

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 January 11th, 2009 (Sun) to February 7, 2009 (Sat)

System / Equipment		Items	Jan. 11th (Sun) to Jan. 17th (Sat)	Jan. 18th (Sun) to Jan. 24th (Sat)	Jan. 25th (Sun) to Jan. 31st (Sat)	Feb. 1st (Sun) to Feb. 7th (Sat)	Status of Inspection / Restoration	
Unit No.1	Turbine facilities	Turbine inspection *					Low-pressure turbine (B) internal inspection completed. 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 commenced on Mar. 17, 2008.
		House transformer inspection						Transportation into the factory is underway.
		Excitation transformer inspection						Transportation into the factory is underway.
		Main generator inspection						Inspection commenced on Feb. 7, 2008. Withdrawal of rotor completed on Mar. 5, 2008.
		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 for the roof truss of the reactor building			▼			Preparation for reinforcement work to be conducted from Dec. 11, 2008 to Jan. 20, 2009. Reinforcement work to be commenced on Jan. 21.
		Emergency intake channel		▼				Preparation for reinforcement work to be conducted from Dec. 8, 2008 to Jan. 18, 2009. Foundation improvement work to be commenced on Jan. 19.
Unit No.2	Reactor facilities	Reactor recirculation piping preventive maintenance					Preparation work commenced on Dec. 16, 2008.	
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. Transportation of rotor into the factory completed on Aug. 22, 2008.	
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substructure commenced on Dec. 1, 2008.	
Unit No.3	Reactor facilities	Reactor recirculation piping preventive maintenance					Preventive maintenance commenced on Sep. 12, 2008. Ultrasonic testing commenced on Oct. 16, 2008.	
Turbine facilities	Turbine inspection *						Low-pressure turbine (B) (C) detailed inspection commenced on May 7, 2008. 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.		
Excitation transformer inspection						Installation work commenced on Nov. 18, 2008.		
Main generator inspection						Inspection commenced on Feb. 20, 2008. Rotor carrying in completed on Aug. 1, 2008.		
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, 2009.		
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.	
Unit No.4	Turbine facilities	Turbine inspection *					High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection conducted from Jun. 19 to to Sep. 30, 2008 and to be commenced in April 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. Transportation of rotor into the factory completed on Jun. 11, 2008.	
	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. Restoration of substructure commenced on Nov. 4, 2008.	

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 January 11th, 2009 (Sun) to February 7, 2009 (Sat)

System / Equipment	Items	Jan. 11th (Sun) to Jan. 17th (Sat)	Jan. 18th (Sun) to Jan. 24th (Sat)	Jan. 25th (Sun) to Jan. 31st (Sat)	Feb. 1st (Sun) to Feb. 7th (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	House transformer inspection					Transportation into the factory is underway.
		Excitation transformer inspection					Transportation into the factory is underway.
		Main generator inspection					Restoration work commenced on Sep. 11, 2008.
		500kV power cable inspection					Removal of cables commenced on Jun. 30, 2008.
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jun. 2, 2008. Restoration of substructure commenced on Nov. 20, 2008.
	Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Oct. 25, 2008.	
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building					Preparation for reinforcement work to be conducted from Dec. 8, 2008 to Jan. 18, 2009. Reinforcement work to be commenced on Jan. 19.	
Unit No.6	Reactor facilities	Reactor head opening					Reactor head opening to be conducted from Jan. 21 to Jan. 25.
		Control rod drive inspection					Disassembly and inspection test of the control rod drive to be conducted from Jan. 26 to Feb. 3.
	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.
		Reactor internal pump input transformer inspection					Installation work completed on Jan. 10. Electrical testing completed on Jan. 10.
	Other facilities	Main generator inspection					Inspection commenced on Mar. 10, 2008. Withdrawal of rotor completed on Apr. 3, 2008. Restoration work commenced on Dec. 13, 2008.
		Seismic reinforcement	Seismic reinforcement works such as pipe supports				
	Seismic reinforcement	Seismic reinforcement works for reactor building overhead crane					Reinforcement work completed on Jan. 12.
		Seismic reinforcement works for fuel handling machine					Reinforcement work to be conducted from Aug. 22, 2008 to Jan. 25, 2009.
		Verification of system integrity	System functional test				
	Unit No.7	Turbine facilities	Turbine inspection *				
Other facilities			Main generator inspection				Restoration work commenced on Jul. 14, 2008.
Verification of system integrity		System functional test					System functional test commenced on Sep. 18, 2008.
Transformer (common) / Switch Yard	High-voltage start-up transformer #2 inspection					Preparation for inspection to be conducted from Jan. 6 to Jan. 18. Inspection to be commenced on Jan. 19.	
	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. Recovery of oil-contaminated soil commenced on Jul. 12, 2008. Unit No.3 Restoration work commenced on Aug. 2, 2008. Unit No.4 Restoration work commenced on Dec. 13, 2008. Unit No.5 Restoration work commenced on Aug. 27, 2008. 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 July 2009. 2B Inspection commenced on Apr. 8, 2008.	
	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.	
Others	Restoration work for solid waste storage facility					Preparation work for prevention countermeasure for drum falling to be conducted from Nov. 29, 2008 to Jan. 15, 2009. Prevention countermeasure for drum falling to be commenced on Jan. 16, 2009.	
	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.	
	Outdoor fire protection system piping to be placed above ground, etc.					(Arahama-side) Work on installing fire protection system piping above ground commenced on Apr. 28, 2008. Replacement work on the fire protection system piping around the Arahama-side building from underground to above ground completed on Jun. 28, 2008.	
	Relocation work of ground motion observation points					Boring work to be conducted from Oct. 20, 2008 to Jan. 25, 2009. Seismometer installation work to be commenced on Jan. 26.	
	Restoration of laundry facility building on Arahama-side					Preparation for restoration work commenced on Jan. 13.	
	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.	
Restoration work for port facility					Restoration work for bank protection commenced on Apr. 3, 2008. The works to be suspended from Dec. 13, 2008 to March 2009 for the winter season.		

※ 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.