

[Summary] Current Status of Shika Nuclear Power Station after the 2024 Noto Peninsula Earthquake (as of December 10)

- Three of the five off-site power supply transmission lines can currently receive power (required on-site power can be supplied by one off-site power supply line). Cooling of the spent fuel pool is also being sustained, and no safety related issues have occurred. Also, emergency diesel generators for use when off-site power becomes unavailable and multiple backup units consisting of high capacity power supply cars and high voltage power supply cars have been secured.
- The restoration of the Unit 2 main transformer requires a complete replacement, which is expected to take a certain amount of time. Therefore, we will also carry out equipment countermeasure construction to enable receiving power from Shika Naka Noto lines.
- Damaged facilities affected by this incident in Shika Nuclear Power Station have generally been restored or have had temporary measures implemented. We are currently proceeding with restoration of some equipment requires to take a certain amount of time in a planned manner.

Response status for regarding power supply facilities

Category	No.	Title	Status of response after the previous notification (on November 5).	Plan for future action	Expected date of completion
Transformer/off-site power supply	1-①	Oil leak from Unit 1 startup transformer and actuation of pressure relief device, activation of sprinkler firefighting system	—	—	Completed
	2-①	Oil leak from Unit 2 main transformer and activation of sprinkler firefighting system, actuation of pressure relief device	—	<ul style="list-style-type: none"> • Until the main transformer is restored, the Transmission voltage from Naka Noto Sub-station will be changed from 500kV to 66kV so that power can be received from Shika Naka Noto lines as well. Also, at Shika Nuclear Power Station, we plan to carry out equipment countermeasure construction to enable us to receive power at 66kV. (scheduled for the first half of FY2025) • The main transformer shall be replaced completely. 	First half of FY2025 <small>※we will carry out equipment countermeasure construction to enable to receiving power on 5 lines.</small>
	Common-③	Confirmed oil slick on the sea surface in front of the power station	—	• We will carry out asphalt repairs and other maintenance around the oil separator.	Completed
	Common-④	Status of off-site power supply (transmission line, substation facilities)	—	—	Completed
Emergency power supply	1-⑨	Automatic shutdown during trial run of Unit 1 high pressure core spray diesel generator	—	—	Completed
Other transformer <small>No impact on nuclear safety as subject transformers are not used during shutdown.</small>	1-⑥	Actuation of pressure relief devices of Unit 1 house transformer and main transformer	—	—	Completed
	2-⑤	Actuation of pressure relief valve of Unit 2 excitor transformer	—	—	Completed

Response status for other facilities (excluding response completed before November 5)

Category	No.	Title	Status of response after the previous notification (on November 5).	Plan for future action	Expected date of completion
Cooling water/make up water related <small>Pipes with leaks were used to transfer cooling water for air conditioning and water to clean analysis equipment; therefore, does not impact nuclear safety.</small>	1-③	Reduction of Unit 1 turbine component cooling water system surge tank level	—	—	Completed
	1-⑤	Reduction of Unit 1 pure water tank level	—	—	Completed
Low pressure turbine related <small>Occurring while turbine was shutdown, and does not impact nuclear safety.</small>	2-③	“Expansion difference large” annunciator setoff at Unit 2 low pressure turbine	—	• We will carry out the necessary repairs on the damaged components.	Inspection completed. (Restoration period undetermined)
Spent fuel storage pool related <small>Falling article was lightweight, and fell at a location remote from fuel, and therefore does not impact spent fuel.</small>	2-④	Articles falling into Unit 2 spent fuel storage pool	—	—	Completed
Building/on-site road related <small>Facilities continue to satisfy required functions, and damages are minor, and safety and performance are not affected.</small>	1-④	Inclination of Unit 1 discharge tank sea wall	—	—	Completed
	1-⑦	Foundation of Unit 1 discharge tank and Unit 1 component cooling discharge connection tank sea wall subjected to subsidence	—	—	Completed
	1-⑧	Ground becoming uneven at location where Unit 1 high voltage power car is used	—	—	Completed
	Common-①	Units 1, 2 waste treatment building expansion joint seal cover becoming detached	—	—	Completed
	Common-②	Subsidence of paved concrete at the reclaimed loading area	—	—	Completed
Control rod drive mechanism related	1-⑩	Falling of parts which support the Unit 1 control rod drive mechanism housing in the event of its collapse	—	—	Completed
Blowout panel related	2-⑦	Unit 2 temporary opening and closing of the blowout panel	<ul style="list-style-type: none"> • Confirmed that there was an opening (up to approximately 5 cm) near the upper part of the blowout panel on the east side of the north wall of the reactor building's 5th floor. • By November 20th, repairs were completed on all clips where deformation or other issues were identified. 	—	Completed

