

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 6th, 2008 (Sun) to February 2nd, 2008 (Sat)

System/Equipment	Items	Jan. 6th (Sun) to Jan. 12th (Sat)	Jan. 13th (Sun) to Jan. 19th (Sat)	Jan. 20th (Sun) to Jan. 26th (Sat)	Jan. 27th (Sun) to Feb. 2nd (Sat)	Status of Inspection/Restoration		
Unit No.1	Reactor facilities	Refueling floor service tools inspection (stud tensioners, etc.)					Coordinating for the start date of inspection.	
		Reactor pressure vessel inspection	preparation					Preparation for inspection of Nozzle parts etc. planned from Nov. 28 to Jan. 22.
			inspection					Inspection of nozzle parts etc. planned from Jan. 10 to Jan. 30.
	Pressure suppression chamber inspection	preparation						Preparation for pressure suppression chamber inspection planned from Jan. 15 to Jan. 26.
		inspection						Inspection to be commenced on Jan. 28.
	Turbine facilities	Turbine internal inspections *2					Low pressure turbine (B) internal inspection completed on Nov. 30.	
	Other facilities	Submerged equipment inspection on ground floor 5 of the reactor combination building						Provisional restoration of low conductivity waste system (A) completed on Oct. 15, and (B) completed on Dec. 17. Provisional restoration of high conductivity waste system (A) completed on Nov. 9, and (B) completed on Dec. 26. Provisional restoration of storm drain system (B) completed on Dec. 18, and (A) completed on Dec. 25.
		Main transformers inspection (preparation for transportation into the factory)						Inspection completed on Nov. 23. Preparation for transportation into the factory planned from Oct. 29 to Dec. 28. Coordinating for the start date of transportation.
		Main generator inspection						Inspection to be commenced on Jan. 21.
Unit No.2	Reactor facilities	Fuel/control rod inspection					Inspection planned from Nov. 27 to Nov. 30, and from Dec. 25 to mid-February.	
	Turbine facilities	Turbine internal inspections *2					High pressure turbine and low pressure turbine (A) internal inspection completed on Dec. 21.	
		Restoration for the blowout panel of turbine building					Provisional restoration completed. Restoration work commenced on Oct. 9. Work suspended from Nov. 9 due to turbine inner inspection.	
	Other facilities	Main transformers inspection (preparation for transportation into the factory)						Preparation for transportation into the factory completed on Dec. 28. Coordinating for the start date of transportation.
		House transformers inspection (preparation for transportation into the factory)						2A Inspection completed on Nov. 13. 2B Inspection completed on Nov. 19. Coordinating for the start date of transportation into the factory.
		Excitation transformers inspection (preparation for transportation into the factory)						Inspection completed on Dec. 6. Coordinating for the start date of transportation into the factory.
Unit No.3	Reactor facilities	Restoration for the blowout panel of reactor building					Provisional restoration completed. Survey for restoration completed on Oct. 30. Work suspended from Oct. 29 due to reactor head opening work. Coordinating for the start date of restoration work.	
		Reactor head opening					Reactor head opening work completed on Jan. 8. Equipment temporary storage pool and reactor-well filled up with water on Jan. 8.	
		In-core inspection					Inspection of spent fuel pool rack hangers, etc. completed on Jan. 7. In-core inspection commenced on Jan. 9. Phase1 and 2*1 inspection planned from Jan. 21 to Feb. 5.	
		Reactor pressure vessel inspection preparation						Preparation for inspection of nozzle parts etc. to be commenced on Jan. 21.
		Inspection of reactor recirculation piping applicable to the Fitness-for-Service rule						Inspection to be commenced on Jan. 22.
	Turbine facilities	Turbine internal inspections *2					High pressure turbine and low pressure turbine (A) internal inspection completed on Dec. 14.	
		Restoration for the blowout panel of turbine building					Provisional restoration completed. Restoration work commenced on Oct. 29. Work suspended from Nov. 17 due to turbine inner inspection.	
	Other facilities	Main transformers inspection (preparation for transportation into the factory)						Inspection completed on Oct. 26. Preparation for transportation into the factory completed on Nov. 26. Coordinating for the start date of transportation into the factory.
		House transformers inspection (preparation for transportation into the factory)						3A Inspection completed on Oct. 22. Coordinating for start date of transportation into the factory. * 3B Transportation completed on Sept. 20.
		Excitation transformers inspection (preparation for transportation into the factory)						Inspection completed on Nov. 3. Coordinating for the start date of transportation into the factory.
	Unit No.4	Reactor facilities	In-core inspection	preparation				
inspection								Phase1 & 2*1 inspection planned from Dec. 22 to Jan. 17. Phase3*1 inspection planned from Jan. 21 to Feb. 5.
Reactor pressure vessel inspection		preparation						Preparation for inspection of nozzle parts etc. to be commenced on Jan. 16.
		inspection						Inspection of nozzle parts etc. planned from Dec. 8 to Dec. 18, and from Jan. 28.
Turbine facilities		Turbine internal inspections *2					High pressure turbine and low pressure turbine (A) internal inspection completed on Dec. 14.	
Other facilities		Main transformers inspection (preparation for transportation into the factory)						Inspection completed on Dec. 13. Preparation for transportation into the factory conducted from Dec. 14 to Dec. 27. Coordinating for start date of transportation into the factory.
		House transformers inspection						4A, 4B Coordinating for the start date of inspection.
		Excitation transformers inspection						Coordinating for the start date of inspection.
	Main generator inspection						Inspection to be commenced on Jan. 15.	

