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/Equipm	pment	Items	June 22nd (Sun) to June 28th (Sat) June 29th (Sun) to July 5th (Sat) July 6th (Sun) to July 12th (Sat)	July 13th (Sun) to July 19th (Sat	Status of Inspection / Restoration
nit No.1 Reactor fa	facilities I	Inspection of reactor recirculation piping applicable to the Fitness-for-Service rule			Inspection commenced on Jun. 16.
Turbine fa	facilities 7	Turbine inspection *2			Low-pressure turbine (B) internal inspection completed on Nov. 30.
Other facil	cilities S	Submerged equipment inspection on ground floor 5 of the reactor combination building			Restoration work commenced on Mar. 17.
	N	Main transformer inspection	▼		Preparation for on-site transportation to be conducted from May 12 to Jul. 8. On-site transportation to be conducted on Jul. 9.
	F	House transformer inspection	V		Preparation for on-site transportation commenced on Jun. 14. 1A Transportation into the factory to be conducted on Jul. 9. 1B Transportation into the factory to be conducted on Jul. 9.
	F	Excitation transformer inspection			Preparation for transportation completed on Jun 16. Transportation into the factory completed on Jun. 17.
	N	Main generator inspection			Inspection commenced on Feb. 7. Withdrawal of rotor completed on Mar. 5.
	5	500kV power cable inspection			Removal of cables to be conducted from Jul. 9 to mid-September.
	S	Stack inspection (Unit No. 1 / Unit No. 2)			Inspection for substructure of piles commenced on Apr. 4. Detailed inspection for top of stack commenced on Jun. 9.
	N	Main exhaust duct inspection / restoration			Visual inspection completed on Sep. 14. Survey completed on Jun. 6 prior to restoration work.
t No.2 Reactor fa	facilities (Core shroud inspection	V		Inspection commenced on Jun. 24.
	I	Inspection of new fuel storage warehouse and new fuels in the warehouse	V		Inspection of new fuel storage warehouse to be conducted on Jul. 1. New fuels to be inspected from Jul. 2 to Jul. 11.
Turbine fa	facilities 7	Turbine inspection *2			High-pressure turbine and low-pressure turbine (A) internal inspection completed on Dec. 21.
Other facil	cilities N	Main transformer inspection			On-site transportation completed on Jun. 3.
	F	House transformer inspection			Transportation into the factory is underway.
	I	Excitation transformer inspection			On-site transportation completed on May 16.
	N	Main generator inspection			Inspection commenced on Mar. 19. Withdrawal of rotor completed on Apr. 9.
	5	500kV power cable inspection		7	Removal of cables to be conducted from Jun. 2 to Jul. 12.
	N	Main exhaust duct inspection / restoration			Visual inspection completed on Oct. 5. Survey completed on Jun. 6 prior to restoration work.
t No.3 Reactor fa	facilities C	Core shroud inspection / preventive maintenance			Inspection commenced on May 19. Preventive maintenance commenced on June 11.
Turbine fa	facilities 7	Turbine inspection *²			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 blade commenced on Jun. 25. (Replacement of wear and contacted blade.)
Other facil	cilities N	Main transformer inspection			Transportation into the factory completed on Jun. 6.
	I	House transformer inspection			Transportation into the factory is underway.
	I	Excitation transformer inspection			Transportation into the factory is underway.
	N	Main generator inspection			Inspection commenced on Feb. 20. Transportation of rotor completed on May 15.
	5	500kV power cable inspection	V		Removal of cables to be conducted from Jun. 23 to Jul. 17.
	S	Stack inspection			Detailed inspection for top of stack commenced on Jun. 16.
	N	Main exhaust duct inspection / restoration			Visual inspection completed on Sep. 14. Survey completed on May 30 prior to restoration work.
	c	Circulating water pipe inspection			Foundation improvement, excavating work, and inspection of pipes commenced on Jun. 16.

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)

