

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 19th, 2009 (Sun) to May 16th, 2009 (Sat)

System / Equipment	Items	Apr. 19th (Sun) to Apr. 25th (Sat)	Apr. 26th (Sun) to May 2nd (Sat)	May 3rd (Sun) to May 9th (Sat)	May 10th (Sun) to May 16th (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 late May 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 May 2 to May 6.>					
		500kV power cable inspection		Preparation work for laying cables commenced on Mar. 2. <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	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 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.>					
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 May 2 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.>					
		Reactor facilities	Reactor recirculation piping preventive maintenance					Preventive maintenance commenced on Sep. 12, 2008. The date of restoration of the piping cut-out part to be determined. <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				
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.>							
Seismic reinforcement	Main generator inspection		Inspection commenced on Feb. 20, 2008. <Work suspended from May 2 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 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 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 May 2 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 19th, 2009 (Sun) to May 16th, 2009 (Sat)

System / Equipment	Items	Apr. 19th (Sun) to Apr. 25th (Sat)	Apr. 26th (Sun) to May 2nd (Sat)	May 3rd (Sun) to May 9th (Sat)	May 10th (Sun) to May 16th (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 3 to May 6.>
		House transformer inspection				3A, 5B Carrying in and installation work to be commenced on Apr. 24. <Work suspended from May 3 to May 6.>
		Excitation transformer inspection				Carrying in and installation work commenced on Mar. 2. <Work suspended from May 3 to May 6.>
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Jan. 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 to be conducted from Mar. 16 to Apr. 26. Reinforcement work to be commenced on Apr. 27. <Work suspended from May 3 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				Preparation for reinforcement work completed on Apr. 22. Reinforcement work to be 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 commenced on May 11.
	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 commenced on Jan. 8. <Work suspended from May 3 to May 6.>
	Verification of system integrity	System functional test				System functional test commenced on Dec. 4, 2008. <Work suspended from May 2 to May 6.> The date of primary containment vessel leak-rate inspection to be determined.
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 6.>	

\* 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.