

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)(1/3)

【Inspection/Restoration Status】

◆From December 21st, 2008 (Sun) to January 17th, 2009 (Sat)

System / Equipment	Items	Dec. 21st (Sun) to Dec. 27th (Sat)	Dec. 28th (Sun) to Jan. 3rd (Sat)	Jan. 4th (Sun) to Jan. 4th (Sat)	Jan. 11th (Sun) to Jan. 17th (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. <Work to be suspended from Dec. 27 to Jan. 4>	
	Other facilities	Submerged equipment inspection on ground floor 5 of the reactor combination building					Restoration work commenced on Mar. 17, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
		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. <Work to be suspended from Dec. 27 to Jan. 4>
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substructure commenced on Dec. 1, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
	Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Aug. 6, 2008. <Work to be suspended from Dec. 27 to Jan. 4>	
	Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building					Preparation for reinforcement work commenced on Dec. 11, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
Emergency intake channel						Preparation for reinforcement work commenced on Dec. 8, 2008. Foundation improvement work to be commenced in January 2009. <Work to be suspended from Dec. 27 to Jan. 4>	
Unit No.2	Reactor facilities	Reactor recirculation piping preventive maintenance				Preparation work commenced on Dec. 16, 2008. <Work to be suspended from Dec. 27 to Jan. 4>	
	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. <Work to be suspended from Dec. 27 to Jan. 4>
Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Aug. 9, 2008. Restoration of substructure commenced on Dec. 1, 2008. <Work to be suspended from Dec. 27 to Jan. 4>		
Unit No.3	Reactor facilities	Reactor recirculation piping preventive maintenance				Preventive maintenance commenced on Sep. 12, 2008. Ultrasonic testing commenced on Oct. 16, 2008. <Work to be suspended from Dec. 27 to Jan. 4>	
	Turbine facilities	Turbine inspection *				Low-pressure turbine (B) (C) detailed inspection commenced on May 7, 2008. High-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.) <Work to be suspended from Dec. 27 to Jan. 4>	
		Main transformer inspection					Transportation into the factory is underway.
	Other facilities	House transformer inspection					3A, 3B Installation work commenced on Nov. 18, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
		Excitation transformer inspection					Installation work commenced on Nov. 18, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
		Main generator inspection					Inspection commenced on Feb. 20, 2008. Rotor carrying in completed on Aug. 1, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
		Inspection of power supply input transformer of the primary loop recirculation system adjustable speed drive					Transportation into the factory is underway.
		Stack inspection					Inspection of stand-by gas treatment system pipe support completed on Dec. 15, 2008.
		Main exhaust duct inspection / restoration					Preparation for restoration work to be conducted from Jul. 23, 2008 to Jan. 8, 2009. Restoration of substructure to be commenced on Jan. 9, 2009. <Work to be suspended from Dec. 27 to Jan. 4>
	Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Jun. 16, 2008. <Work to be suspended from Dec. 27 to Jan. 4>	
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building					Reinforcement work commenced on Nov. 27, 2008. <Work to be suspended from Dec. 27 to Jan. 4>	
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. <Work to be suspended from Dec. 27 to Jan. 4>
		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 to be suspended from Dec. 27 to Jan. 4>

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) (2/3)

【Inspection/Restoration Status】

◆From December 21st, 2008 (Sun) to January 17th, 2009 (Sat)

