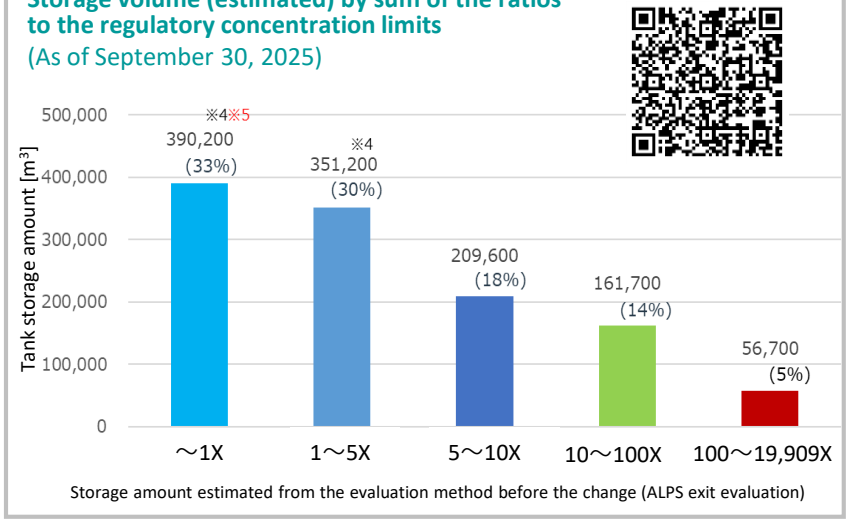
Fukushima Daiichi Nuclear Power Station
Changes to the amount of ALPS treated water, etc. broken down by the sum of ratios to regulatory concentration limits (estimate) on Treated Water Portal Site

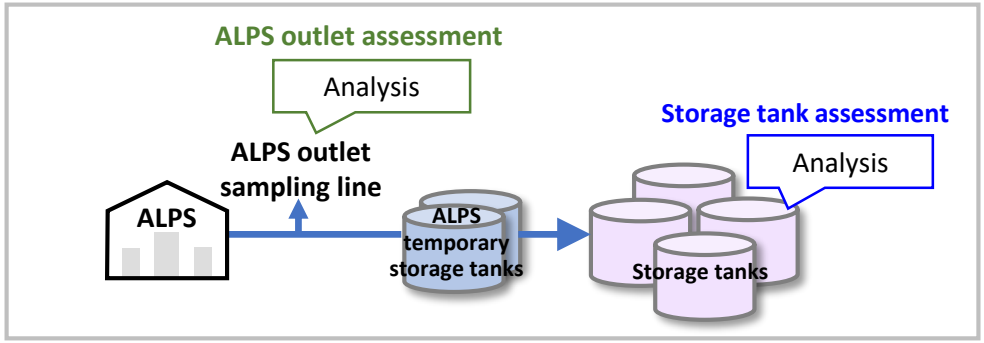
- The data in the graph on the TEPCO website's Treated Water Portal Site showing the amount of ALPS treated water, etc. broken down by the sum of ratios to regulatory concentration limits (estimates), which had been based on ALPS outlet assessments (analysis results for water regularly sampled from the ALPS outlet), is now based on data from storage tank assessments (analysis results for water sampled from storage tanks). (As of 5PM today, January 22)
- When the portal site was launched in 2018, data from storage tank assessments was insufficient, so the ALPS outlet assessment data was employed to estimate the sum of the ratios to regulatory concentrations in tanks.

(From the TEPCO website)



- Now that we have sufficient storage tank assessment data, and in light of the fact that the amount of stored water per sum of the ratios to regulatory concentrations (estimates) will change in conjunction with the commencement of secondary treatment of treated water to be re-purified, this storage tank assessment data will now be used when formulating ※ fiscal year discharge plans.
- **Since the water analyzed is sampled from the storage tanks, storage tank assessments will enable us to obtain values that better reflect the actual conditions of the sum of the ratios of legally required concentrations (estimates) in each tank group.**

※ **Water in measurement/confirmation tanks is analyzed prior to discharge into the sea and there have been no changes made to the discharge method or procedure.**



- We will continue to provide information domestically and overseas in an easy-to-understand manner as we strive to deepen understanding about the safety of ALPS treated water discharge into the sea.

