Higher density of outlet water at Multi-nuclide removal equipment System (B) Fukushima Daiichi NPS

March 19, 2014
TOKYO ELECTRIC POWER COMPANY

東京電力
TEPCO

Higher density of outlet water at Multi-nuclide removal equipment System (B)

<Overview>

- On March 18: We found that treated water (obtained on March 17) had higher radioactive density. Therefore, we determined that the treatment in System (B)* did not function enough.

  *Multi-nuclide removal equipment System (B) was suspended for acid cleaning pickling of cross flow filter.

- On March 18: Treatment work in System (A) and (C) were suspended, for the purpose of preventing the spread of contamination. The followings were also suspended: 1) Transferring treated water to treated water tank in J1 area, and 2) transferring treated water to a sample tank where treated water is temporarily stored.
- As a result of analysis, we found that the outlet water obtained in System (A) and (C) (obtained on the same day as System (B)) had a usual level of measurement value. We concluded that the removal performance had no abnormality.
- Treated water in a treated water tank (J1D in J1 area) obtained on March 18 and in sample tanks A, B, and C had almost the same level of radioactive density as outlet water in System (B).
- We will investigate into the cause of higher density level of outlet water in System (B), and specify the range of contamination of treated water tanks. We will take measures to this incidence including sample tanks to manage these situation.

Investigation results

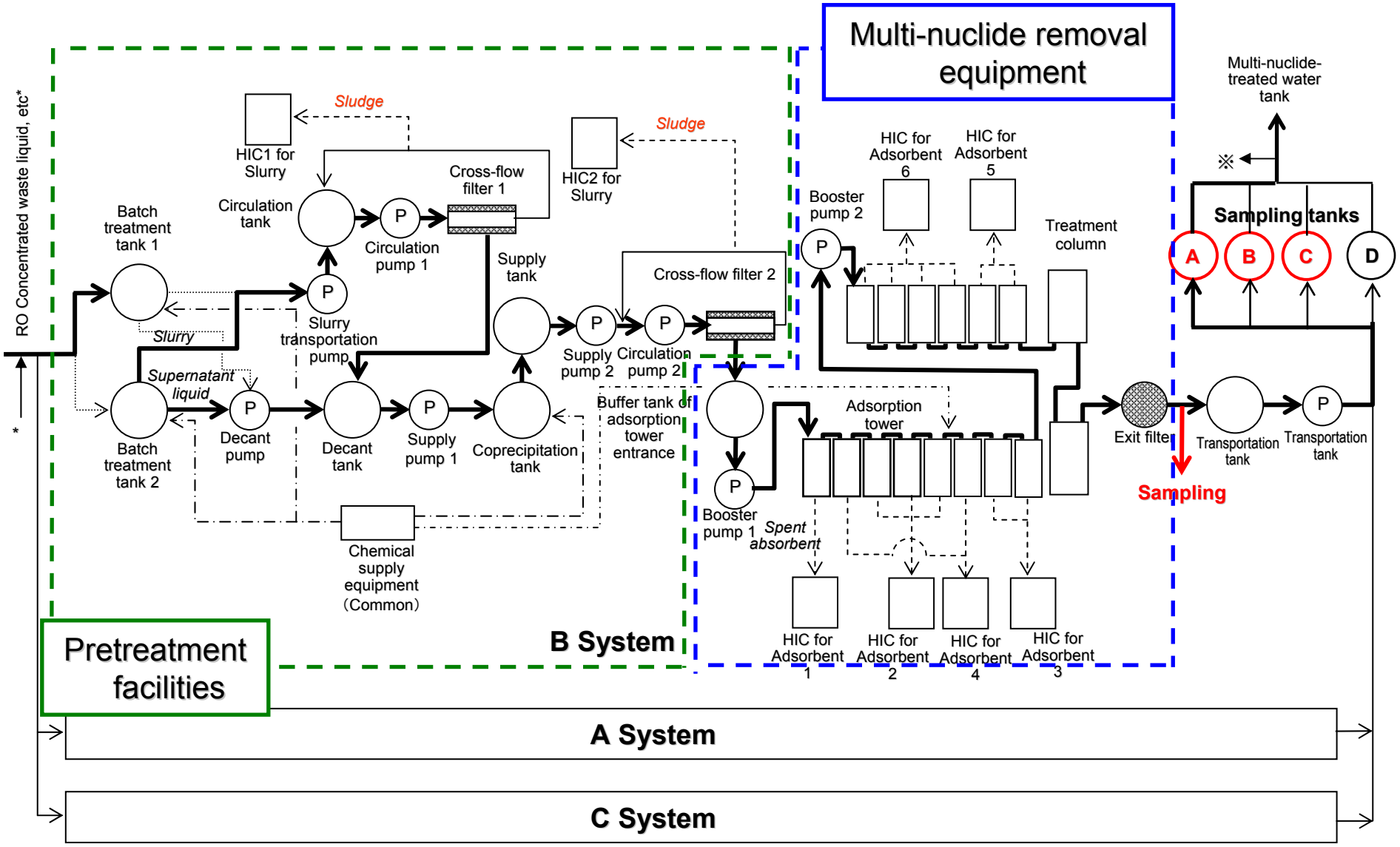
- We found treated water tank (J1D) had high radioactive density.
- We found that neither System (A) nor (C) had abnormality in removing function.

