

# Suspension of the Second Cesium Adsorption Apparatus (SARRY) for Reliability Improvement Work, Non-destructive inspection, etc.

< Reference >

March 13, 2013

Tokyo Electric Power Company

## ■ Outline

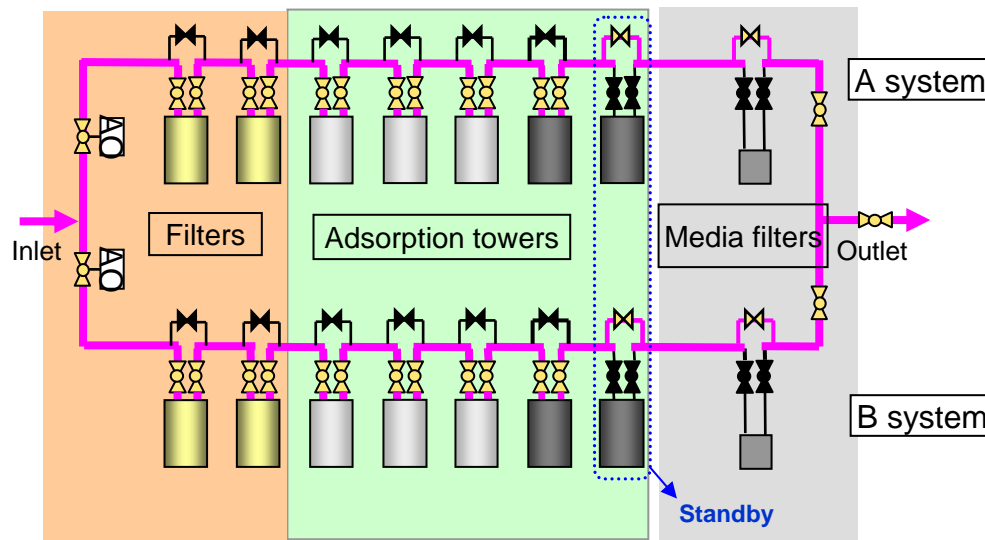
SARRY will be suspended in order to perform the following for reliability improvement.

- Installation of additional accumulated water transfer pumps (the second phase)
- Non-destructive inspection (Follow-up inspection)
- Vent pipe modification

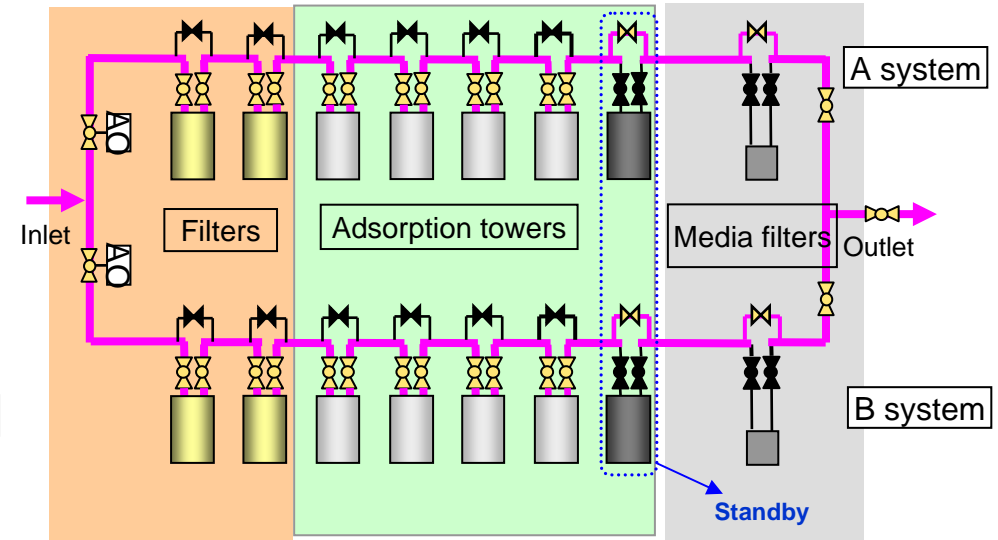
Considering that the water quality conditions have changed since SARRY started operation (decreased radioactivity density and chloride ion concentration), the arrangement of adsorption towers will be changed when restarting SARRY (see below).