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

***Blue text indicates areas updated after disclosure on November 5**

***Response has been completed for yellow hatched areas (all temporary measures have been completed)**

Shika Nuclear Power Station Unit 1

No.	Date disclosed	Title	Event overview	Response status
1-①	2024/1/2	Unit 1 Oil leak from startup transformer and actuation of pressure relief device, activation of spray firefighting system	<ul style="list-style-type: none"> • Confirmed that approx. 3,600 liters (estimate) of insulating oil* from the transformer had leaked into the weir. *Amount held: 52,200 liters (in the main unit of transformer: 42,000 liters) • Confirmed that pressure relief device had actuated when the earthquake occurred. • Manually activated spray firefighting system • Switched to standby transformer, and currently receiving power from the Akasumi line (66kV). Can also receive power from the Shika nuclear power line (275kV) via the Unit 2 electrical power distribution system. Also, emergency diesel generators, high capacity power cars and high voltage power cars have been secured as emergency power sources. ⇒Necessary off-site power and emergency power sources have been secured, and there is no impact on nuclear safety, such as capabilities to cool spent fuel, etc. 	<ul style="list-style-type: none"> • On January 2, approx. 4,200 liters have been collected when including rain water. • Closed the gate valve of the radiator leaking insulating oil, and conducted covering to prevent intrusion of rainwater. Also, gate valves for other radiators were closed to prevent leak of insulating oil caused by damage from after quakes. • Removed No.4 radiator and replaced conservator rubber bag. • Confirmed that there were no anomalies in the low voltage electric test. • Installed anti-vibration fittings on top of all radiators except for the No.4 radiator, as temporary measure to improve seismic resistance. • Conducted confirmation tests, and restored to condition where power can be received. • On March 14, power received by Shika Unit 1 via the Shika nuclear power line (275kV) was switched from Unit 2 house power supply interchange to the Unit 1 startup transformer. • Fracture surface observation and structural analysis were conducted, and ductile fracture due to resonance was assumed to be the cause. • On August 7, we conducted the replacement of all six radiators, which had undergone earthquake countermeasures (structural improvements to prevent stress concentration on reinforcement plates), and started receiving power from the Shika nuclear power line.
1-②	2024/1/2	Unit 1 Scattering of spent fuel storage pool	<ul style="list-style-type: none"> • Confirmed sloshing in spent fuel storage pool. • Amount scattered is approx. 95 liters (approx. 0.8mm decrease in pool inventory), amount of radiation is approx. 17,100Bq, no impact of radiation outside. ⇒Almost no changes to pool level, and there is no impact on nuclear safety, such as capabilities to cool spent fuel, etc. 	<ul style="list-style-type: none"> • On January 4, wiped scattered water. • Spent fuel currently being cooled in stable condition.