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 6th, 2008 (Sun) to February 2nd, 2008 (Sat)

System/Equipment	Items	Jan. 6th (Sun) to Jan. 12th (Sat)	Jan. 13th (Sun) to Jan. 19th (Sat)	Jan. 20th (Sun) to Jan. 26th (Sat)	Jan. 27th (Sun) to Feb. 2nd (Sat)	Status of Inspection/Restoration	
Unit No.5	Reactor facilities	Reactor pressure vessel inspection	preparation			Preparation for inspection of nozzle parts etc. planned from Dec. 14 to Jan. 11.	
			inspection			Inspection of nozzle parts etc. planned from Dec. 14 to Jan. 16.	
		Jet pump inspection				Visual inspection to be conducted on Jan. 18 prior to disassembly. Coordinating for the start date of disassembly.	
	Turbine facilities	Turbine internal inspections *2				High pressure turbine and low pressure turbine (A) internal inspection completed on Dec. 14.	
	Other facilities	Main transformers inspection (preparation for transportation into the factory)					Inspection completed on Nov. 29. Preparation for transportation into the factory conducted from Nov. 30 to Dec. 25. Coordinating for the start date of transportation into the factory.
		House transformers inspection					5A, 5B Coordinating for the start date of inspection.
		Excitation transformers inspection					Coordinating for the start date of inspection.
Main generator inspection						Inspection commenced on Nov. 3. Transportation of rotor into the factory completed Dec. 1.	
Unit No.6	Reactor facilities	In-core inspection	preparation			Phase 3*1 preparation for inspection completed on Jan. 9.	
			inspection			Phase 1 & 2*1 inspection completed on Dec. 27. Phase 3*1 inspection planned from Jan. 10 to Jan. 28.	
	Turbine facilities	Turbine internal inspections *2				High pressure turbine and low pressure turbine (A) internal inspection completed on Oct. 25.	
	Other facilities	Main transformers inspection					Transportation into the factory completed on Oct. 31.
		House transformers inspection					Transportation into the factory completed on Oct. 25.
		Reactor internal pump input transformer inspection					Two units carried out to the factory on Nov. 20. Two units carried out to the factory on Dec. 3 (total of 4 units).
		Discharge canal inspection / restoration	preparation				Discharge canal inspection completed on Sept. 29. Maintenance method under consideration. Preparation for maintenance commenced on Dec. 3.
Unit No.7	Reactor facilities	Fuel/control rod inspection				Inspection planned from Nov. 19, Nov. 20, Dec. 4, Dec. 5, and from Jan. 23 to mid-February. *3	
		Reactor-well inspection				Inspection and provisional restoration completed on Nov. 15. (Reactor well is currently full.) (Vacuum work is still underway.) Lining to be repaired planned from Jan.18 to end of February.	
	Turbine facilities	Turbine internal inspections *2				High pressure turbine and low pressure turbine (A) (B) (C) detailed inspection commenced on Dec. 1.	
	Other facilities	Main transformers inspection					Transportation into the factory completed on Oct. 25.
		House transformers inspection					7A, 7B Transportation into the factory completed on Dec. 6.
		Reactor internal pump input transformer inspection					Two units carried out to the factory on Nov. 19. Two units carried out to the factory on Nov. 24. (total of 4 units).
		Main generator inspection					Inspection commenced on Nov. 2. Withdrawal of the rotor completed on Nov. 20.
		500kV power cable inspection					Inspection to be commenced on Jan. 22.
Discharge canal inspection / restoration	preparation				Discharge canal inspection completed on Oct. 10. Maintenance method under consideration. Preparation for maintenance commenced on Dec.3.		
Transformer (common)/Switch Yard	High-voltage start-up transformer #1 inspection					Work for installation commenced on Dec. 7.	
	On-site check / inspection / restoration of the oil protection bank for the transformer					Provisional restoration completed on Sept. 20. Unit No.7 Restoration work commenced on Dec. 25.	
Environmental Facilities	Inspection of house boilers					House boiler (Arahama-side) 1A, 2A, 2B: Inspection underway. (Ohminato-side) 4A: Inspection underway. 4B: Inspection completed on Oct. 23.	
Solid Waste Storage Facility	Restoration work					Drum soundness verification work commenced on Oct. 9. Drums to be transferred to temporary warehouse from Jan. 23.	
Others	Restoration work for administration building / information building, etc.					Repair work of the second floor of the administrative building, and the first and second floors of information building underway.	
	Restoration work for the on-site / outside roads & slope, etc.					Restoration of the slope completed on Oct. 22. Restoration work for roads inside and outside of the site currently in progress.	
	Replacement of seismic data recorders					Unit No.1 Replacement completed on Dec. 27. Unit No.5 and 6 Replacement planned from Jan. 7 to Feb. 8.	
	Outdoor fire protection system piping to be placed above ground, installation of fire protection tank, etc.					Site inspection commenced on Dec.25. Fire protection tank to be installed from mid-February.	

※ 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.

*1 Phase 1: Inspection for the upper part of reactors, Phase 2: Inspection for the middle part (reactor core) of the reactor, Phase 3: Inspection for the bottom part of the reactor.

*2 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.

*3 Revised on Feb. 22, 2008: only preparation works were conducted on Nov. 17 and 18.

To be corrected: To be inspected from Nov. 17 to Nov. 20, Dec. 4, Dec. 5 and from Jan. 23 to Feb. 22.