

Summary of nonconformities concerning water treatment facility (as of August 16)

No	Date	Category	Title	Description
1	2011/6/10	Cesium adsorption Instruments	Leakage from connection parts of pipes, etc.	Confirmed water blur around piping connection parts during water flow test. Implemented coating.
2	2011/6/12	Cesium adsorption Instruments	Stop of water flow of H2 skid	Failed to raise flow rate during water flow test due to H2 skid. Restructured the system and restored the flow rate.
3	2011/6/16	Cesium adsorption Instruments	Water blur in the pump in H1skid	Confirmed water blur in the pump of H1 skid during test run. Switched to another pump.
4	2011/6/16 2011/6/18	Cesium adsorption Instruments	Breakage of rupture disks	June 16, wrong operation of valves caused closing operation and damage of rupture disks. Water leaked and water treatment stopped automatically. Exchanged rupture disks. June 18, confirmed rupture disks were damaged and water leaked during the shutdown of water treatment. Switch to closing operation of main valves of rupture disks
5	2011/6/17	Decontamination instruments	Logic malfunction of water treatment instrument shutdown	Continuous operation of decontamination instruments were carried out and water treatment stopped automatically as its logic is that water treatment stops during the stop of decontamination instruments Changed the logic in order to avoid the water treatment from stopping due to the continuous operation.
6	2011/6/18	Cesium adsorption Instruments	Increase of surface radiation dose of cesium adsorption towers	The surface radiation dose of oil and technetium removal (SMZ) skid increased Water treatment stopped manually. This was due to the influence of absorbing cesium and we replaced SMZ vessels of zeolite with ones of silica sand
7	2011/6/21	Decontamination instruments	Shutdown of filtered water supply pumps for chemical liquid injection instruments	Filtered water supply pumps stopped due to overload and chemical injection instruments stopped automatically. Water treatment stopped manually. Adjusted flow rate adjustment valves of filtered water supply pumps
8	2011/6/22	Cesium adsorption Instruments	Increase of radiation dose around the outlet of cesium adsorption Instruments	The radiation dose around the outlet showed tendency to rise. One of the valves was mistakenly opened and a part of the radiation was emitted to the next procedure. Restored the valves.
9	2011/6/25	Other	Malfunction of water level gauge indication of oil separator treatment water tank	Tank water level decrease alarming was caused (one of the 2 systems). Water treatment stopped automatically. No water level decrease or leakage was confirmed and therefore we judged malfunction of water level gauge. Operated with another system water level gauge.
10	2011/6/27	RO instruments	Slipping off of the connection part of hoses for RO treatment water transfer	Joint parts of the hoses slipped off. Assumed that strong pressure was instantaneously given during the operation of valves. After that more deliberate valve operation is carried out.
11	2011/6/29	RO instruments	Blur and pinholes around the outlet of flange of pumps for RO treatment water transfer	Found water blur and small pinholes. Stopped transferring and exchanged hoses.
12	2011/6/29	RO instruments	Leakage from the drainage of temporary storage tanks of RO condensation water	Water leaked due to the mouth of the tank drainage with no cap. Installed fixing caps.

Summary of nonconformities concerning water treatment facility (as of August 16)

