

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 November 16th, 2008 (Sun) to December 13th, 2008 (Sat)

System / Equipment	Items	Nov. 16th (Sun) to Nov. 22nd (Sat)	Nov. 23rd (Sun) to Nov. 29th (Sat)	Nov. 30th (Sun) to Dec. 6th (Sat)	Dec. 7th (Sun) to Dec. 13th (Sat)	Status of Inspection / Restoration	
Unit No.1	Reactor facilities	Repair work of steam separator	▼			Preparation for repair work completed on Oct. 29. Repair work completed on Nov. 17.	
	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.	
	Other facilities	Submerged equipment inspection on ground floor 5 of the reactor combination building					Restoration work commenced on Mar. 17.
		House transformer inspection					1A, 1B On-site transportation completed on Jul. 9.
		Excitation transformer inspection					Transportation into the factory is underway.
		Main generator inspection					Inspection commenced on Feb. 7. Withdrawal of rotor completed on Mar. 5.
		Main exhaust duct inspection / restoration	▼	▼	▼		Preparation for restoration work commenced on Aug. 9. Restoration of substructure to be commenced on Nov. 27. Ventilation system exhaust stack inlet radiation monitor sampling pipe inspection completed on Nov. 18.
Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Aug. 6.		
Unit No.2	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				On-site transportation completed on May 16.	
		Main generator inspection				Inspection commenced on Mar. 19. Transportation of rotor into the factory completed on Aug. 22.	
		Main exhaust duct inspection / restoration		▼			Preparation for restoration work commenced on Aug. 9. Restoration of substructure to be commenced on Nov. 27.
Unit No.3	Reactor facilities	Reactor recirculation piping preventive maintenance				Preparation work commenced on Jul. 14. Preventive maintenance commenced on Sep. 12. Ultrasonic testing commenced on Oct. 16.	
	Turbine facilities	Turbine inspection †				Low-pressure turbine (B) (C) detailed inspection commenced on May 7. High-pressure turbine and low pressure turbine (A) detailed inspection commenced on Jun. 25. Low-pressure turbine (A) (B) restoration work of blades commenced on Jun. 25. (Replacement of wear and contacted blades.)	
	Other facilities	Main transformer inspection					Transportation into the factory is underway.
		House transformer inspection	▼	▼			3A, 3B Carrying in completed on Nov. 17. Installation work commenced on Nov. 18.
		Excitation transformer inspection	▼	▼			Carrying in completed on Nov. 17. Installation work commenced on Nov. 18.
		Main generator inspection					Inspection commenced on Feb. 20. Rotor carrying in completed on Aug. 1.
		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 stack radiation monitor sampling pipe completed on Nov. 16. (incl. restoration work of stack radiation monitor building.)
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jul. 23. Restoration of substructure to be commenced in mid-December.
	Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Jun. 16.	
Seismic reinforcement	Seismic reinforcement works for the roof truss of the reactor building		▼			Preparation for reinforcement work to be conducted from Oct.20 to Nov. 24. Reinforcement work to be commenced on Nov. 25.	
Unit No.4	Turbine facilities	Turbine inspection †				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection conducted from Jun. 19 to Sep. 30 and to be commenced in January 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. Transportation of rotor into the factory completed on Jun. 11.
		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 stack radiation monitor sampling pipe to be conducted from Oct. 25 to Nov. 12. (incl. restoration work of stack radiation monitor building.)
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jun. 23. Restoration of substructure commenced on Nov. 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 November 16th, 2008 (Sun) to December 13th, 2008 (Sat)

System / Equipment	Items	Nov. 16th (Sun) to Nov. 22nd (Sat)	Nov. 23rd (Sun) to Nov. 29th (Sat)	Nov. 30th (Sun) to Dec. 6th (Sat)	Dec. 7th (Sun) to Dec. 13th (Sat)	Status of Inspection / Restoration	
Unit No.5	Turbine facilities	Turbine inspection <sup>‡</sup>				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.
		500kV power cable inspection					Removal of cables commenced on Jun. 30.
		Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jun. 2. Restoration of substructure to be commenced on Nov. 20.
		Stack inspection					Inspection of stack radiation monitor sampling pipe completed on Nov. 7.
		Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Oct. 25.
Unit No.6	Turbine facilities	Turbine inspection <sup>‡</sup>				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 12.	
	Other facilities	Main transformer inspection					Installation work completed on Nov. 11.
		Reactor internal pump input transformer inspection					Installation work commenced on Mar. 26. Electrical testing to be conducted from Oct. 15 to early December.
		Main generator inspection					Inspection commenced on Mar. 10. Withdrawal of rotor completed on Apr. 3.
		500kV power cable inspection					Inspection completed on Oct. 31.
		Stack inspection					Inspection of stack radiation monitor sampling pipe completed on Nov. 18. Inspection of outdoor duct to be commenced in mid-December.
	Seismic reinforcement	Seismic reinforcement works such as pipe supports					Reinforcement work commenced on Jul. 4.
		Seismic reinforcement works for exhaust stack					Clearance of equipment and materials completed on Nov. 13.
		Seismic reinforcement works for reactor building overhead crane					Preparation for reinforcement work completed on Oct. 30. Reinforcement work commenced on Oct. 31.
		Seismic reinforcement works for fuel handling machine					Reinforcement work commenced on Aug. 22.
Unit No.7	Reactor facilities	Fuel-load work					Fuel-load work completed on Nov. 17. Core status confirmation completed on Nov. 17 and Nov. 18.
		Reactor pressure vessel closure					Closure work to be conducted from Nov. 18 to Nov. 28.
		Reactor containment vessel closure					Closure work to be conducted from Nov. 29 to Dec.5.
	Turbine facilities	Turbine inspection <sup>‡</sup>					High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection is underway. Low-pressure turbine (A) (B) restoration work of blades commenced on Apr. 14. (Replacement of wear and contacted blade.) Low-pressure turbine (A) (B) (C) restoration work of blades on the 15th stage commenced on Aug. 1, and restoration work of blades on the 14th and the 16th stages commenced on Sep. 25. Low-pressure turbine (A) restoration work of blades to be completed on Nov. 21. Low-pressure turbine (A) restoration work of casing to be commenced on Nov. 24.
		Other facilities	Reactor internal pump input transformer inspection				
	Main generator inspection						Restoration work commenced on Jul. 14.
	Stack inspection						Inspection of outdoor duct to be conducted on Dec.1 and Dec.2.
	Verification of system integrity	System functional test					System functional test commenced on Sep. 18. Reactor shut-down margin inspection conducted on Nov. 18. Selected control rod insertion inspection conducted on Nov. 18. Functional test of control rod drive to be conducted on Nov. 23 and Nov. 24. Functional test of reactor containment vessel isolation valve to be conducted on Nov. 24. Functional test of automatic depressurization system to be conducted on Nov. 25.

