

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 July 20th, 2008 (Sun) to August 16th, 2008 (Sat)

System / Equipment	Items	Jul. 20th (Sun) to Jul. 26th (Sat)	Jul. 27th (Sun) to Aug. 2nd (Sat)	Aug. 3rd (Sun) to Aug. 9th (Sat)	Aug. 10th (Sun) to Aug. 16th (Sat)	Status of Inspection / Restoration	
Unit No.1	Reactor facilities	Inspection of reactor recirculation piping applicable to the Fitness-for-Service rule				Inspection to be conducted from Jun. 16 to Jul. 24.	
	Turbine facilities	Turbine inspection #1				Low-pressure turbine (B) internal inspection completed.	
	Other facilities	Submerged equipment inspection on ground floor 5 of the reactor combination building					Restoration work commenced on Mar. 17. <Work suspended from Aug. 13 to Aug. 17.>
		Main transformer inspection					On-site transportation completed on Jul. 10.
		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. <Work suspended from Aug. 13 to Aug. 17.>
		500kV power cable inspection					Removal of cables to be conducted from Jul. 7 to mid-September. <Work suspended from Aug. 13 to Aug. 17.>
		Stack inspection (Unit No. 1 / Unit No. 2)					Detailed inspection for top of stack completed on Jun. 28. Inspection of substructure of piles completed on Jul. 7. Internal inspection of stack to be conducted from Jul. 28 to Aug. 8.
Main exhaust duct inspection / restoration					Survey completed on Jun. 6 prior to restoration work.		
Unit No.2	Reactor facilities	Core shroud inspection					Inspection commenced on Jun. 24. <Work suspended from Aug. 13 to Aug. 17.>
		Inspection of new fuel storage warehouse and new fuels in the warehouse					Inspection of new fuel storage warehouse completed on Jul. 1. Inspection of new fuels completed on Jul. 10.
	Turbine facilities	Turbine inspection #1				High-pressure turbine and low-pressure turbine (A) internal inspection completed.	
	Other facilities	Main transformer inspection					On-site transportation completed on Jun. 3.
		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. Withdrawal of rotor completed on Apr. 9. <Work suspended from Aug. 13 to Aug. 17.>
		500kV power cable inspection					Removal of cables completed on Jul. 18.
Main exhaust duct inspection / restoration						Survey completed on Jun. 6 prior to restoration work.	
Unit No.3	Reactor facilities	Core shroud inspection / preventive maintenance				Inspection completed on Jul. 4. Preventive maintenance completed on Jul. 18.	
		Reactor recirculation piping preventive maintenance					Preparation work to be commenced on Jul. 14. <Work suspended from Aug. 13 to Aug. 15.>
	Turbine facilities	Turbine inspection #1					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.) <Work suspended from Aug. 13 to Aug. 17.>
			Other facilities	Main transformer inspection			
	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. 20. Rotor carrying in to be conducted on Aug. 1. <Work suspended from Aug. 13 to Aug. 17.>	
	500kV power cable inspection					Removal of cables completed on Jul. 17.	
	Stack inspection					Detailed inspection for top of stack to be conducted from Jun. 16 to Jul. 24. Internal inspection of stack completed on Jul. 15.	
	Main exhaust duct inspection / restoration					Survey completed on May 30 prior to restoration work. Preparation for restoration work commenced on Jul. 23. <Work suspended from Aug. 13 to Aug. 17.>	
	Circulating water pipe inspection					Foundation improvement, excavating work, and inspection of pipes commenced on Jun. 16. <Work suspended from Aug. 13 to Aug. 17.>	

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 July 20th, 2008 (Sun) to August 16th, 2008 (Sat)