No	Date	Category	Title	Description
13	2011/6/29	Other	Leakage from manholes of decontamination instrument treatment water tanks	As flow rate decrease tendency of decontamination instruments was confirmed, we opened the manhole of tanks and water leakage was confirmed after checking the situation at the time of startup. Water treatment stopped manually. The manhole was restored.
14	2011/6/29	RO instruments	Blur from the flange of connection parts of temporary storage tanks of RO condensation water	Confirmed some blur. Implemented water stop treatment.
15	2011/6/29	Decontamination instruments	Defects concerning automatic startup of transfer pumps of wasted liquid receiving tanks	As we did not change the mode to "Automatic" after implementing control program improvement work of decontamination instruments, decontamination instruments did not start up automatically and overflow of receiving tanks was caused. Water treatment stopped automatically. After coordinating the startup conditions, we restarted them.
16	2011/6/29	Decontamination instruments	Decrease of flow rate from wasted liquid treatment water tanks for decontamination instrument water treatment tanks	Confirmed the decrease of flow rate tendency of decontamination instruments. Took countermeasures such as blow operation on July 15 but no improvement was confirmed. On August 4 we installed bypass lines in the pipe that contain attachments inside and the situation improved.
17	2011/6/30	Decontamination instruments	Mis-setting of water level of wasted fluid treatment water tanks	Water treatment stopped automatically because we did not set back the tank level to the normal value in the startup and an alarm for water level decreasing was sounded. Set back the tank level to the normal value and restarted it.
18	2011/7/7	RO instruments	Breakdown of pumps of pulling out for SPT (B)	Pumps broke down. Switched to backup pumps.
19	2011/7/10 2011/7/12 2011/7/13	Decontamination instruments	Damage of connection parts of chemical liquid injection line and leakage of the liquid	On July 10: Confirmed leakage by surveillance camera. As pipe connection parts were damaged, we replace them with new parts made of strong iron. On July 12: Confirmed leakage again. Water treatment stopped manually. Replaced with ones made of stainless more resistant to corrosion. On July 13: Similar parts were damaged. Water treatment manually stopped. Replaced with ones that are stronger and more resistant to corrosion.
20	2011/7/21	RO instruments	Malfunction of water level gauge of SPT(B) tank due to planned blackout related work	As SPT(B) tank water level gauge was unpowered due to the planned blackout, water treatment shutdown signal was transmitted. In the planned blackout on July 23, we prevented the water treatment stop signal from occurring.
21	2011/7/21	Decontamination instruments	Breakdown of stirring machines	Water treatment instrument did not start due to the breakdown of the stirring machines of decontamination instruments. Switched to reserved ones.
22	2011/7/24	RO instruments	False installation of water level gauges in the water tank for backwashing of sand filtration instruments	Water level of filtration tanks for backwashing decreased and backwashing pressure decrease alarming was caused. RO instruments automatically stopped. Found the water level gauge was located below the original position and therefore relocated it to the original position.

Summary of nonconformities concerning water treatment facility (as of August 16)

No	Date	Category	Title	Description
23	2011/7/24	Cesium adsorption Instruments	Automatic shutdown of pumps in the H4 skid	Pump of H4 skid stopped. Started a reserve one and continued to operate.
24	2011/7/25 2011/7/29	Cesium adsorption Instruments	Automatic shutdown of pumps in the H3 skid	On July 25, the pump of H3 skid stopped. Restarted and continued to operate it. On July 29, the pump of H3 skid stopped. A reserved one did not start up, either. (secured the flow rate with the upper pump)
25	2011/8/4 2011/8/7	Decontamination instruments	Automatic shutdown of pumps of chemical liquid injection instruments and failure of automatic startup of spare instruments	On August 4, pumps stopped and reserve pumps failed to start up. Water treatment stopped automatically. Restarted the pumps after confirming the soundness of them, On August 7, pumps stopped and reserve pumps failed to start up. Water treatment stopped automatically. Because the motor turned out to be overloaded, we adjusted the pumps performance and restarted them.
26	2011/8/4	Cesium adsorption Instruments	Leakage from washing water hose flange of used cesium adsorption towers	Washing water leaked into the on-site bunker building when storing the used adsorption tower. Relocated hoses to high temperature incinerator building.
27	2011/8/5	Other	An alarm concerning procedure errors was sounded (this sounds when the conditions for operations are not satisfied, etc.)	Water treatment stopped automatically due to an alarm sounding. Reset all and restarted it after confirming no extraordinary parameters.
28	2011/8/7	Cesium adsorption Instruments	Automatic shutdown of pumps in the SMZ skid	The 3rd system line pumps for SMZ stopped. Since in the 3rd system line 2 other pumps for H vessels were also broken, the flow rate decreased.
29	2011/8/8	Other	Breakdown of water treatment instruments and water level gauging function SPT(B) due to thunderbolt	SPT(B) tank's water level decrease alarming happened. Water treatment stopped automatically. Reset all and confirmed no extraordinary events concerning the SPT(B) tank water level and judged error alarming caused by thunderbolt
30	2011/8/11	Other	Indication error of the decontamination instrument water treatment tanks	Water level gauge (supersonic type) in one of the two systems downscaled. Water treatment instrument stopped automatically. No extraordinary events such as leakage etc., were confirmed and restarted it with another water level gauge (bub type).
31	2011/8/12	Other	An alarm concerning procedure errors was sounded (this sounds when the conditions for operations are not satisfied, etc.)	Water treatment stopped automatically due to the sounding of the alarm. Confirmed no extraordinary parameters and restarted it.
32	2011/8/13	Evaporative concentration apparatus	Connection part of chemical injection lines fell off and some leakage of chemical liquid was caused	Hoses slipped off and chemicals leaked. Tightened the connection parts of hoses and installed fasteners.