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)

	System / Equipment	Items	Nov. 2nd (Sun) to Nov. 8th (Sat) Nov. 9th (Sun) to Nov. 15th (Sat) Nov. 16th (Sun) to Nov. 22nd (San Nov. 23rd (Sun) to Nov. 29th	(Sat Status of Inspection / Restoration
	Reactor facilities	Repair work of steam separator		Preparation for repair work completed on Oct. 29. Repair work to be conducted from Oct. 30 to Nov. 18.
	Turbine facilities	Turbine inspection *	V	Low-pressure turbine (B) internal inspection completed. High-pressure turbine and low pressure turbine (A) (B) (C) detailed inspection to be common 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. Transportation into the factory to be conducted on Nov. 15.
		Excitation transformer inspection		Transportation into the factory is underway.
		Main generator inspection		Inspection commenced on Feb. 7. Withdrawal of rotor completed on Mar. 5.
		Stack inspection (Unit No.1 and 2)		Inspection of pile foundation (additional inspection) completed on Oct. 31. Inspection of stack radiation monitor sampling pipe completed on Oct. 30.
		Main exhaust duct inspection / restoration	▼	Preparation for restoration work commenced on Aug. 9. Restoration of substruction to be commenced on Nov. 10.
		Circulating water pipe inspection		Foundation improvement, excavating work, and inspection of pipes commenced on Aug. 6.
Jnit 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. Transportation into the factory to be conducted on Nov. 15.
		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 substruction to be commenced on Nov. 10.
Jnit No.3	Reactor facilities	Reactor recirculation piping preventive maintenance		Perparation 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	VV	Transportation into the factory is underway. Carrying in to be donducted on Nov. 14. Installation work to be commenced on Nov. 15.
		Excitation transformer inspection		Transportation into the factory is underway. Carrying in to be donducted on Nov. 14. Installation work to be commenced on Nov. 15.
		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 to be conducted from Oct. 14 to late November. (incl. restoration work of stack radiation monito building.)
		Main exhaust duct inspection / restoration	▼	Preparation for restoration work commenced on Jul. 23. Restoration of substruction to be commenced on Nov. 10.
		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 commenced on Oct.20.
Jnit 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 and to be commenced on Janua 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		Preparation for transportation into the factory completed on Nov. 4. Transportation into the factory completed on Nov. 5.
		adjustance speed drive		
		Stack inspection	V	Inspection of stack radiation monitor sampling pipe to be conducted from Oct. 25 to Nov. 12. (incl. restoration work of stack radiation monitor but

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]

