

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)(1/4)

【Inspection/Restoration Status】

◆From December 16th, 2007 (Sun) to January 12th, 2008 (Sat)

System/Equipment		Items	Dec. 16th (Sun) to Dec. 22nd (Sat)	Dec. 23rd (Sun) to Dec. 29th (Sat)	Dec. 30th (Sun) to Jan, 5th (Sat)	Jan. 6 (Sun) to Jan. 12th (Sat)	Status of Inspection/Restoration		
Unit No.1	Relating to the Open Inspection of Reactors	Refueling floor service tools inspection (stud tensioners, etc.)					Coordinating for the start date of inspection.		
		In-core inspection					Phase3* ¹ inspection completed on Dec. 14.		
		Reactor pressure vessel inspection preparation						Preparation for inspection of Nozzle parts etc. planned from Nov. 28 to Jan. 22. <Work suspended from Dec. 28 to Jan. 6>	
		inspection					Inspection of nozzle parts etc. to be commenced on Jan. 10.		
	Relating to the Open Inspection of Turbine	Turbine internal inspections * ²					Low pressure turbine (B) casing opening and internal inspection completed on Nov. 30.		
	Restoration/Inspection of Equipments	Submerged equipment inspection on ground floor 5 of the reactor combination building						Low conductivity waste system (A) provisional restoration completed on Oct. 15. High conductivity waste system (A) provisional restoration completed on Nov. 9. Storm drain system (B) provisional restoration completed on Dec. 18. Storm drain system (A) restoration work is still underway. <Work suspended from Dec. 29 to Jan. 6>	
		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	Relating to the Open Inspection of Reactors	In-core inspection inspection						Phase3* ¹ inspection planned from Dec. 3 to Dec. 25. Inspection for spent fuel pool hangers, etc. completed on Dec. 7 and 8.
			Fuel/control rod inspection						Inspection planned from Nov. 27 to Nov. 30, and from Dec. 25 to mid-February. <Work suspended from Dec. 29 to Jan. 6>
Reactor pressure vessel inspection preparation								Preparation for inspection of nozzle parts etc. planned from Nov. 13 to Dec. 25.	
		inspection						Inspection of Nozzle parts etc. planned from Dec. 14 to Dec. 26.	
Relating to the Open Inspection of Turbine		Turbine internal inspections * ²						High pressure turbine and low pressure turbine (A) casing opening and internal inspection planned from Nov. 28 to Dec. 21.	
Restoration/Inspection of Equipments		Main transformers inspection (preparation for transportation into the factory)						Preparation for transportation into the factory planned from Nov. 1 to 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.		
		Excitation transformers inspection (preparation for transportation into the factory)					Inspection completed on Dec. 6. Coordinating for the start date of transportation.		
	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.			

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) (2/4)

【Inspection/Restoration Status】

◆From December 16th, 2007 (Sun) to January 12th, 2008 (Sat)

