Recommencement of operation of additional multi-nuclide removal equipment system (B) and shutdown of additional multi-nuclide removal equipment system (C) at the Fukushima Daiichi Nuclear Power Station

- During the inspection of additional multi-nuclide removal equipment system (hereinafter referred to as, "Additional ALPS") (B) performed on October 27, 2020 in conjunction with the recommencement of operation of said system, it was found that water sampled from the buffer tank outlet was slightly cloudy, and that water in the cross flow filter (hereinafter referred to as, "CFF") was quite cloudy so additional ALPS (B) was shutdown. The concentration of calcium (hereinafter referred to as, "Ca") in water sampled from the buffer tank outlet on October 27, 2020 was 4ppm and was deemed to not have any impact on the removal of nuclides (performance) from treated water coming from the ALPS outlet.
- Replacement of the additional ALPS (B) CFF filter elements was completed on May 28, 2021. Preparations are currently being made to bring the system back online as we plan to recommence operation of additional ALPS (B) on June 14.
- High concentrations of Ca were found in water sampled from the additional ALPS (C) buffer tank on June 5, 2021, and water in the CFF drain line was found to be slightly cloudy, so additional ALPS (C) was shut down. The concentration of Ca found in water sampled from the buffer tank was 17ppm, but since the system was shut down quickly there was no impact on the removal of nuclides (performance) from treated water coming from the ALPS outlet. The additional ALPS (C) CFF filter elements will also be replaced going forward.
- Additional ALPS (A) was to be shut down this month in order to replace the filter elements, but given that Ca concentrations in CFF filtered water were found to be rising slightly (no cloudiness), the work schedule was pushed up and six CFF filter elements were replaced today (June 8). We expect to bring the system back online in July or thereafter.
- We have enough treatment facility to handle daily water treatment so at current time these steps that have been taken will have no impact on water purification.
 - * The Ca concentration limit for buffer tank outlet water is 10ppm, but even if this concentration exceeds 10ppm, there would be no immediate impact on the absorption performance of adsorption towers or the quality of water from system outlets.

<Reference> System diagram and CFF drain line water Ca concentration measurement results for additional ALPS systems (A) and (C)

CFF secondary drain water Ca concentration measurements for additional ALPS systems (A) and (C)