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

No.	Date disclosed	Title	Event overview	Response status
1-③	2024/1/2	Unit 1 Reduction of turbine component cooling water system surge tank inventory	<ul style="list-style-type: none"> Cooling water leaked from the cooling coil of the heating, ventilation and air conditioning system (hereinafter “HVAC”) of the Reactor Building and Turbine Building. ⇒Cooling water is for air conditioning, and there is no impact on nuclear safety.	<ul style="list-style-type: none"> Valves were closed and decrease in levels were confirmed to have stopped. On February 29, performed repairs on the damaged cooling coil.
1-④	2024/1/2	Unit 1 Inclination of discharge tank sea wall	<ul style="list-style-type: none"> The steel sea wall (height 4m) autonomously installed as tsunami measures around the Unit 1 discharge tank (perimeter approx. 108m), was confirmed to have inclined by approx. several cm due to impact of the earthquake. ⇒The deformation is minor and has no impact on performance. No other inclination was identified.	<ul style="list-style-type: none"> On October 21, the repair of the gap in the foundation caused by the tilting of the No. 1 discharge tank's seawall was completed.
1-⑤	2024/1/2	Unit 1 Reduction of pure water tank inventory	<ul style="list-style-type: none"> Confirmed the inventory of pure water tank to be decreasing by approx. 7.3 liters (438 liters/hour) every minute. Amount leaked was tiny compared to production capability for pure water (20,000 liters/hour) ⇒Water in the pure water tank are to be used to clean analysis equipment, and there is no impact on nuclear safety.	<ul style="list-style-type: none"> Identified leaking pipe which was buried outdoors. Valve was closed, and confirmed that reduction of inventory levels had stopped. Pure water was supplied to the destination of pipe subject to leak using different means. On August 21, the repair of the leakage point has been completed.
1-⑥	2024/1/5	Unit 1 Actuation of pressure relief devices of house transformer and main transformer	<ul style="list-style-type: none"> Confirmed actuation of pressure relief devices of Unit 1 house transformer and Unit 1 main transformer during earthquake. (Oil enclosed in the transformer sloshed around during an earthquake, causing the internal pressure to rise temporarily, causing the pressure relief device to actuate correctly. Confirmed that there are no oil leaks from the event.) ⇒Actuation of pressure relief devices of the house transformer and main transfer were confirmed, but this is normal and without issue.	<ul style="list-style-type: none"> Visual inspection was conducted for the main transformer, and no anomalies were confirmed. Visual inspection was conducted for house transformer. Although cracks were confirmed in the reinforcing plate and fin welds of all radiators, confirmed that there were no abnormal performance of function. On April 19, replaced the pressure relief device of Unit 1 house transformer and main transformer.
1-⑦	2024/1/5	Unit 1 Foundation of discharge tank and Unit 1 component cooling discharge connection tank sea wall subjected to subsidence	<ul style="list-style-type: none"> The foundation of the steel sea wall (height 4m) autonomously installed as tsunami measures around the Unit 1 discharge tank and Unit 1 component cooling discharge connecting tank, was confirmed to have subsided by approx. several cm due to impact of the earthquake. ⇒There are no abnormalities with the exception of the partial incline of the sea wall (1-④), and sandbags were installed in gaps of few cm confirmed at the subsided area; therefore, there is currently no impact on function.	<ul style="list-style-type: none"> On October 21, the repair of the gaps in the foundation caused by the subsidence of the foundation of the Unit 1 discharge tank and the Unit 1 auxiliary cooling drainage connection tank seawall was completed.

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

No.	Date disclosed	Title	Event overview	Response status
1-⑧	2024/1/5	Unit 1 Ground becoming uneven at location where Unit 1 high voltage power car is used	<ul style="list-style-type: none"> Confirmed that unevenness of several cm had appeared on the road near the site where Unit 1 high voltage power car is used. <p>⇒The high voltage car can be used without issue of deployed in a different area nearby; therefore, there is no impact.</p>	<ul style="list-style-type: none"> Access restriction indication posted for subject area. On August 2, the repairing of uneven asphalt was completed.
1-⑨	2024/1/17	Unit 1 Automatic shutdown during trial run of high pressure core spray diesel generator	<ul style="list-style-type: none"> After Shika Town experienced an earthquake of intensity five lower on January 16, trial run of Unit 1 high pressure core spray diesel generator was conducted as safeguard measures, but subject generator shutdown automatically. No abnormality was observed in the trial run (conducted January 4) conducted following the Shika Town earthquake of intensity seven on January 1. <p>⇒No impact on power supply as three off-site power lines (Akasumi line (66kV one line) and Shika nuclear power line (275kV two lines) are secured, and two out of three Unit 1 emergency diesel generators are sound.</p>	<ul style="list-style-type: none"> Regarding this event, causal survey did not identify abnormality in equipment. Also, no abnormality was identified in the load test carried out afterwards. Applied changes to procedures regarding measures to be taken against estimated cause, and high pressure core spray diesel generator was put on standby.
1-⑩	2024/4/10	Unit 1 Falling of parts which support the control rod drive mechanism in the event of its collapse	<ul style="list-style-type: none"> During inspection to check integrity of seismic resistance of power station facilities after the 2024 Noto Peninsula Earthquake (conducted from March 1-27), confirmed falling of parts which support the Unit 1 control rod drive mechanism housing in the event of its collapse. <p>⇒Subject part does not directly support the control rod drive mechanism, and is installed to support the control rod drive mechanism housing in the event of its collapse; therefore, there is no adverse impact on the function of control rod drive mechanism. Even if falling of subject parts occurs during operation, the control rod drive mechanism will function normally.</p> <p>During subject inspection to check integrity of seismic resistance of power station facilities after the 2024 Noto Peninsula Earthquake, no deficiencies which impacted nuclear safety, including subject case of falling parts, were confirmed.</p>	<ul style="list-style-type: none"> On April 2, fallen parts were collected. On April 15, collected parts were installed. On May 31, confirmed and corrected misalignment of general parts which support the control rod drive mechanism housing in the event of its collapse.

