loop recirculation system adjustable speed drive					Transportation into the factory is underway.	
	Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jun. 23, 2008. <Work suspended from May 2 to May 6.>	
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building					Preparation for reinforcement work to be conducted from Mar. 13 to May 17. Reinforcement work to be commenced on May 18. <Work suspended from May 2 to May 6.>	
	Seismic reinforcement works for stack					Preparation for reinforcement work commenced on Feb. 2. <Work suspended from May 2 to May 6.>	

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 April 26th, 2009 (Sun) to May 23rd, 2009 (Sat)

System / Equipment	Items	Apr. 26th (Sun) to May 2nd (Sat)	May 3rd (Sun) to May 9th (Sat)	May 10th (Sun) to May 16th (Sat)	May 17th (Sun) to May 23rd (Sat)	Status of Inspection / Restoration	
Unit No.5	Turbine facilities	Turbine inspection *				High-pressure turbine and low-pressure turbine (A) internal inspection completed.	
	Other facilities	Main transformer inspection					Carrying in and installation work commenced on Mar. 25. <Work suspended from May 2 to May 6.>
		House transformer inspection					5A, 5B Carrying in and installation work commenced on Apr. 24. <Work suspended from May 2 to May 6.>
		Excitation transformer inspection					Carrying in and installation work commenced on Mar. 2. <Work suspended from May 2 to May 6.>
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jun. 2, 2008. <Work suspended from Apr. 29 to May 6.>
		Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Oct. 25, 2008. <Work suspended from Apr. 29 to May 10.>
	Seismic reinforcement	Seismic reinforcement works such as pipe supports					Preparation for the reinforcement work completed on Apr. 27. Reinforcement work commenced on Apr. 28. <Work suspended from May 2 to May 6.>
		Seismic reinforcement works for the roof truss of the reactor building					Reinforcement work commenced on Jan. 19. <Work suspended from May 2 to May 6.>
		Seismic reinforcement works for reactor building overhead crane					Preparation for reinforcement work commenced on Apr. 6. <Work suspended from May 2 to May 6.>
		Seismic reinforcement works for stack					Preparation for reinforcement work commenced on Feb. 2. <Work suspended from May 2 to May 6.>
Seismic reinforcement works for the fuel handling machine						Reinforcement work commenced on Apr. 23. <Work suspended from May 2 to May 6.>	
Unit No.6	Reactor facilities	Primary containment vessel closure				Closure work to be conducted from May 11 to May 20.	
	Turbine facilities	Turbine inspection *					High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 12, 2008. Low-pressure turbine restoration work of blades to be conducted from Jan. 8 to Apr. 30. Restoration of casing to be commenced on May 1. <Work suspended from May 3 to May 6.>
		Verification of system integrity	System functional test				
Unit No.7							
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. <Work suspended from Apr. 29 to May 10.> Unit No.2 Preparation for restoration work commenced on May 20, 2008. <Work suspended from Apr. 29 to May 10.> Unit No.3 Restoration work to be conducted from Aug. 2, 2008 to May 29, 2009. <Work suspended from Apr. 29 to May 10.> Unit No.4 Restoration work commenced on Dec. 13, 2008. <Work suspended from Apr. 29 to May 10.> Unit No.5 Restoration work to be conducted from Aug. 27, 2008 to May 22, 2009. <Work suspended from Apr. 29 to May 10.> Scrubbing of soil contaminated by oil leakage commenced on Sep. 16, 2008. <Work suspended from May 1 to May 6.>	
Environmental Facilities	House boilers inspection					(Arahama-side) 1A Inspection to be conducted from Apr. 8, 2008 to September 2009. <Work suspended from May 2 to May 6.> 3A Preparation for transportation of electric boiler transformer commenced on Mar. 2. <Work suspended from May 2 to May 6.>	
	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. <Work suspended from May 2 to May 6.>	
Others	Restoration work for solid waste storage facility					Prevention countermeasure for drum falling commenced on Jan. 16. <Work suspended from May 1 to May 6.>	
	Restoration work for administration building / information building, etc.					Restoration work for administration building and information building is underway. <Work suspended from May 2 to May 6.>	
	Construction of seismic-isolated essential buildings					Construction commenced on Oct. 14, 2008. <Work suspended from May 2 to May 6.>	
	Restoration of laundry facility building on Arahama-side					Restoration work to be conducted from Jan. 30 to late September. <Work suspended from May 2 to May 6.>	
	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. <Work suspended from Apr. 29 to May 10.> Maintenance work of the slope in front of sub protection headquarter office to be commenced on May 11. Restoration work of Daini Takamachi Bridge to be commenced on May 11.	
	Restoration work for port facility					Restoration work for bank protection commenced on Apr. 3, 2008. <Work suspended from Apr. 29 to May 10.>	

* 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.

※ Period to suspend the works for "Golden Week" holidays.

* 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.