

Outline of technical specification non-conformances judged to be “monitoring required” as a result of FY 2012 3rd quarter safety inspection and safety investigation (Kashiwazaki-Kariwa Nuclear Power Station)

1. Accidental disposal of samples of low-level radioactive waste (concentrated waste liquid) at Unit 5

Outline

On October 24, 2012, at the hot lab* sample storage room located in the controlled area of Unit 6, a cooperative company worker in charge of sample analysis found that 2 liters (2 bottles of 1L sample) of radioactive waste liquid sample obtained at Unit 5 on June 4, 2012 had not been stored while checking the samples stored in lead container. As a result of investigating the entire control areas of Units 5-7 and the possibility of the sample being taken outside of the control area while collecting samples and investigating the operations related to sample storage, it was found that the hot lab was locked at all times and that the samples stored in the lead container were indistinguishable. Since samples were disposed once analysis is completed, it is assumed that the missing sample had been accidentally disposed down the sampling sink. There is no negative impact on safety considering that the disposed sample was drained to the waste liquid treatment system and must have been properly treated.

*Hot lab: Facility located in the control area where radiochemical analysis is performed on liquid and gas generated in the power station.

Article/clause of the technical specification to be applied

Article 3 (Quality assurance), 7.5 Operational implementation

Countermeasure

As recurrence prevention, identification mark was attached on samples and the sample storage area has been physically partitioned. The management of sample storage and disposal process has been improved through regularly checking the sample status and requiring a supervisor to be present during operation. In addition to the measures mentioned above, the requirements to fulfill will be clearly specified in the manual in order to achieve proper sample storage management and recurrence prevention.

Attachment 1: Disposal flow of the low-level radioactive waste samples at Unit 5

2. Incorrect setting for the background level on Unit 5 emergency gas treatment system radiation monitor

Outline

At the regular testing of Unit 5 emergency gas treatment system*¹ performed on November 1, 2012, the noble gas*² level was found to be above the detection limit. As a result of investigation, no abnormality was found on other radiation monitors. The noble gas level exceeding the detection limit was found to be due to the incorrect setting for the background*³ level on the emergency gas treatment system radiation monitor (it was set too low). The background level was set at the correct value. There is no impact on the outside environment since the incident was not due to the actual radioactive material release.

*¹ Emergency gas treatment system

System to prevent public radiation exposure in the surrounding area by preventing radioactive materials leaked into the reactor area of the Reactor Building at the time of the accident from being directly released into the atmosphere utilizing the high performance filter and the active carbon filter.

*² Noble gas: Xenon, krypton and argon

*³ Background: Radiation from nature which is taken into account at radiation measurement.

Article/clause of the technical specification to be applied

Article 3 (Quality assurance), 7.5 Operational implementation

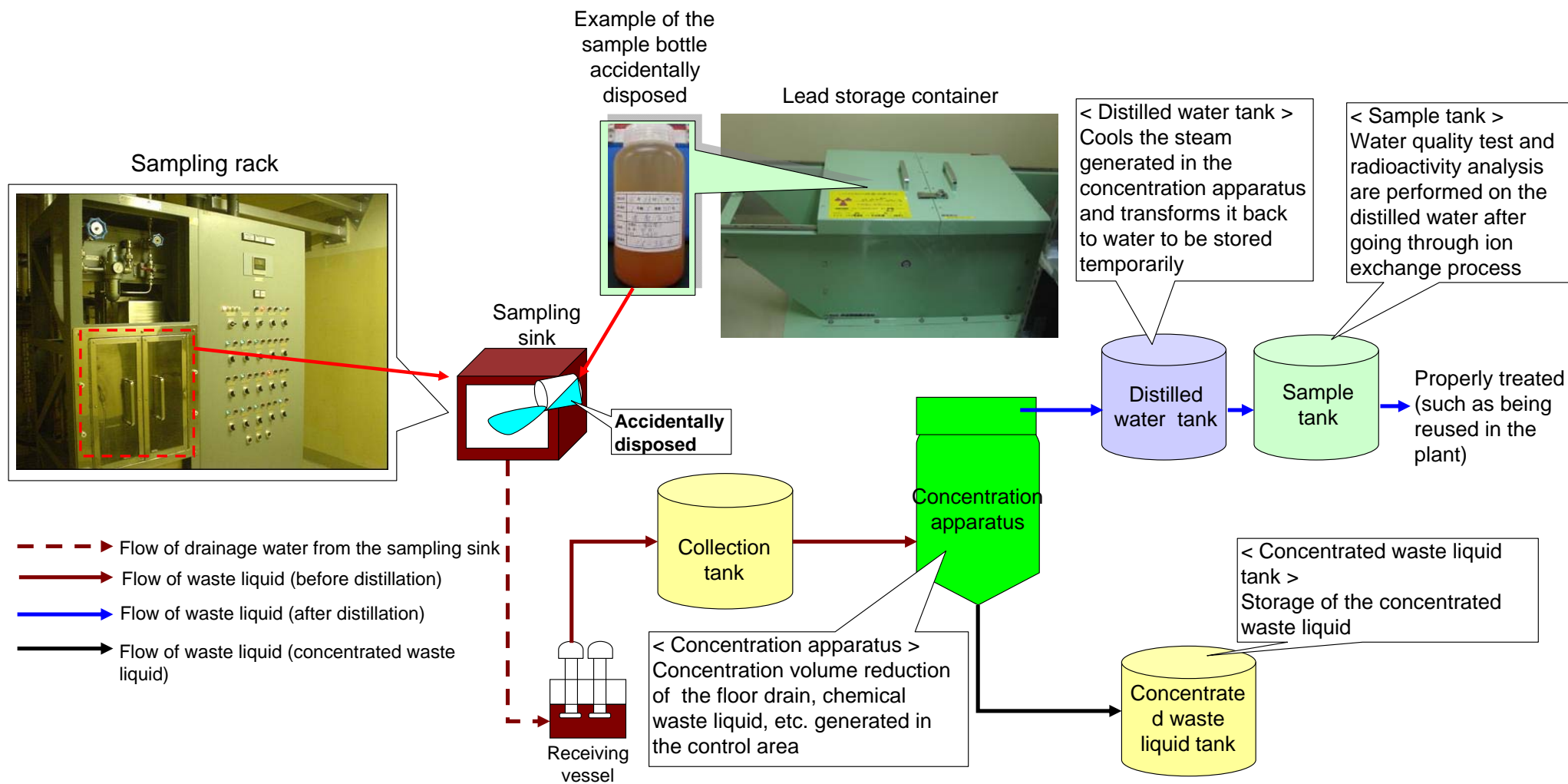
Countermeasure

As recurrence prevention, the setting method of background level has been revised. Considering that the workers on shift in charge were not promptly informed of the incorrect setting of background, we have reminded workers to promptly share information with the parties concerned in the case of incidents where radioactive material release is suspected. Software improvement allowing calculation and setting of the background level within the calculator is planned for better management and recurrence prevention.

Attachment 2: Concept of the background level

End

Disposal flow of the low-level radioactive waste samples at Unit 5



Concept of the Background Level

▲ Discrete Value of SGTS Radiation Monitoring

