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]

	System/Equipment	Items		Nov. 25th (Sun) to Dec. 1st (Sat)	Dec. 2nd (Sun) to Dec. 8th (Sat)	Dec. 9th (Sun) to Dec. 15th (Sat)	Dec. 16th (Sun) to Dec. 22nd (Sat)	Status of Inspection/Restoration
I F I F	Relating to the Open	Refueling machine inspection						Inspection completed on Nov. 15.
	Inspection of Reactors	Refueling floor service tools inspection (setc.)	stud tensioners,					Coordinating for start date of inspection.
		In-core inspection	preparation					Phase3 ^{*1} inspection preparation completed on Oct. 25.
			inspection					Phase3 ^{*1} inspection planned from Nov. 26 to Dec. 11.
		Reactor pressure vessel inspection	preparation					Preparation for inspection of Nozzle parts etc. commenced on Nov. 28.
			inspection					Inspection of support structure (foundation bolts and sway brace) completed on No
	Relating to the Open Inspection of Turbine	Turbine internal inspections *2						Low pressure turbine (B) casing opening and internal inspection planned from Nov to Nov. 30.
	Restoration/Inspection of	Submerged equipment inspection on grou	and floor 5 of					LCW(A) partial restoration completed on Oct. 15. HCW(A) partial restoration completed on Nov. 9.
	Equipments	the reactor combination building						SD(A) and (B) currently partially restored.
		Main transformers inspection (oil extraction/internal inspection)	preparation					Preparation to be transported into the factory commenced on Oct. 29.
		(on extraction/methal inspection)	inspection					Inspection completed on Nov. 23.
		Main exhaust duct inspection						Inspection for leakage due to the increased number of operating HVACs complete Nov. 28. (Restoration to normal operating mode.)
		Skimmer surge tank inspection						Search and recovery of a red boot in the skimmer surge tank completed on Nov. 2
t No.2	Relating to the Open Inspection of Reactors		preparation					Phase3 ^{*1} Preparation for inspection planned from Nov. 16 to Dec. 2.
I			inspection					Phase1 ^{*1} & Phase2 ^{*1} inspection commpleted on Nov. 19. Phase3 ^{*1} inspection plan from Dec. 3 to Dec. 18.
		Fuel, control rod inspection						Inspection to be conducted from Nov. 27 to Nov. 30, and after completion of Phas in-core inspection.
			preparation					Nozzle parts etc. to be prepared from Nov. 14.
			inspection					Support structure (foundation bolts and sway brace) inspection completed on Nov. Inspection of Nozzle parts etc. due to be commenced on Dec. 14.
	Relating to the Open Inspection of Turbines	Turbine internal inspections *2						High pressure turbine and low pressure turbine (A) casing opening and internal inspection planned from Nov. 28 to late December.
	Equipments	Main transformers inspection (preparatio transportation into the factory)	n for					Preparation to be transported into the factory commenced on Nov. 1.
E		House transformers inspection (visual ins	spection) inspection					2A Inspection completed on Nov. 8. 2B Inspection completed on Nov. 17.
		(oil extraction/internal inspection)	preparation					2A Preparation completed on Nov. 9. 2B Preparation completed on Nov. 16.
			inspection					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 (visua	l inspection) preparation					Preparation completed on Nov. 15.
			inspection					Inspection completed on Nov. 17.
		(oil extraction/internal inspection)	preparation					To be prepared from Nov. 16 to Nov. 30.
			inspection		/			Inspection planned on Dec. 1.
		Restoration for the blowout panel of turb	ine 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 November 25th, 2007 (Sun) to December 22nd, 2007 (Sat)

2	System/Equipment	Items	Nov. 25th (Sun) to Dec. 1st (Sat)	Dec. 2nd (Sun) to Dec. 8th (Sat)	Dec. 9th (Sun) to Dec. 15th (Sat)	Dec. 16th (Sun) to Dec. 22nd (Sat)	
Unit No.3	Relating to the Open Inspection of Reactors	Refueling machine inspection					Inspection planned from
	inspection of Reactors	Refueling floor service tools inspection (stud tensioners, etc.)					Inspection planned from
		Restoration for the blowout panel of reactor building					Provisional restoration co Coordinating for start dat
		Reactor pressure vessel inspection					Inspection of support stru 12.
	Relating to the Open Inspection of Turbines	Turbine internal inspections *2					High pressure turbine and inspection planned from N
	Restoration/Inspection of Equipments	Main transformers inspection (preparation for tranportation into the factory)					Inspection completed on 0 completed on Nov. 26.
	Equipments	House transformers inspection (oil extraction/internal inspection)					3A Inspection completed the dactory.* 3B Transportation completed to the dactory.
		Excitation transformers inspection (oil extraction/ internal inspection)					Inspection completed on I dactory.
		Restoration for the blowout panel of turbine building					Provisional restoration co Work suspended from No
		Removal of spent fuel pool underwater work platform					Work planned from Dec.
Unit No.4	Inspection of Reactors	Refueling machine inspection					Inspection planned from (
		Refueling floor service tools inspection (stud tensioners, etc.)					Inspection planned from
		Reactor head opening					Reactor head opening wo
		In-core inspection inspection					Inspection to be commend Dec. 22. Inspection commenced or
]		Reactor pressure vessel inspection inspection					Inspection commenced of Inspection of support stru- 12. Nozzle parts etc. to be ins
	Relating to the Open Inspection of Turbines	Turbine internal inspections *2					High pressure turbine and inspection planned from 1
	Restoration/Inspection of Equipments	Main transformers inspection (oil extraction/internal inspection) preparation inspection					Preparation planned from the factory planned from Inspection planned from l
		House transformers inspection					4A, 4B Coordinating for
		Excitation transformers inspection					Coordinating for start date
		Removal of spent fuel pool underwater work platform					Work planned from Nov.