System / Equipment	Items	Dec. 21st (Sun) to Dec. 27th (Sat)	Dec. 28th (Sun) to Jan. 3rd (Sat)	Jan. 4th (Sun) to Jan. 4th (Sat)	Jan. 11th (Sun) to Jan. 17th (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. <Work to be suspended from Dec. 27 to Jan. 4>
		500kV power cable inspection				Removal of cables commenced on Jun. 30, 2008. <Work to be suspended from Dec. 26 to Jan. 5>
		Main exhaust duct inspection / restoration				Preparation for restoration work commenced on Jun. 2, 2008. Restoration of substructure commenced on Nov. 20, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
		Circulating water pipe inspection				Foundation improvement, excavating work, and inspection of pipes commenced on Oct. 25, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building				Preparation for reinforcement work commenced on Dec. 8, 2008. <Work to be suspended from Dec. 27 to Jan. 4>	
Unit No.6	Turbine facilities	Turbine inspection *				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 12, 2008. <Work to be suspended from Dec. 28 to Jan. 4>
	Other facilities	Reactor internal pump input transformer inspection				Installation work commenced on Mar. 26, 2008. Electrical testing to be conducted from Oct. 15, 2008 to mid-January, 2009. <Work to be suspended from Dec. 27 to Jan. 4>
		Main generator inspection				Inspection commenced on Mar. 10, 2008. Withdrawal of rotor completed on Apr. 3, 2008. Restoration work commenced on Dec. 13, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
		Stack inspection				Inspection of outdoor duct completed on Dec. 19, 2008.
	Seismic reinforcement	Seismic reinforcement works such as pipe supports				Reinforcement work commenced on Jul. 4, 2008. <Work to be suspended from Dec. 27 to Jan. 5>
		Seismic reinforcement works for reactor building overhead crane				Reinforcement work to be conducted from Oct. 31, 2008 to Jan. 14, 2009. <Work to be suspended from Dec. 27 to Jan. 4>
		Seismic reinforcement works for fuel handling machine				Reinforcement work commenced on Aug. 22, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
Verification of system integrity	System functional test				System functional test commenced on Dec. 4, 2008. <Work to be suspended from Dec. 27 to Jan. 4> Interlock functional test of liquid waste storage facility and disposal equipment #1 conducted on Dec. 11, Dec. 17, and Dec. 19, and to be conducted on Dec. 25, 2008. Rated capacity verification test of the emergency diesel generator conducted on Dec. 15 and Dec. 18, 2008. Functional test of automatic depressurization system conducted on Dec. 18, 2008. Functional test of primary containment vessel isolation valve conducted on Dec. 20, 2008. Functional test of primary containment vessel spray system to be conducted on Dec. 25, 2008.	
Unit No.7	Turbine facilities	Turbine inspection *				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection is underway. Low-pressure turbine (A) (B) (C) restoration work of blades completed on Dec. 19, 2008. Low-pressure turbine restoration of casing commenced on Dec. 19, 2008. <Work to be suspended from Dec. 30 to Jan. 4>
	Other facilities	Main generator inspection				Restoration work commenced on Jul. 14, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
	Verification of system integrity	System functional test				System functional test commenced on Sep. 18, 2008. <Work to be suspended from Dec. 27 to Jan. 4>

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) (3/3)

【Inspection/Restoration Status】

◆ From December 21st, 2008 (Sun) to January 17th, 2009 (Sat)

System / Equipment	Items	Dec. 21st (Sun) to Dec. 27th (Sat)	Dec. 28th (Sun) to Jan. 3rd (Sat)	Jan. 4th (Sun) to Jan. 4th (Sat)	Jan. 11th (Sun) to Jan. 17th (Sat)	Status of Inspection / Restoration
Transformer (common) / Switch Yard	High-voltage start-up transformer #2 inspection					Preparation for inspection to be commenced on Jan. 6, 2009.
	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. <Work to be suspended from Dec. 27 to Jan. 5> 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. (Ohminato-side) 4C Inspection completed on Dec. 17, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
	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 to be suspended from Dec. 27 to Jan. 4>
Others	Restoration work for solid waste storage facility					Preparation work for prevention countermeasure for drum falling to be conducted from Nov. 29, 2008 to January 2009. <Work to be suspended from Dec. 27 to Jan. 4>
	Restoration work for administration building / information building, etc.					Restoration work for administration building and information building is underway. <Work to be suspended from Dec. 27 to Jan. 4> Repair work of the second floor and third floor of information building completed on Dec. 19, 2008.
	Construction of seismic-isolated essential buildings					Construction commenced on Oct. 14, 2008. <Work to be suspended from Dec. 27 to Jan. 4>
	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. <Work to be suspended from Dec. 27 to Jan. 5>
	Relocation work of ground motion observation points					Boring work commenced on Oct. 20, 2008. <Work to be suspended from Dec. 24 to Jan. 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 to be suspended from Dec. 27 to Jan. 4>
	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.

※ Period to suspend the works for the year-end and new year recess.

* 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.