[Results of sampling water analysis]

Outlet of System (A): 2.7×10^2Bq/L (Obtained on March 17)
Outlet of System (C): 2.2×10^2Bq/L (Obtained on March 17)
Outlet of System (B): 1.1×10^2Bq/L (Obtained on March 14)
Outlet of System (B): 1.4×10^7Bq/L (Obtained at 10:45 AM on March 17)
Outlet of System (B): 1.1×10^7Bq/L (Obtained at 2:15 PM on March 17)
Sample tank A: 5.1×10^6Bq/L (Obtained on March 18)
Sample tank B: 3.6×10^6Bq/L (Obtained on March 18)
Sample tank C: 9.2×10^6Bq/L (Obtained on March 18)
J1 area tank (D1): 5.6×10^6Bq/L (Obtained on March 18)

We found that System (B) had no abnormality or leakage in system structure or equipments.

System Layout View



Further actions

The following actions are taken to investigate root cause and identify the degree of impact.

- Root cause investigation on the rise in radioactive density of water at the exit of system (B).
- Identification of contaminated area in J1 area tank
  - ・Isolation of each tank (completed on Mar. 13)
  - ・Sampling of each tank (under investigation)
- Treatment of water retained in sampling tanks and decontamination of tanks/ pipes in the system
  - ・Transportation of sampling tank C → A (under preparation)
  - ・Transportation of sampling tanks A/B/C to J1 area (under preparation)
  - ・Decontamination of pipes in the system (under preparation)

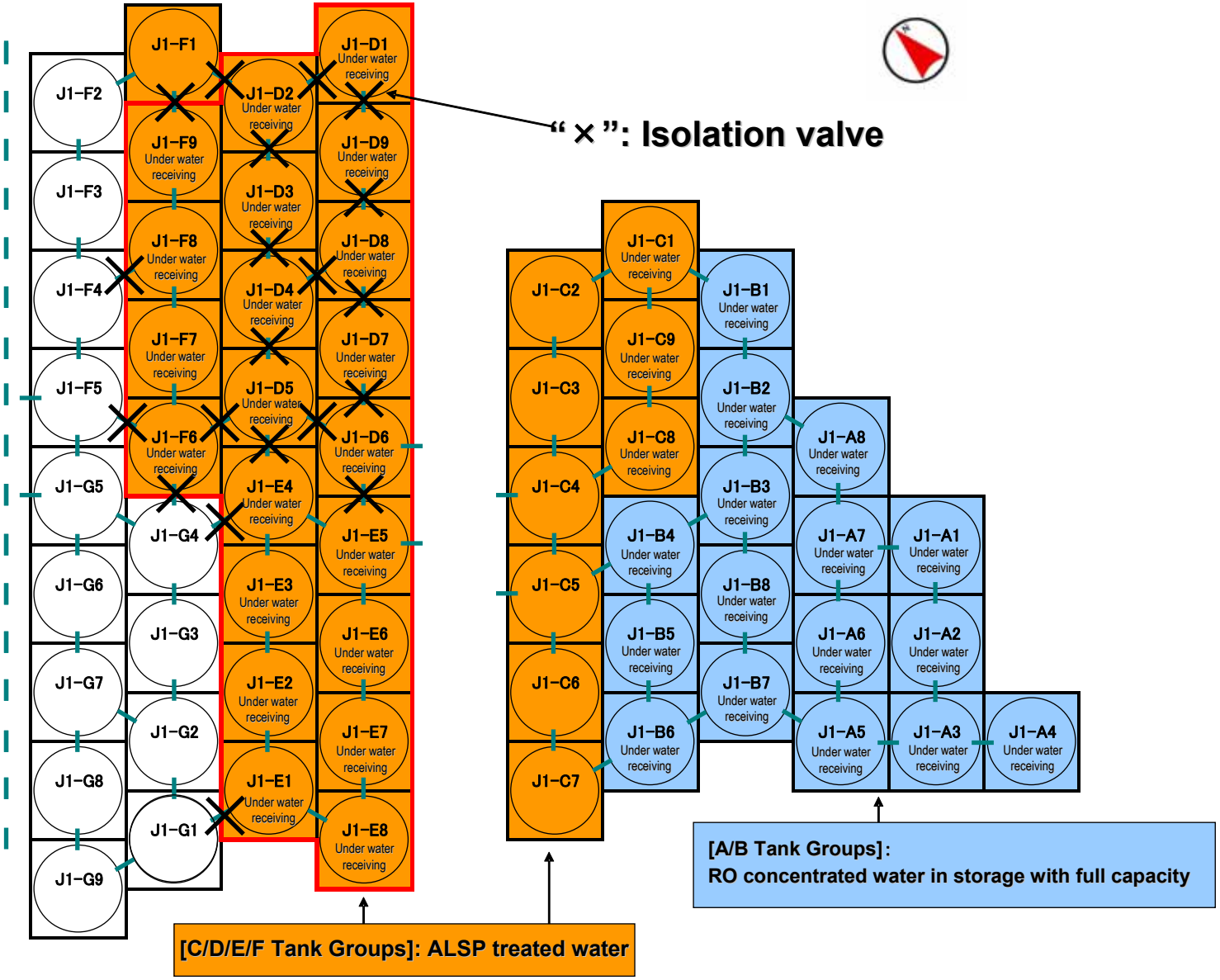
Reference: amount of retained water in sampling tanks

Tank name	A	B	C	D	Total
Retained water (m3)	Approx. 210	Approx. 460	Approx. 140	O	Approx. 810

End

(Reference)

Status of Treated Water through the Multi-nuclide Removal Equipment in J1 Area



Enclosed in red: 21 tanks to receive treated water from B group