Status of Inspection/Restoration
m Nov. 12 to Dec. 18.
n Oct. 24 to late December.
completed. Survey for restoration completed on Oct. 30. date of restoration work.
tructure (foundation bolts and sway brace) completed on Nov.
nd low pressure turbine (A) casing opening and internal n Nov. 21 to Dec. 14.
on Oct. 26. Preparation for transportation into the factory
ted on Oct. 22. Coordinating for start date of transportation into
mpleted on Sept. 20.
n Nov. 3. Coordinating for start date of transportation into the
completed. Restoration work commenced on Oct. 29. Nov. 17 due to turbine inner inspection.
uc. 3 and Dec. 4.
n Oct. 24 to Dec. 10.
m Oct. 9 to Dec. 3.
work planned from Dec. 4 to Dec. 10.
enced on Dec. 11. Phase1 $\&2^{*1}$ inspection to be commenced on
on Nov. 26 for spent fuel pool rack hangers, etc.
tructure (foundation bolts and sway brace) completed on Nov.
inspected from Dec. 8 to Dec. 12.
and low pressure turbine (A) casing opening and internal n Nov. 8 to Dec. 14.
om Dec. 3 to Dec. 10. Preparation work for transportation into
m Dec. 14 to Dec. 24.
n Dec. 11 to Dec. 13.
or start date of inspection.
late of inspection.
ov. 29 to Dec. 5.

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 November 25th, 2007 (Sun) to December 22nd, 2007 (Sat)

5	System/Equipment	Items		Nov. 25th (Sun) to Dec. 1st (Sat)	Dec. 2nd (Sun) to Dec. 8th (Sat)	Dec. 9th (Sun) to Dec. 15th (Sat)	Dec. 16th (Sun) to Dec. 22nd (Sat)	
	Relating to the Open Inspection of Reactors	In-core inspection	preparation					Phase3* ¹ Preparation for i Inspection commenced on
Unit No.5			inspection					Dec. 6. Phase3 ^{*1} inspecti
		Reactor pressure vessel inspection	preparation			1		Inspection of Nozzle parts
			inspection				· · · · · · · · · · · · · · · · · · ·	Support structure (foundation Inspection of Nozzle parts
	Relating to the Open Inspection of Turbines	Turbine internal inspections *2						High pressure turbine and inspection planned from C
	Restoration/Inspection of Equipments	Main transformers inspection (oil extrac inspection)	ction/internal preparation inspection					Preparation completed on planned from Nov. 30 to I Inspection planned from N
		House transformers inspection						5A, 5B Coordinating for
		Excitation transformers inspection						Coordinating for start date
		Main generator inspection				1		Inspection commenced or
	Relating to the Open Inspection of Reactors	In-core inspection						Inspection commenced on Withdrawal of two contro Control rod mechanism du
		Reactor pressure vessel inspection	preparation					Phase 1 & 2*1 inspection Nozzle parts etc. due to be
			inspection					Nozzle parts etc. due to be
	Relating to the Open Inspection of Turbines	Turbine internal inspections *2						High pressure turbine and Oct. 25.
	Equipments	Main transformers inspection						Transportation into the fac
		House transformers inspection						Transportation into the fac
		Reactor Internal Pump Input Transform	er preparation					Preparation for toransport
			transportation					Two units carried out to the factory on Dec. 3 (total of
		Discharge canal inspetion	preparation					Discharge canal inspection consideration. Preparation for maintenan