System/Equipment	Items	Dec. 16th (Sun) to Dec. 22nd (Sat)	Dec. 23rd (Sun) to Dec. 29th (Sat)	Dec. 30th (Sun) to Jan. 5th (Sat)	Jan. 6 (Sun) to Jan. 12th (Sat)	Status of Inspection/Restoration		
Unit No.3	Relating to the Open Inspection of Reactors	Refueling machine inspection					Inspection completed on Dec. 18.	
		Refueling floor service tools inspection (stud tensioners, etc.)					Inspection planned from Oct. 24 to Dec. 22.	
		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 start date of restoration work .	
		Reactor head opening						Reactor head opening work planned from Dec. 24 to Jan. 8. <Work suspended from Dec. 28 to Jan. 3>
		In-core inspection						Inspection for spent fuel pool rack hangers, etc. planned from Dec. 21 to Dec. 28. Inspection to be commenced on Jan. 9. Phase1 and 2* ¹ inspection to be commenced on Jan. 21.
		Reactor pressure vessel inspection preparation						Preparation for inspection of Nozzle parts etc. to be commenced on Jan. 16.
	Relating to the Open Inspection of Turbine	Turbine internal inspections * ²					High pressure turbine and low pressure turbine (A) casing opening and internal inspection completed on Dec. 14.	
	Restoration/Inspection of Equipments	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 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 start date of transportation into the factory.	
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.		
Unit No.4	Relating to the Open Inspection of Reactors	Refueling machine inspection					Inspection completed on Dec. 10.	
		Reactor head opening					Equipment temporary strage pool and reactor-well filled up with water on Dec. 9. Reactor head opening work completed on Dec. 10.	
		In-core inspection inspection						Inspection to be commenced on Dec. 11. Inspection for spent fuel pool rack hangers, etc. completed on Dec. 12. Phase1 & 2* ¹ inspection planned from Dec. 22 to Jan. 17. <Work suspended from Dec. 29 to Jan. 6>
		Reactor pressure vessel inspection preparation						Preparation for inspection of nozzle parts etc. to be commenced on Dec. 16.
		Reactor pressure vessel inspection inspection						Inspection of nozzle parts etc. planned from Dec. 8 to Dec. 18, and from late January.
	Relating to the Open Inspection of Turbine	Turbine internal inspections * ²					High pressure turbine and low pressure turbine (A) casing opening and internal inspection completed on Dec. 14.	
	Restoration/Inspection of Equipments	Main transformers inspection (preparation for transportation into the factory)						Inspection completed on Dec. 13. Preparation for transportation into the factory planned from Dec. 14 to Dec. 24. Coordinating for start date of transportation into the factory.
		House transformers inspection						4A, 4B Coordinating for start date of inspection.
		Excitation transformers inspection						Coordinating for start date of inspection.
		Main generator inspection						Inspection to be commenced on Jan. 21.

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) (3/4)

【Inspection/Restoration Status】

◆From December 16th, 2007 (Sun) to January 12th, 2008 (Sat)

System/Equipment		Items	Dec. 16th (Sun) to Dec. 22nd (Sat)	Dec. 23rd (Sun) to Dec. 29th (Sat)	Dec. 30th (Sun) to Jan, 5th (Sat)	Jan. 6 (Sun) to Jan. 12th (Sat)	Status of Inspection/Restoration	
Unit No.5	Relating to the Open Inspection of Reactors	In-core inspection preparation					Phase3* ¹ preparation for inspection completed on Dec. 12. In-core inspection commenced on Oct. 30. Phase1 & 2* ¹ inspection completed on Dec. 6. Phase3* ¹ inspection planned from Dec. 13 to Dec. 27.	
		inspection						
	Relating to the Open Inspection of Reactors	Reactor pressure vessel inspection preparation						Preparation for inspection of nozzle parts etc. commenced on Dec. 14. <Work suspended from Dec. 29 to Jan. 6> Inspection of nozzle parts etc. commenced on Dec. 14. <Work suspended from Dec. 29 to Jan. 6>
		inspection						
	Relating to the Open Inspection of Turbine	Turbine internal inspections* ²						High pressure turbine and low pressure turbine (A) casing opening and internal inspection completed on Dec. 14.
	Restoration/Inspection of Equipments	Main transformers inspection (preparation for transportation into the factory)						Inspection completed on Nov. 29. Preparation for transportation into the factory completed on Dec. 15. Coordinating for start date of transportation into the factory.
		House transformers inspection						5A, 5B Coordinating for the start date of inspection.
		Excitation transformers inspection						Coordinating for start date of inspection.
		Main generator inspection						Inspection commenced on Nov. 3. Transportation of roter into the factory completed Dec. 1. <Work suspended from Dec. 28 to Jan. 6>
	Unit No.6	Relating to the Open Inspection of Reactors	In-core inspection preparation					Phase3* ¹ preparation for inspection due to be commenced on Dec. 22. <Work suspended from Dec. 29 to Jan. 6> Inspection commenced on Nov. 13. Withdrawal of two control rods that experienced separation completed on Nov. 27. Control rod mechanism due to be disassembled and inspected from Dec. 1. Phase 1 & 2* ¹ inspection planned from Dec. 4 to Dec. 27. Phase 3* ¹ inspection planned from Jan. 10 to Jan. 28.
inspection								
Relating to the Open Inspection of Reactors		Reactor pressure vessel inspection preparation						Preparation for inspection of nozzle parts etc. completed on Dec. 7. Inspection of nozzle parts etc. due completed on Dec. 18.
		inspection						
Relating to the Open Inspection of Turbine		Turbine internal inspections * ²						High pressure turbine and low pressure turbine (A) internal inspection completed on Oct. 25.
Restoration/Inspection of Equipments		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						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 inspetion/restoration preparation						Discharge canal inspection completed on Sept. 29. Maintenance method under consideration. Preparation for maintenance commenced on Dec. 3. <Work suspended from Dec. 27 to Jan. 6>

