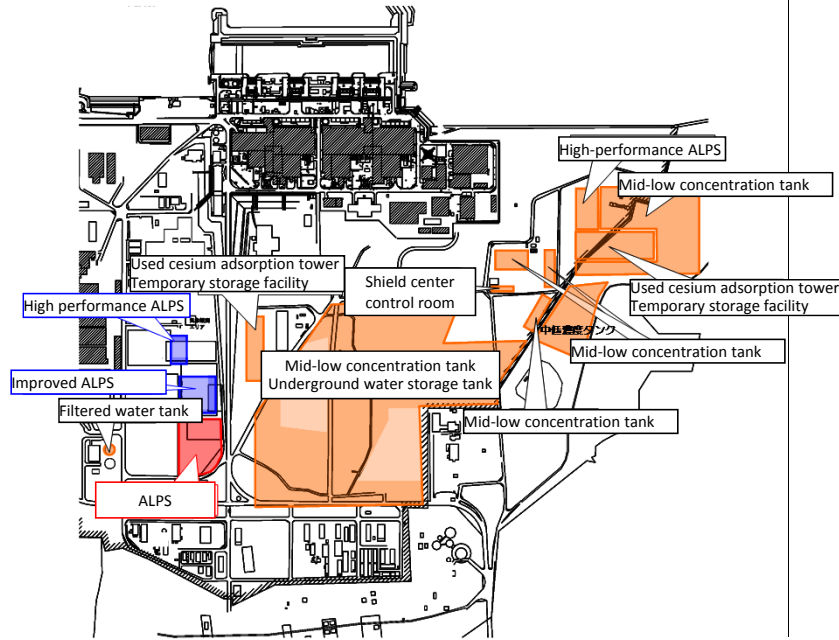


Multi-nuclide Removal Equipment ("ALPS") (Existing/ Improved/ High-performance)

Installation location of ALPS



Overview of Existing ALPS

- ALPS is introduced for the purpose of enhancing the treatment capacity of contaminated water.
- Capability of removing 62 kinds of radioactive materials (except for tritium) besides cesium.
- Currently, a purification performance verification test is undertaken.

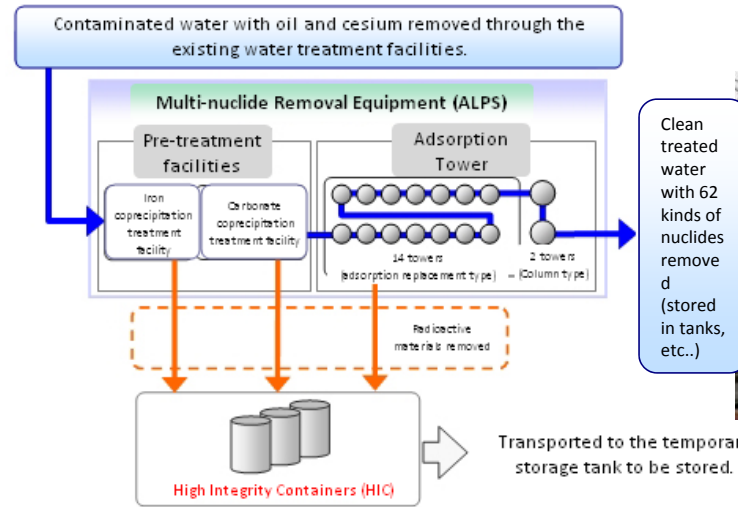


Image: Absorption towers

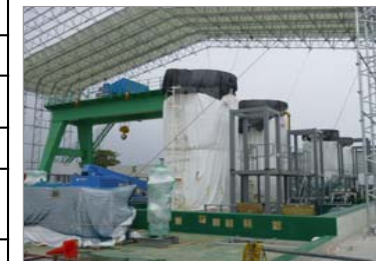
Installation of improved and high performance ALPS

- In order to realize the quickest processing of RO concentrated salt water* currently stored at Fukushima Daiichi Nuclear Power Plant, the full scale operation of the following two equipment is planned to be started within FY 2014.
 - Improved ALPS strengthening radiation concentration reduction ability (change of adsorbents and additional installation of absorption tower), in light of the operational experience with existing ALPS.
 - High performance ALPS (a project subsidized by the Ministry of Economy, Trade and Industry)
- Currently, the fabrication of parts of ALPS, bringing in of materials and equipment into the installation location, and the engineering works of building are ongoing.

Comparison of improved ALPS with High performance ALPS

Item	Improved ALPS	High performance ALPS	Existing ALPS
Treatment vol.	at least 250 m3 /day/unit	at least 500 m3 /day/unit	250 m3 /day/unit
No. of systems	3 units	1 unit	3 units
Pre-treatment method	Coagulating sedimentation method	Filter method	Coagulating sedimentation method
No. of absorption towers	18 towers	20 towers	14 towers + 2 towers
Seismic resistance class	Equivalent to Class B	Equivalent to Class B	Equivalent to Class B
Removal capabilities	62 nuclides to ND level (excl. tritium)	62 nuclides to ND level (excl. tritium)	Same as the left
Waste generation	N/A	To the extent of 1/20 of the existing ALPS	N/A

*1: RO concentrated salt water is a by-product generated in the course of processing retained water containing highly concentrated radioactive materials through the cesium removal equipment and the desalination system, which is increasing by 400m³ everyday.



Installation of High performance ALPS



Exterior of the bldg. of Improved ALPS