Status of Inspection/Restoration
or inspection planned from Dec. 3 to Dec. 11.
on Oct. 30. Phase 1 & 2^{*l} inspection planned from Nov. 22 to ection planned from Dec. 12 to Dec. 27.
arts etc. due to be commenced on Dec. 6.
adation bolts and sway brace) inspection completed on Nov. 2. arts etc. due to be commenced on Dec. 14.
and low pressure turbine (A) casing opening and internal n Oct. 24 to Dec. 14.
on Nov. 26. Preparation for transportation into the factory to Dec. 12. m Nov. 27 to Nov. 29.
for start date of inspection.
late of inspection.
on Nov. 3. Withdrawal of the rotor completed on Nov. 23.
on Nov. 13. trol rods that experienced separation completed on Nov. 27. n due to be disassembled and inspected from Dec. 1. on planned from Dec. 4 to Dec. 27.
b be prepared from Nov. 6 to Dec. 7.
be inspected from Nov. 7 to Dec. 12.
and low pressure turbine (A) internal inspection completed on
factory completed on Oct. 31.
factory completed on Oct. 25.
ortation into the factory to be planned from Nov. 1 to Dec. 2.
o the factory on Nov. 20. Two units due to be carried out to the l of 4 units).

tion completed on Sept. 29. Maintenance method under

nance due to be commenced on Dec.3.

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 November 25th, 2007 (Sun) to December 22nd, 2007 (Sat)

System/Equipment	Items	Nov. 25th (Sun) to Dec. 1st (Sat)	Dec. 2nd (Sun) to Dec. 8th (Sat)	Dec. 9th (Sun) to Dec. 15th (Sat)	Dec. 16th (Sun) to Dec. 22nd (Sat)	Status of Inspection/Restoration
Unit No.7 Relating to the Open Inspection of Reactors	In-core inspection preparation					Phase3* ¹ Preparation for inspection planned from Nov. 28 to Dec. 9. Disassembling and inspection of control rod mechanism mechanism completed on Nov
	inspection					19.Phase1*1 & Phase2*1 inspection planned from Nov. 20 to Nov. 30.Phase3*1 inspection planned from Dec. 10 to Dec 26.
	Fuel, control rod inspection					Control rod to be inspection planned 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					Nozzle parts etc. to be prepared from Nov. 8 to Dec. 5.
	inspection					Inspection of support structure (foundation bolts and sway brace) completed on Oct. 29 Nozzle parts etc. to be inspected from Nov. 15 to Dec. 14.
	Reactor-well inspection					Inspection and provisional restoration completed on Nov. 15. (Reactor well is currentl full.)
Relating to the Open						Restoration method under consideration.
Inspection of Turbines	Turbine internal inspections ^{*2}					High pressure turbine and low pressure turbine (A) casing opening and internal inspection planned from Oct. 8 to Nov. 30. High pressure turbine and low pressure turbine (A) (B) (C) detailed inspection to be commenced on Dec. 3.
Restoration/Inspection of	Main transformers inspection					Transportation into the factory completed on Oct. 25.
Equipments	House transformers inspection (oil extraction/internal inspection) preparation					7A, 7B Preparation for transportation to be commenced on Nov. 11. Transportation into the factory planned on Dec. 4.
	inspection					7A Inspection completed on Nov. 14. 7B Inspection completed on Nov. 10.
	Reactor Internal Pump Input Transformer preparation					Preparation for toransportation into the factory completed on Nov. 18.
	transportation					Two units carried out to the factory on Dec. 19. Two units due to be carried out to the factory on Nov. 23. (total of 4 units).
	Main generator inspection					Inspection commenced on Nov. 2. Withdrawal of the rotor completed on Nov. 20.
	Discharge canal inspetion preparation					Discharge canal inspection completed on Oct. 10. Maintenance method under consideration.
Common Activities for the Power						Preparation for maintenance due to be commenced on Dec.3.
Plant	Verification operation of stand-by equipments operation					Unit No. 1, 3 and 4 Stand-by Liquid Control System verification test run planned on Nov. 15, 16, 19, 20 and 21.
	Verification operation of feedwater pump and condensate pump					Unit No.7 Verification operation completed on Nov. 12.
Transformer (common) / Switch Yard	High-voltage start-up transformer #1inspection					Preparation work for carrying in to be commenced on Nov. 19. To be carried in on Dec. 5 and to be installed from Dec. 6.
	On-site check & inspection of the oil protection bank for the transformer					Provisional restoration completed on Sept. 20. Restoration method under consideration.
	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	On-site check & inspection of the incineration facility					For incinerators situated at Arahama side, inspection currently under way. Inspection to be completed on Nov. 30. To be re-fired on Dec. 4.
	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	Vaste Storage Facility Restoration work					Drum soundness verification work to be commenced on Oct. 9.
Others	Restoration work for administration building/ information building, etc.					Repair work of the second floor of the administrative building to be commenced on Oct. 17.
	Restoration work for the on-site/outside roads & slope,	e				Restoration of the slope completed on Oct. 22. Restoration work for roads inside and outside of the site currently in progress.

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 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.