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

Shika Nuclear Power Station Unit 2

No.	Date disclosed	Title	Event overview	Response status
2-①	2024/1/2	Unit 2 Oil leak from main transformer and actuation of pressure relief device, activation of spray firefighting system	<ul style="list-style-type: none"> • Confirmed that approx. 3,500 liters (estimate) of insulating oil* from the transformer had leaked into the weir. *Amount held: 122,500 liters (in the main unit of transformer: 122,500 liters) • Confirmed actuation of pressure relief device and spray firefighting system. (also confirmed that there was no actual fire) • Switched to standby transformer, and currently receiving power from the Shika nuclear power line (275kV). Can also receive power from the Akasumi line (66kV). Also, emergency diesel generators, high capacity power cars and high voltage power cars have been secured as emergency power sources. <p>⇒Necessary off-site power and emergency power sources have been secured, and there is no impact on nuclear safety, such as capabilities to cool spent fuel, etc.</p>	<ul style="list-style-type: none"> • On January 5, approx. 19,800 liters of oil have been collected (estimated). (When including rain water, approx. 24,600 liters. Amount collected corrected (January 5)) • Closed the gate valve of the radiator leaking insulating oil, and conducted covering to prevent intrusion of rainwater. Also, gate valves for other radiators were closed to prevent leak of insulating oil caused by damage from after quakes. • Removed No.11 cooling unit. • Confirmed discharge crater and damage on the T phase bushing. Also confirmed discharge crater on the bushing case. • Although traces of carbon were found on the wall of the transformer unit, no anomalies were confirmed on the coil and iron core. No anomalies were confirmed on the R and S phase bushings and its bushing cases. • Cracks in the coating of No.1-10 cooling unit upper pipe joint were peeled and inspected visually; and damage was confirmed. • Fracture surface observation and structural analysis were conducted, and ductile fracture due to resonance was assumed to be the cause. • Until the main transformer is restored, the transmission voltage from Naka Noto Sub-station will be changed from 500kV to 66kV so that power can be received from Shika Naka Noto lines as well. Also, at Shika Nuclear Power Station, we plan to carry out equipment countermeasure construction to enable us to receive power at 66kV. (scheduled for the first half of FY2025.) • The main transformer shall be replaced completely.
2-②	2024/1/2	Unit 2 Scattering of spent fuel storage pool	<ul style="list-style-type: none"> • Confirmed sloshing in spent fuel storage pool. • Amount scattered is approx. 326 liters (approx. 1.3mm decrease in pool inventory), amount of radiation is approx. 4,600Bq, no impact of radiation outside. <p>⇒Almost no changes to pool level, and there is no impact on nuclear safety, such as capabilities to cool spent fuel, etc.</p>	<ul style="list-style-type: none"> • On January 3, wiped scattered water. • Spent fuel currently being cooled in stable condition.

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

No.	Date disclosed	Title	Event overview	Response status
2-③	2024/1/2	Unit 2 “Expansion difference large” annunciator setoff for low pressure turbine	<ul style="list-style-type: none"> • Annunciator “expansion difference large” was setoff due to swaying from earthquake. <p>⇒Occurred when turbine was shutdown, and does not impact securing of nuclear safety.</p>	<ul style="list-style-type: none"> • From March 8, started inspection of turbine. • When the turbine lubricating oil system was started up to separate turbine and generator shaft joint, there was dripping of oil from the bottom of the generator shaft bearing (1 drop/min.), and cracks were confirmed on some welded areas. Repairs to be performed in the future. • Confirmed floating of thrust bearing housing* and loose bolts, etc. Detailed inspection and repairs to be performed in the future. <p>*Housing containing thrust bearing which receives force applied to the axial direction</p> <ul style="list-style-type: none"> • Confirmed contact mark between moving and stationary blades of low pressure turbine (A) , (B) , (C). • Confirmed contact mark between moving and stationary blades of high pressure turbine. • Confirmed deformation of thrust bearing seal ring and dents in the metal parts. • Confirmed damage to the connector pipe protrusion located around the thrust bearing. • Confirmed deformation of turbine/generator coupling oil deflector at the shaft connection • Confirmed damage to turbine expansion differential meter at the shaft connection. • Confirmed damage to the generator rotation detector and rotation detection gear. • Confirmed broken generator thrust key fixation bolt. • Confirmed damage, etc. around the generator shaft bearing alignment key. • On September 26, the detailed inspection of the turbine and generator has been completed. No significant damage was found on major components such as the moving blades and stationary blades. • We will carry out the necessary repairs on the damaged components.
2-④	2024/1/2	Unit 2 Articles falling into spent fuel storage pool	<ul style="list-style-type: none"> • Confirmed that one of the parts used for reactor coolant recirculation pump inspection, stored in the Unit 2 spent fuel storage pool had fallen to the bottom of the pool. <p>⇒The subject article is light (polyester material), and fell at a location remote from fuel (approx. 4m); therefore, there is no impact to spent fuel.</p>	<ul style="list-style-type: none"> • On March 29, fallen articles were collected.

