

Installation of Radioactive Material Removal Instruments for the Spent Fuel Pool of Unit 2, Fukushima Daiichi Nuclear Power Station

【Objective】

To inhibit progress and damages of middle-term corrosion of structural materials of spent fuel pool of Unit 2 in Fukushima Daiichi Nuclear Power Station, components of seawater injected in the pool will be removed from now. However, Unit 2 and Unit 3 have high radioactivity concentration compared with Unit 4. If we remove salt component from the water without any treatment, the treated condensate water will have high radioactivity concentration. It will be a problem, that is, the treated water is more difficult to treat.

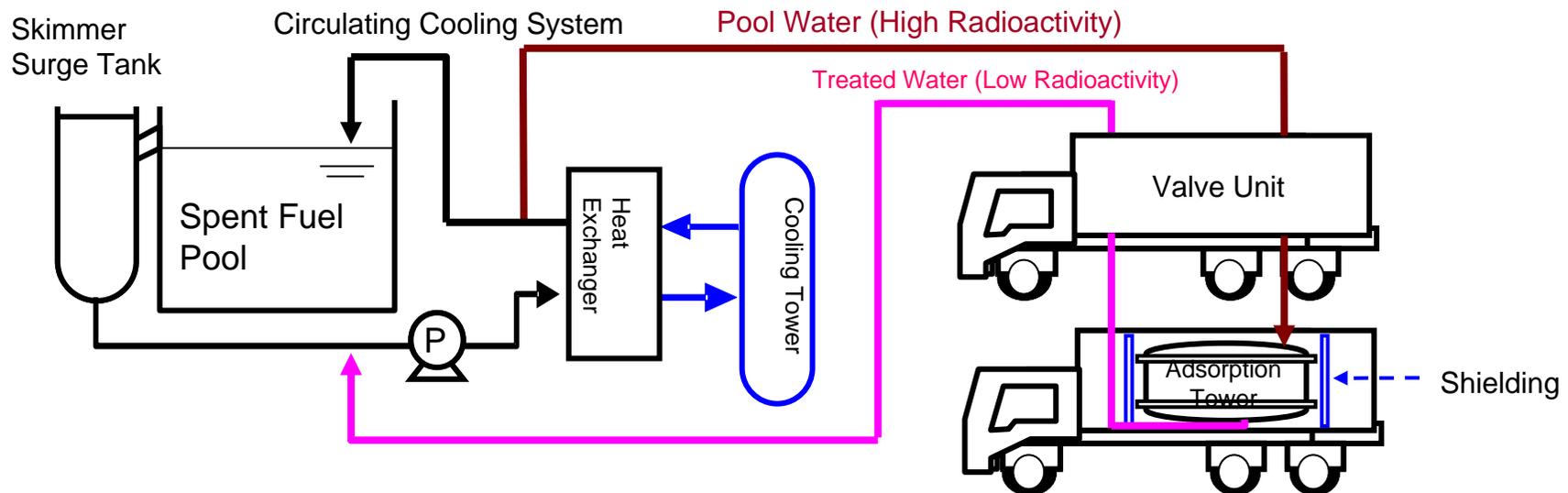
From this reason, before removal of salt component, we started removal treatment of radioactive materials in the spent fuel pool of Unit 2 from today (November 6).

【Overview】

- Pool water is partially taken from the circulating cooling system for spent fuel pool and is returned removing radioactive materials by cesium adsorption apparatus.
- It aims at reduction of radioactive material concentration of pool water from 10^5 number to $10^2 - 10^3$ number, by the cesium adsorption apparatus.
- To shortly install it in the limited space, the system is installed on vehicles like desalting facilities.
- At first, radioactive materials in the spent fuel of Unit 2 is removed. After the work, radioactive materials in the spent fuel of Unit 3 will be removed.

Sampling Results for Spent Fuel Pool

Unit	Date of Sampling	Cs137 (Bq/cc)	Cs134 (Bq/cc)	I-131 (Bq/cc)
Unit 1	8/19	2.3E+04	1.8E+04	ND
Unit 2	9/7	1.2E+05	1.1E+05	ND
Unit 3	8/19	8.7E+04	7.4E+04	ND
Unit 4	9/28	1.2E+01	8.2E+00	ND



Overview of Radioactive Material Removal Instruments for Spent Fuel Pool