

Fukushima Daiichi Nuclear Power Station

Performance confirmation tests of the secondary treatment of water treated with multi-nuclide removal equipment

<Reference document>

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- Water treated with multi-nuclide removal equipment being stored in steel tanks at the Fukushima Daiichi Nuclear Power Station (hereinafter referred to as, "ALPS-treated water") for which the sum of the ratios of concentrations (excluding tritium) required by law equals 1 or higher is being subjected to secondary treatment to reduce the concentrations of radioactive substances in the water so that the sum of the ratios of concentrations required by law ※ is less than 1.
- Since the purification of strontium-treated water was completed on August 8, 2020 (excluding water being stored in tanks in operation), in September 2020 we will start confirming the performance of secondary treatment by examining approximately 2,000 m³ of ALPS-treated water for which the sum of the ratios of concentrations (excluding tritium) required by law exceeds 100.

<[Announced on March 24, August 11, and August 27, 2020](#)>

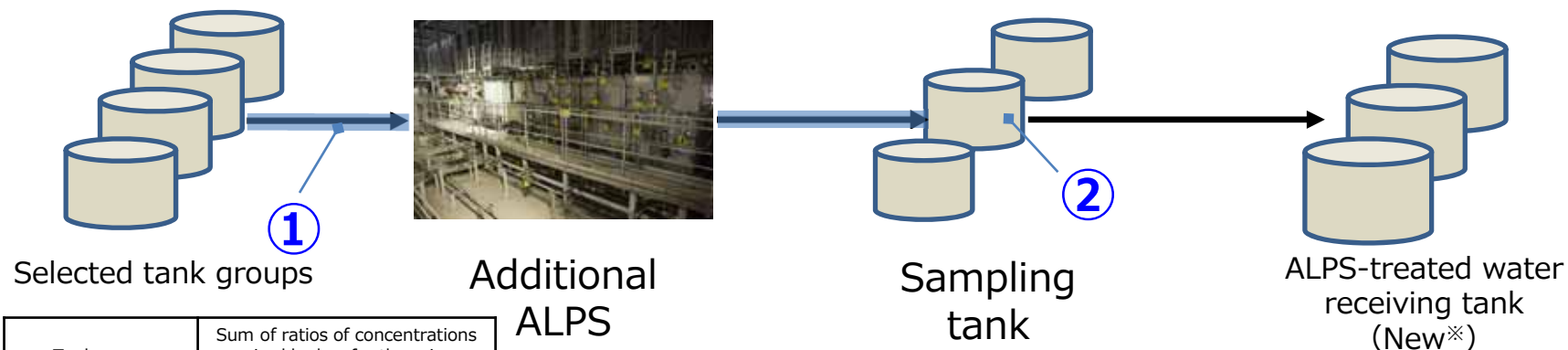
※ : Concentration ratios of legally required limits of each radioactive material are calculated and totaled

- Secondary treatment performance confirmation tests will begin on September 15 in order to verify whether or not secondary treatment using ALPS is reducing the sum of the ratios of concentrations, with the exception of tritium, required by law to less than 1 and also to review nuclide analysis procedures and processes.
- Tank group J1-C (sum of the ratios of concentrations required by law for the seven primary nuclides: 3,791 (J1-C1)) and tank group J1-G (sum of the ratios of concentrations required by law for the seven primary nuclides: 153 (J1-G1)) were selected to review secondary treatment performance.
- Performance confirmation tests will be implemented until the middle of October (tentative) using additionally installed ALPS. Water remaining in ALPS equipment will be transferred to each tank group to be used for the tests after which approximately 1,000m³ from each tank group (total: approximately 2,000m³) will be subject to secondary treatment and samples of the treated water will be taken.
- The sampled water will be analyzed for 62 nuclides that are targeted for removal in addition to radioactive carbon (C-14) and tritium (H-3) for several months (tentative).

<Reference> Nuclides targeted for analysis and sampling locations

- Sampled water will be analyzed for the 62 nuclides targeted for removal in addition to radioactive carbon (C-14) and tritium (H-3)
- The sampling locations for performance confirmation tests will be the ALPS inlet and the sampling tank.

	Sample location	Nuclides targeted for analysis
①	Prior to treatment: ALPS inlet	<u>62 nuclides targeted for removal, a radioactive carbon (C-14), tritium (H-3)</u>
②	After treatment: Sampling tank	<u>62 nuclides targeted for removal, a radioactive carbon (C-14), tritium (H-3)</u>



Tank group	Sum of ratios of concentrations required by law for the primary 7 nuclides
J1-C1	3,791
J1-G1	153

※ : This is a new tank. Other ALPS-treated water is being stored in the current receiving tank.

<Reference> Site diagram