System / Equipment	Items	Jul. 20th (Sun) to Jul. 26th (Sat)	Jul. 27th (Sun) to Aug. 2nd (Sat)	Aug. 3rd (Sun) to Aug. 9th (Sat)	Aug. 10th (Sun) to Aug. 16th (Sat)	Status of Inspection / Restoration	
Unit No.4	Reactor facilities	Inspection of new fuel storage warehouse and new fuels in the warehouse				Inspection of new fuel storage warehouse completed on Jul. 14. New fuels to be inspected from Jul. 15 to Jul. 28.	
	Turbine facilities	Turbine inspection #1				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on Jun. 19. <Work suspended from Aug. 13 to Aug. 17.>	
	Other facilities	Main transformer inspection					Preparation for transportation into the factory commenced on Jun. 2. Coordinating for the start date of transportation into the factory. <Work suspended from Aug. 13 to Aug. 17.>
		House transformer inspection					4A Preparation for transportation into the factory commenced on Jul. 10. 4B Preparation for transportation into the factory commenced on Jul. 22. Coordinating for the start date of transportation into the factory. <Work suspended from Aug. 13 to Aug. 17.>
		Excitation transformer inspection					Preparation for inspection completed on Jul. 21. Internal inspection completed on Jul. 23. Preparation for transportation into the factory to be commenced on Jul. 24. Coordinating for the start date of transportation into the factory. <Work suspended from Aug. 13 to Aug. 17.>
		Main generator inspection					Inspection commenced on Jan. 15. Transportation of rotor into the factory completed on Jun. 11. <Work suspended from Aug. 13 to Aug. 17.>
		500kV power cable inspection					Removal of cables to be conducted from Jul. 10 to Aug. 11.
		Stack inspection					Inspection for substructure of piles commenced on Jul. 1. <Work suspended from Aug. 9 to Aug. 17.>
		Main exhaust duct inspection / restoration					Survey completed on Jun. 20 prior to restoration work. Preparation for restoration work commenced on Jun. 23. <Work suspended from Aug. 13 to Aug. 17.>
Unit No.5	Reactor facilities	Jet pump inspection				Root-cause analysis is under consideration.	
		Inspection of new fuel storage warehouse and new fuels in the warehouse				Inspection of new fuel storage warehouse completed on Jul. 7. Inspection of new fuels completed on Jul. 15.	
	Turbine facilities	Turbine inspection #1				High-pressure turbine and low-pressure turbine (A) internal inspection completed.	
	Other facilities	Main transformer inspection					Preparation for on-site transportation to be conducted from May 14 to Aug. 4. On-site transportation to be conducted on Aug. 5. <Work suspended from Aug. 13 to Aug. 17.>
		House transformer inspection					Transportation into the factory is underway.
		Excitation transformer inspection					Transportation into the factory is underway.
		Main generator inspection					Rotor carrying in completed on Apr. 24. <Work suspended from Aug. 13 to Aug. 17.>
		500kV power cable inspection					Removal of cables commenced on Jun. 30. <Work suspended from Aug. 13 to Aug. 17.>
		Stack inspection					Inspection for substructure of piles commenced on Jun. 23. <Work suspended from Aug. 9 to Aug. 17.>
Main exhaust duct inspection / restoration					Preparation for restoration work commenced on Jun. 2. Restoration work to be commenced on Aug. 4. <Work suspended from Aug. 13 to Aug. 15.>		
Unit 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 commenced on Apr. 30. <Work suspended from Aug. 12 to Aug. 17.>
		House transformer inspection					6A, 6B Installation work commenced on Apr. 14. <Work suspended from Aug. 9 to Aug. 17.>
		Reactor internal pump input transformer inspection					Installation work commenced on Mar. 26. <Work suspended from Aug. 9 to Aug. 17.>
		Main generator inspection					Inspection commenced on Mar. 10. Withdrawal of rotor completed on Apr. 3. <Work suspended from Aug. 13 to Aug. 17.>
		500kV power cable inspection					Inspection commenced on Feb. 9. Energization for testing without load completed on Apr. 12. <Work suspended from Aug. 13 to Aug. 17.>
		Discharge canal inspection / restoration					Internal inspection of discharge canal and restoration work completed on Jul. 26. Removal of bypass pipe commenced on Jul.10. <Work suspended from Aug. 13 to Aug. 17.>
	Seismic reinforcement	Seismic reinforcement works such as pipe supports				Preparation works such as carrying in materials and installing scaffolds carried out from Jun. 2. Reinforcement works for pipe supports commenced on Jul. 4. <Work suspended from Aug. 13 to Aug. 17.>	

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 July 20th, 2008 (Sun) to August 16th, 2008 (Sat)