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

No.	Date disclosed	Title	Event overview	Response status
2-⑤	2024/1/3	Unit 2 Actuation of pressure relief valve of exciter transformer	<ul style="list-style-type: none"> Confirmed that actuation of pressure relief valve at the top of transformer caused approx. 100 liters (estimated) of insulation oil of transformer to be discharged to the weir via feed tube. (Earthquake causing the oil in transformer to slosh resulted in temporary increase of internal pressure which led to the normal actuation of the pressure relief valve.) <p>⇒The exciter transformer is used during plant operation; therefore, there is no impact on nuclear safety.</p>	<ul style="list-style-type: none"> On January 5, approx. 100 liters of oil collected. On February 26, replaced pressure relief valve, and conducted low voltage electric test.
2-⑥	2024/1/3 2024/3/25 (Added)	Unit 2 Increase of seawater level inside intake tank	<ul style="list-style-type: none"> Reconfirming power station data from January 1 confirmed that Unit 2 intake tank seawater level had increased by approx. 3m compared to normal levels. <p>⇒Sea embankment and sea wall 4m high are installed at EL11m on site premises; therefore, an increase of approx. 3m will not have an impact on power station facilities.</p>	<ul style="list-style-type: none"> Confirmed an increase of approx. 3m in the Unit 2 intake tank using a level gauge, and fluctuations in sea levels was analyzed. Also, the data for intake tank levels was used to perform analysis, and evaluation concluded that there was an increase of approx. 3m in levels near the intake port. Furthermore, collection, analysis and evaluation of data from the wave meter confirmed that there approx. 3m of sea level increase near the unloading dock. Analysis and survey of traces were conducted regarding the tsunami run-up height in front of the site, and results confirmed subject height to be approx. 4m.
2-⑦	2024/11/8	Unit 2 Temporary opening and closing of the blowout panel	<ul style="list-style-type: none"> On November 7, when we stopped the reactor building and turbine building ventilation fans, we confirmed that there was an opening (up to approximately 5 cm) near the upper part of the blowout panel on the east side of the north wall of the reactor building's 5th floor. <p>⇒Confirmed that there were no abnormalities in the status of the reactor building and turbine building ventilation fans, as well as in the data on the concentration of airborne radioactive materials and surface contamination density inside the reactor building, following the Noto Peninsula earthquake. There has been no release of radioactive materials to the outside.</p>	<ul style="list-style-type: none"> By November 20th, repairs were completed on all clips where deformation or other issues were identified.