## ■ Schedule: March 15-21 (suspended on March 15 and restarted on March 22)

SARRY will be suspended during the period above and the accumulated water will be treated by the cesium adsorption apparatus.



Overview of SARRY (Current adsorption tower arrangement)



Overview of SARRY (New adsorption tower arrangement)

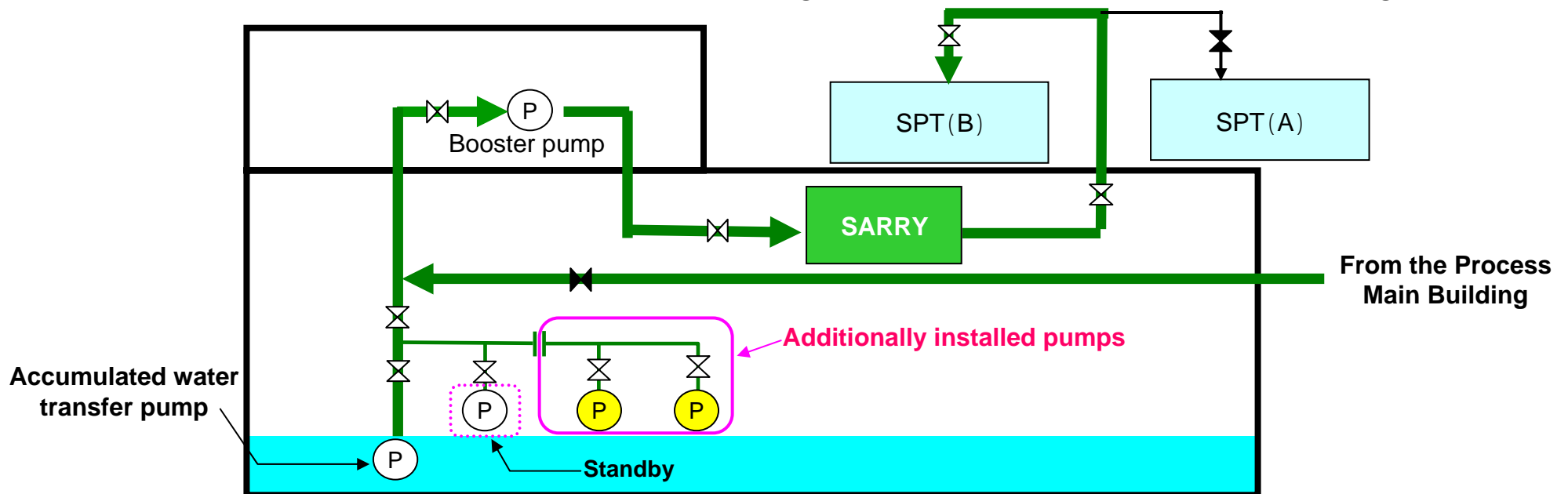
(Supplement) The adsorption towers indicated in black have higher adsorption capability compared to those indicated in white, even in the case of high chloride ion concentration.

# 1. Installation of additional accumulated water transfer pumps (the second phase)

## ■ Purpose

Though two accumulated water transfer pumps (underwater pumps) (one of which is a standby) are currently installed in the High Temperature Incinerator Building to avoid major impact on the accumulated water transfer in the case of a failure, two additional standby pumps will be installed in order to further enhance the reliability of accumulated water treatment, considering the difficulty to perform maintenance on a regular basis. During the first phase of work, the pipes and valves have been installed for the additional pumps.