System / Equipment	Items	Jul. 20th (Sun) to Jul. 26th (Sat)	Jul. 27th (Sun) to Aug. 2nd (Sat)	Aug. 3rd (Sun) to Aug. 9th (Sat)	Aug. 10th (Sun) to Aug. 16th (Sat)	Status of Inspection / Restoration
Unit No.7	Reactor facilities	Reactor-well inspection				Repair of lining completed on Feb. 26. (Vacuum work is still underway.)
	Turbine facilities	Turbine inspection #1				High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection is underway.
						Low-pressure turbine (A) (B) restoration work of blade commenced on Apr. 14. (Replacement of wear and contacted blade.)
	Other facilities	Main transformer inspection				Installation work commenced on Apr. 10. <Work suspended from Aug. 9 to Aug. 17.>
		House transformer inspection				7B Installation work commenced on Mar. 24. 7A Installation work commenced on Apr. 11. <Work suspended from Aug. 10 to Aug. 17.>
		Reactor internal pump input transformer inspection				Electrical testing completed on Jun. 7. Coordinating for the start date of energization for testing without load.
		Main generator inspection				Restoration work commenced on Jul. 14. <Work suspended from Aug. 13 to Aug. 17.>
		500kV power cable inspection				Inspection commenced on Jan. 22. Energization for testing without load completed on Mar. 22. <Work suspended from Aug. 13 to Aug. 17.>
Discharge canal inspection / restoration					Internal inspection of discharge canal and restoration work completed on Jun. 7.	
					Removal of bypass pipe commenced on Jun. 18. <Work suspended from Aug. 13 to Aug. 17.>	
Seismic reinforcement	Seismic reinforcement works such as pipe supports				Preparation works such as carrying in materials and installing scaffolds carried out from Jun. 2.	
	Reinforcement works for pipe supports commenced on Jun. 16.					
Transformer (common) / Switch Yard	High-voltage start-up transformer #3 inspection				Reinforcement works for the roof truss of the reactor building commenced on Jul. 14.	
					Transportation into the factory is underway.	
	On-site check / inspection / restoration of the oil protection bank for the transformer				Unit No.3 Preparation for restoration work to be conducted from Feb. 12 to Jul. 31. Unit No.3 Restoration work to be commenced on Aug. 20.	
					Unit No.2 Preparation for restoration work commenced on May 20. Unit No.2 Recovery of oil-contaminated soil commenced on Jul. 12.	
Environmental Facilities	House boilers inspection				Unit No.5 Preparation for restoration work commenced on Jun. 3.	
					Unit No.6 Restoration work commenced on Jun. 24.	
					Unit No.1 Preparation for restoration work commenced on Jul. 7. Unit No.1 Recovery of oil-contaminated soil to be commenced on Jul. 29. <Work suspended from Aug. 13 to Aug. 17.>	
	Restoration work for filtrate tank #3 and #4				(Arahama-side) 1A, 2A, 2B: Restoration work commenced on Apr. 8.	
					(Ohminato-side) 4A: Inspection completed on Jun. 20. 4C: Inspection commenced on May 26. <Work suspended from Aug. 13 to Aug. 17.>	
Others	Restoration work for solid waste storage facility				No.3 Restoration work commenced on Jun. 2. No.3 Water leakage test completed on 17. <Work suspended from Aug. 13 to Aug. 17.>	
	Inspection of spent fuel transportation cask storage facility				Drum soundness verification work completed on Mar. 17. Transportation of drums to temporary warehouse commenced on Feb. 6. <Work suspended from Aug. 13 to Aug. 17.>	
	Restoration work for administration building / information building, etc.				Inspection for substructure of piles to be commenced on Jul. 25. <Work suspended from Aug. 9 to Aug. 17.>	
	Construction of seismic-isolated essential buildings				Repair work of the second floor of the administrative building and the first and second floors of information building is underway. <Work suspended from Aug. 13 to Aug. 17.>	
	Outdoor fire protection system piping to be placed above ground, etc.				Site preparation work commenced on Jun. 23. <Work suspended from Aug. 12 to Aug. 17.>	
	Restoration and reinforcement work for the on-site / outside roads & slope, etc.				(Ohminato-side) Work on installing fire protection system piping above ground completed on Jun. 27.	
	Restoration work for port facility				(Arahama-side) Work on installing fire protection system piping above ground commenced on Apr. 28. Replacement work on the fire protection system piping around the Arahama-side building from underground to above ground completed on Jun. 28. <Work suspended from Aug. 9 to Aug. 17.>	
	Restoration work for roads inside and outside of the site currently in progress. Reinforcement work commenced on May 16. <Work suspended from Aug. 13 to Aug. 17.>					
	Restoration work on the wharf to be conducted from Mar. 17 to Aug. 8. Restoration work for bank protection commenced on Apr. 3. <Work suspended from Aug. 13 to Aug. 17.>					

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 "Bon Holiday".

*1 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.