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

Common for Shika Nuclear Power Station Units 1 and 2

No.	Date disclosed	Title	Event overview	Response status
Common- ①	2024/1/2	Units 1, 2 Waste treatment building expansion joint seal cover becoming detached	<ul style="list-style-type: none"> • Confirmed that metallic cover, which protects the rubber sealing material (expansion) connecting Units 1 and 2 waste treatment buildings, had become detached. Also, subject seal cover functions as a degradation prevention part for sealing material. ⇒Confirmed that there was no damage to sealing material. Also, there was no radiological impact outside. 	<ul style="list-style-type: none"> • On March 19, replaced seal cover.
Common- ②	2024/1/5	Subsidence of paved concrete at the reclaimed loading area	<ul style="list-style-type: none"> • At the reclaimed part of the loading area, paved concrete had subsided as a result of the earthquake, causing uneven ground. ⇒No structural issue regarding the loading area. 	<ul style="list-style-type: none"> • Conducted detailed survey to confirm scope of subsidence and volume subsided. • Measures taken for temporary restoration to eliminate uneven ground using sandbags. Repairs using concrete is in progress. • On September 26, the concrete repair of the subsided area has been completed.
Common- ③	2024/1/7	Oil film being confirmed on the sea in front of the power station	<ul style="list-style-type: none"> • Confirmed oil film (approx. 5m by 10m) floating on the sea surface in front of the Shika Nuclear Power Station • Actuation of spray fire fighting system in the event of the January 1 earthquake caused leaked insulation oil of the transformer to scatter, and it is assumed that subject oil flowed out into the sea via drain after rainfall. ⇒Leaked oil was neutralized and collected, and there is no impact on the environment. 	<ul style="list-style-type: none"> • On January 7, oil film was treated using neutralizers. • Confirmed that the station in general was not subjected to other oil leaks. • Install oil fence, and continued focused monitored to check for residual oil in drains.
	2024/1/10	Oil film being confirmed on the sea in front of the power station	<ul style="list-style-type: none"> • Oil film was confirmed in the drain around the Unit 2 main transformer, and confirmation of the downstream side confirmed oil film floating on the ocean in front of the power station (approx. 100m by 30m, approx. 6 liters) ⇒There is no environmental impact of installing oil fence on the coast. 	<ul style="list-style-type: none"> • Installation of oil absorbing mats in the drain was improved and monitored. • Removed gravel from the oil retainer holding leaked oil and confirmed that oil retainer and underground tank were not damaged. • Crushed stone outside the oil retainer, gutter and road (pavement) where oil had scattered, were designated as the source of oil leak, and crushed stones were removed and the subject area cleaned. • Established and implemented response procedure to be used (such as operation of discharge gate, etc.) when discovering oil leak on station premises. • On October 29, the installation of the oil separator in the side ditch was completed.

Occurring Event and Status of Response Up to the Present

[as of December 10, 2024]

No.	Date disclosed	Title	Event overview	Response status
Common- ④	2024/1/9	Status of offsite power supply (transmission line, sub-station facilities)	<ul style="list-style-type: none"> • Conducted inspection of transmission line connected to Shika Nuclear Power Station, and confirmed the following: (Shika nuclear power line 275kV two lines) <ul style="list-style-type: none"> • No abnormality (Akasumi line 66kV one line) <ul style="list-style-type: none"> • An insulator for the transmission line (one piece) and disconnected wire (one area) on the jumper line (cable connecting insulation device before and behind steel towers were confirmed, but there currently are no issues regarding performance of transmission lines. [No. 5 steel tower: one out of six damaged] [No. 3 steel tower: five out of 30 wires disconnected] • Confirmed deformation (one location) of jumper connecting terminal on the Akasumi line No.10 steel tower (notified February 9). (Shika Naka Noto line 500kV two lines) <ul style="list-style-type: none"> • Confirmed damaged the GIS (Gas Insulated Switchgear) bushing (insulating tube) in Naka Noto Sub-station, damaged isolation on transmission line (two locations). [Line 2 switchyard anchor structure: 4 out of 53 damaged] [Line 1 No. 2 steel tower: 1 out of 36 damaged] • One out of two lines of the Shika Naka Noto line is online, and the Unit 2 main transformer is also out of service and cannot receive power. • Three lines (Shika nuclear power line No. 1 line, Shika nuclear power line No.2 line, Akasumi line) are connected to Shika Nuclear Power Station as off-site power, and power can be supplied to both Units 1 and 2. Also, emergency diesel generators, high capacity power cars and high voltage power cars have been secured as emergency power sources. <p>⇒Necessary off-site power and emergency power sources have been secured, and there is no impact on nuclear safety, such as capabilities to cool spent fuel, etc.</p>	<p>(Akasumi line 66kV)</p> <ul style="list-style-type: none"> • On January 13, replaced damaged insulation (one piece) and disconnected jumper line (one area). • On February 10, replaced jumper connecting terminal and jumper line (one area). <p>(Shika Naka Noto line 500kV)</p> <ul style="list-style-type: none"> • On January 31, replaced two transmission line insulators. • On June 14, replaced the GIS (Gas Insulated Switchgear) bushing (insulating tube) in Naka Noto Sub-station.