System / Equipment	Items	Nov. 2nd (Sun) to Nov. 8th (Sat) Nov. 9th (Sun) to Nov. 15th (S	at) Nov. 16th (Sun) to Nov. 22nd (Sat Nov. 23rd (Sun) to Nov. 29th	h (Sat Status of Inspection / Restoration
Unit No.5 Reactor facilities	Jet pump inspection			Compilation of investigation results completed on Nov.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			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 substruction to be commenced on Nov. 10.
	Stack inspection			Inspection of stack radiation monitor sampling pipe to be conducted from Nov. 6 to Nov. 10.
	Circulating water pipe inspection			Foundation improvement, excavating work, and inspection of pipes commenced on Oct. 25.
Init No.6 Turbine facilities	Turbine inspection *		1	High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on May 12.
Other facilities	Main transformer inspection			Installation work to be conducted from Apr. 30 to Nov. 6.
	House transformer inspection			6A, 6B Installation work completed on Oct 31.
	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 to be conducted from Nov. 7 to Nov. 11.
Seismic reinforcement	Seismic reinforcement works such as pipe supports		 	Reinforcement work commenced on Jul. 4.
	Seismic reinforcement works for the roof truss of the reactor building			Reinforcement work completed on Oct. 24.
	Seismic reinforcement works for exhaust stack			Reinforcement work completed on Oct. 29. Clearance of equipment and materials to be conducted from Oct. 30 to Nov. 14.
	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.
Jnit No.7 Reactor facilities	Reactor head reopening			Reactor head reopening to be conducted from Nov. 2 to Nov. 6.
	Confirmation of the control rod drive coupling			Confirmation by underwater camera to be conducted on Nov. 6 and 7.
	Fuel-load work			Fuel-load work to be conducted from Nov. 8 to Nov. 16.
Turbine facilities	Turbine inspection *			High-pressure turbine (A) (B) restoration work of blades commenced on Apr. 14. (Replacement of wear and contacted blade.) 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 16th stages commenced on Sep. 25. Low-pressure turbine (A) restoration work of blades to be completed on Nov. 10. Low-pressure turbine (A) restoration work of casing to be commenced on Nov. 11.
Other facilities	Reactor internal pump input transformer inspection			Electrical testing completed on Jun. 7. Energization for testing without load to be conducted from Nov. 18 to Nov. 21.
	Main generator inspection			Restration work commenced on Jul. 14.
	500kV power cable inspection			Inspection completed on Oct. 24.
	Stack inspection			Inspection of stack radiation monitor sampling pipe completed on Nov. 3.
Seismic reinforcement	Seismic reinforcement works such as pipe supports			Reinforcement work completed on Nov. 3.
	Seismic reinforcement works for exhaust stack			Reinforcement work completed on Oct. 16. Clearance of equipment and materials completed on Oct. 26.
	Seismic reinforcement works for reactor building overhead crane			Reinforcement work completed on Oct. 27.
	Seismic reinforcement works for fuel handling machine	_		Reinforcement work completed on Nov. 1.
Verification of system integrity				System functional test commenced on Sep. 18. Functional test of the emergency diesel generator, high pressure core flooder system, low pressure flooder system and reactor component cooling was system conducted on Oct. 30 and 31.
				Interlock functional test for reactor protection system conducted on Nov. 1. Functional test for main control room emergency circulation system conducted on Nov. 2.

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]

System / Equipment	Items	Nov. 2nd (Sun) to Nov. 8th (Sat)	Nov. 9th (Sun) to Nov. 15th (Sat)Nov. 16th (Sun) to Nov. 22nd (Sat)Nov. 23rd (Sun) to Nov. 29th (Sat)Nov. 25th	Status of Inspection / Restoration	
ransformer (common) / Switch Yard	High-voltage start-up transformer #3 inspection			Installation work to be conducted from Sep. 6 to Nov. 13. Energization for testing to be conducted on Nov. 14.	
	On-site check / inspection / restoration of the oil protection bank for the transformer			init No.1 Restoration work commenced on Oct. 4. hit No.2 Preparation for restoration work commenced on May 20. Recovery of oil-contaminated soil commenced on Jul. 12. hit No.3 Restoration work commenced on Aug. 2.	
				Unit No.4 Preparation for restoration work to be conducted from Sep. 2 to Nov. 20. Restoration work to be commenced on Nov. 21. Unit No.5 Restoration work commenced on Mg. 27. Scrubbing of soil contaminated by oil leakage commenced on Sep. 16.	
Environmental Facilities	House boilers inspection			(Arahama-side) 1A Inspection to be conducted from Apr. 8 to late December. 2B Inspection commenced on Apr. 8. 3A Inspection commenced on Sep. 9. (Ohminatis-side) 4C Inspection commenced on May 26.	
thers	Restoration work for solid waste storage facility			Drum soundness verification work completed on Mar. 17. Transportation of drums to temporary warehouse commenced on Feb. 6.	
	Restoration work for administration building / information building, etc.			Repair work of the second floor and third floor of information building commenced on Oct. 14.	
	Construction of seismic-isolated essential buildings Outdoor fire protection system piping to be placed above ground, etc. Relocation work of ground motion observation points			Construction commenced on Oct. 14.	
				(Ohminato-side) Work on installing fire protection system piping above ground completed on Jun. 27. (Araham-side) Work on installing fire protection system piping above ground commenced on Apr. 28. Replacement work on the fire protection system piping around the Araham-side building from underground to above ground completed on Jun. 28.	
				Boring work to be commenced on Oct. 20.	
	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.	

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 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.