## ■ Work overview (Overview of SARRY in the High Temperature Incinerator Building)



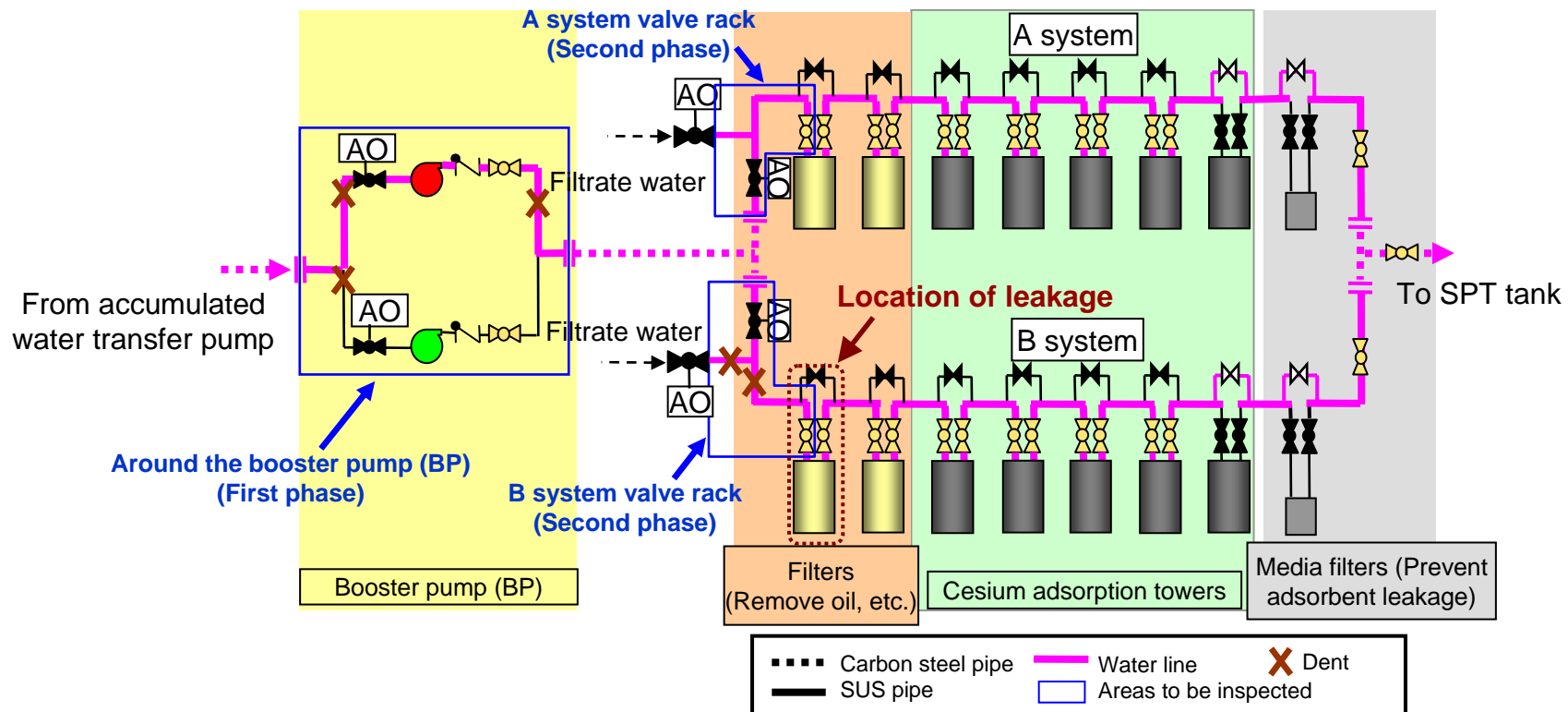
## 2. Non-destructive Inspection (Follow-up Inspection)

### ■ Purpose

In response to the leakage caused by crevice corrosion near the welded part of SARRY course filter outlet pipe which occurred in February 2012, non-destructive inspection (RT) is performed\* on the similar areas for the purpose of soundness confirmation. During the inspection, dent was found on welded areas (at 5 locations). As a follow-up inspection (about half a year has passed since the previous inspection), non-destructive inspection will be performed on the dent at 3 locations ( - ) found in the first phase.

\*The inspection was performed in two steps (First phase (around the booster pump): September-October 2012, Second phase (around the valve rack): January 2013). As no major corrosion was found as a result, the soundness was confirmed and no problem which may affect the continuation of SARRY operation was found. A follow-up inspection will be done on the dent on the welded areas (at 5 locations) found during the previous inspection.

### ■ Overview (SARRY installed in the High Temperature Incinerator Building)



### 3. Vent Pipe Modification

#### ■ Purpose

In November 2012, leakage from the vent port occurred due to the vent pipe being full of water as a result of closing the drain line for reliability improvement work. In response to this incident, a new drain line and sight glasses allowing for checking the drainage status will be installed during the apparatus suspension for recurrence prevention.

#### ■ Overview (SARRY and piping arrangement (Cross-section of the building))