System/Equipment	Items	June 22nd (Sun) to June 28th (Sat) June 29th (Sun) to July 5th (Sat) July 6th (Sun) to July 12th (Sat)	July 13th (Sun) to July 19th (Sat) Status of Inspection / Restoration
t No.4 Reactor facilities	Fuel / control rod inspection *1	-	Visual inspection of fuels to be conducted from Mar. 21 to Mar. 27, and from Jun. 17 to Jul. 3. Visual inspection of channel boxes completed on Apr. 21. Visual inspection of control red completed on Apr. 21
	Inspection of new fuel storage warehouse and new fuels in the warehouse		Inspection of new fuel storage warehouse to be conducted on Jul. 14. New fuels to be inspected from Jul. 15 to late July.
Turbine facilities	Turbine inspection *2		High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on Jun. 19.
Other facilities	Main transformer inspection		Inspection completed on Dec. 13. Preparation for transportation into the factory conducted from Dec. 14 to Dec. 27 and from Jun. 2. Coordinating start date of transportation into the factory.
	House transformer inspection		4A, 4B Preparation for inspection commenced on Jun. 16. Coordinating for the start date of transportation into the factory.
	Excitation transformer inspection		Preparation for inspection commenced on Jun. 16. Coordinating for the start date of transportation into the factory.
	Main generator inspection		Inspection commenced on Jan. 15. Transportation of rotor into the factory completed on Jun. 11.
	Stack inspection	▼	Inspection for substructure of piles to be commenced on Jul. 1.
	Main exhaust duct inspection / restoration		Visual inspection completed on Oct. 5. Survey completed on Jun. 20 prior to restoration work. Preparation work for restoration commenced on J
nit 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 to be conducted on Jul. 7. Inspection of new fuels to be conducted from Jul. 8 to mid-July.
Turbine facilities	Turbine inspection *2		High-pressure turbine and low-pressure turbine (A) internal inspection completed on Dec. 14.
Other facilities	Main transformer inspection		Preparation for on-site transportation commenced on May 14.
	House transformer inspection		Transportation into the factory is underway.
	Excitation transformer inspection		Transportation into the factory is underway.
	Main generator inspection		Inspection commenced on Nov. 3. Rotor carrying in completed on Apr. 24.
	500kV power cable inspection	V	Removal of cables to be conducted from Jun. 30.
	Stack inspection	V	Inspection for substructure of piles to be commenced on Jun. 23. Internal inspection of stack to be conducted from Jun. 30 to Jul. 4.
	Main exhaust duct inspection / restoration		Visual inspection completed on Sep. 14. Survey completed on May 30 prior to restoration work. Preparation work for restoration commenced or
Init No.6 Turbine facilities	Turbine inspection *2*		-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.
	House transformer inspection		- 6A, 6B Installation work commenced on Apr. 14.
	Reactor internal pump input transformer inspection		Installation work commenced on Mar. 26.
	Main generator inspection		Inspection commenced on Mar. 10. Withdrawal of rotor completed on Apr. 3.
	500kV power cable inspection		Inspection commenced on Feb. 9. Energization for testing without load completed on Apr. 12.
	Discharge canal inspection / restoration		Discharge canal underwater inspection completed on Oct. 10. Internal inspection of discharge canal and maintenance work to be conducted from Feb. 26 to Jul. 19.
	Stack inspection		Detailed inspection for top of stack conducted from Mar. 19 to Mar. 28, and on Jun. 16. Internal inspection of stack completed on Apr. 7.
Seismic reinforce	ment Seismic reinforcement works such as pipe supports		Preparation works such as carrying in materials and installing scaffoldings carried out from Jun. 2. Seismic reinforcement works such as those for pipe supports to be conducted as preparation is complete.

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	June 22nd (Sun) to June 28th (Sat)	June 29th (Sun) to July 5th (Sat)	July 6th (Sun) to July 12th (Sat)	July 13th (Sun) to July 19th (Sat)	Status of Inspection / Restoration
Unit No.7 Reactor facilities	Reactor-well inspection					Inspection and provisional restoration completed on Nov. 15. (Vacuum work is still underway.) Repair of lining completed on Feb. 26. Repair of leakage confirmed on Mar. 14 and Mar. 15 when the reactor well was filled up with water.
Turbine facilities	Turbine inspection *2					High-pressure turbine and low-pressure turbine (A) (B) (C) detailed inspection commenced on Dec. 1. Low-pressure turbine (A) (B) restoration work of blade commenced on Apr. 14. (Replacement of wear and contacted blade.)
Other facilities	Main transformer inspection				1	Installation work commenced on Apr. 10.
	House transformer inspection					7B Installation work commenced on Mar. 24. 7A Installation work commenced on Apr. 11.
	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					Inspection commenced on Nov. 2. Restration work to be commenced on Jul. 3.
	500kV power cable inspection					Inspection commenced on Jan. 22. Energization for testing without load completed on Mar. 22.
	Discharge canal inspection / restoration					Internal inspection of discharge canal and restoration work completed on Jun. 7. Removal of bypass pipe commenced on Jun. 18.
S. i i. f						Preparation works such as carrying in materials and installing scaffoldings carried out from Jun. 2. Reinforcement works for pipe supports commenced on Jun. 16.
Seismic remiorcemen	t Seismic reinforcement works such as pipe supports					Reinforcement works for pipe supports commenced on Jun. 16. Reinforcement works for the roof truss of the reactor building to be commenced on mid-July.
Transformer (common) / Switch	High-voltage start-up transformer #3 inspection					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 commenced on Feb. 12. Unit No.3 Recovery of oil-contaminated soil to be conducted from May. 9 to Jun. Unit No.7 Rrestoration work commenced on Feb. 20.
				I	T.	Unit No.2 Preparation for restoration work commenced on May 20. 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 to be commenced on Jul. 1
Environmental Facilities	House boilers inspection 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.
						No.4 Restoration work completed on Jun. 2. No.3 Restoration work commenced on Jun. 2.
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Others	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.
	Inspection of spent fuel transportation cask					Inspection completed on Jun. 13.
	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 is underway.
	Construction of seismic-isolated essential buildings	$\overline{}$				Site preparation work commenced on Jun. 23.
	Outdoor fire protection system piping to be placed above ground, installation of fire protection tank, et					(Ohminato-side) Work on installing fire protection system piping above ground to be conducted from Mar. 21 to Jun. 27.
						(Arahama-side) Work on installing fire protection system piping above ground commenced on Apr. 28. Replacement work on the fire protection piping around the Arahama-side building from underground to above ground to be completed on Jun. 28.
	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. Reinforcement work commenced on May 16.
	Restoration work for port facility					Restoration work on the wharf commenced on Mar. 17. 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.

*1 Fuels and control rods were inspected visually by either underwater cameras or fiberscopes.

"Fuel visual inspection" Representative fuels that had been withdrawn will be inspected. The number of fuel bundles and fuel rods to be inspected differ among units based on the type of fuels and the size of the reactor core of each unit.

"Channel box sixual inspection". Channel box sadjacent to those control rods subject to inspected.

For unit 1, since all fuels and channel boxes were placed in the spent fuel pool at the time of the earthquake, channel boxes that housed fuels that were subject to inspection will be inspected. "Control rod visual inspection": Representative control rods that had been withdrawn will be inspected. The number of control rods to be inspected differ among units based on the type of fuels and the size of the reactor core of each unit.

- *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 turbine) 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.