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) (4/4)

【Inspection/Restoration Status】

◆From December 16th, 2007 (Sun) to January 12th, 2008 (Sat)

System/Equipment	Items	Dec. 16th (Sun) to Dec. 22nd (Sat)	Dec. 23rd (Sun) to Dec. 29th (Sat)	Dec. 30th (Sun) to Jan. 5th (Sat)	Jan. 6 (Sun) to Jan. 12th (Sat)	Status of Inspection/Restoration	
Unit No.7	Relating to the Open Inspection of Reactors	In-core inspection preparation				Phase3* ¹ preparation for inspection completed on Dec. 9.	
		inspection					Disassembling and inspection of control rod mechanism mechanism completed on Nov. 19. Phase1 & 2* ¹ inspection completed on Nov. 30. Phase3* ¹ inspection planned from Dec. 10 to Dec 26.
		Fuel/control rod inspection					Control rod to be inspected from Nov. 17 to Nov. 20, and after completion of the Phase 3* ¹ inspection. Fuel to be inspected from on Dec. 4 and 5, and after completion of the Phase 3* ¹ inspection.
		Reactor pressure vessel inspection preparation					Preparation for inspection of nozzle parts etc. completed on Dec.7.
		inspection				Inspection of nozzle parts etc. completed on Dec. 14.	
		Reactor-well inspection					Inspection and provisional restoration completed on Nov. 15. (Reactor well is currently full.) Restoration method under consideration. (Vacuum work is still underway.)
	Relating to the Open Inspection of Turbine	Turbine internal inspections * ²					High pressure turbine and low pressure turbine (A) casing opening and internal inspection completed on Nov. 30. High pressure turbine and low pressure turbine (A) (B) (C) detailed inspection commenced on Dec. 1. <Work suspended from Dec. 29 to Jan. 6>
	Restoration/Inspection of Equipments	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					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. <Work suspended from Dec. 28 to Jan. 6>
Discharge canal inspetion/restoration							Discharge canal inspection completed on Oct. 10. Maintenance method under consideration. Preparation for maintenance commenced on Dec.3. <Work suspended from Dec. 27 to Jan. 6>
Transformer (common)/Switch Yard	High-voltage start-up transformer #1inspection						Work of carrying in completed on Dec. 6. Work for installation commenced on Dec. 7. <Work suspended from Dec. 29 to Jan. 6>
	On-site check & inspection of the oil protection bank for the transformer						Provisional restoration completed on Sept. 20. Unit No.7 restoration work to be commenced on Dec. 25. <Work suspended from Dec. 30 to Jan. 6>
	Inspection of the Minami Niigata trunk line #2 bushing						Inspection planned from Nov. 23 to Dec. 23. Planned to receive power on Dec. 23.
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. <Work suspended from Dec. 29 to Jan. 6>
Solid Waste Storage Facility	Restoration work						Drum soundness verification work commenced on Oct. 9. <Work suspended from Dec. 28 to Jan. 6>
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. <Work suspended from Dec. 29 to Jan. 6>
	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. <Work suspended from Dec. 29 to Jan. 6>
	Replacement of seismic data recorders						Unit No.1, 5, and 6 Replacement planned from Dec. 11 to Feb. 8. <Work suspended from Dec. 29 to Jan. 6>

※ 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.

*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.

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