［Reference］ Comparison of ALPS outlet assessment and storage tank assessment (assessment methods)

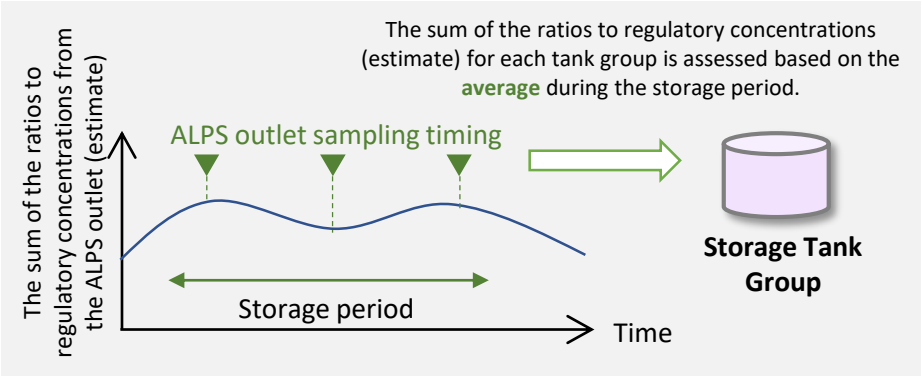
ALPS outlet assessment

① For each tank group water is sampled from the ALPS outlet from the beginning until the conclusion of water transfer to assess the ratio to regulatory concentrations (estimates) from averages obtained during analysis of the primary seven nuclides※1

② The contribution from C-14 is deemed to be 0.11 (maximum) from past analysis results.

③ The contribution from other nuclides excluding the primary seven nuclides and C-14 is deemed to be 0.3.

④ The sum of ①～③ is deemed to be the sum of the ratios to regulatory concentrations (estimate).



※1 Cs-134, Cs-137, Sr-90, I-129, Co-60, Sb-125, Ru-106
※2 For some of the tanks, the analysis value or maximum value for C-14 (0.11), and the analysis value for other nuclides (value obtained by sampling water from each tank in each tank group, making a mixed specimen from the samples and analyzing it) has been added to the ratios to regulatory concentrations (estimates) calculated from analysis of the primary seven nuclides.

Storage tank assessment

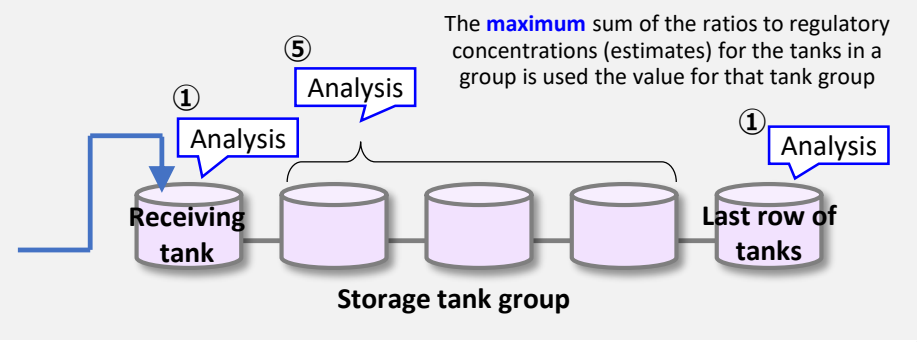
① The ratios to regulatory concentrations (estimates) for each tank group are assessed from the analysis results for the seven primary nuclides※1 in water sampled from the "receiving tank" or "the tank furthest from the receiving tank".

② In regards to the contribution of C-14, if the tank has been analyzed, the analysis value is used. If the tank has yet to be analyzed, the maximum value obtained in the past (0.11) is used.

③ The contribution from other nuclides excluding the primary seven nuclides and C-14 is deemed to be 0.3.

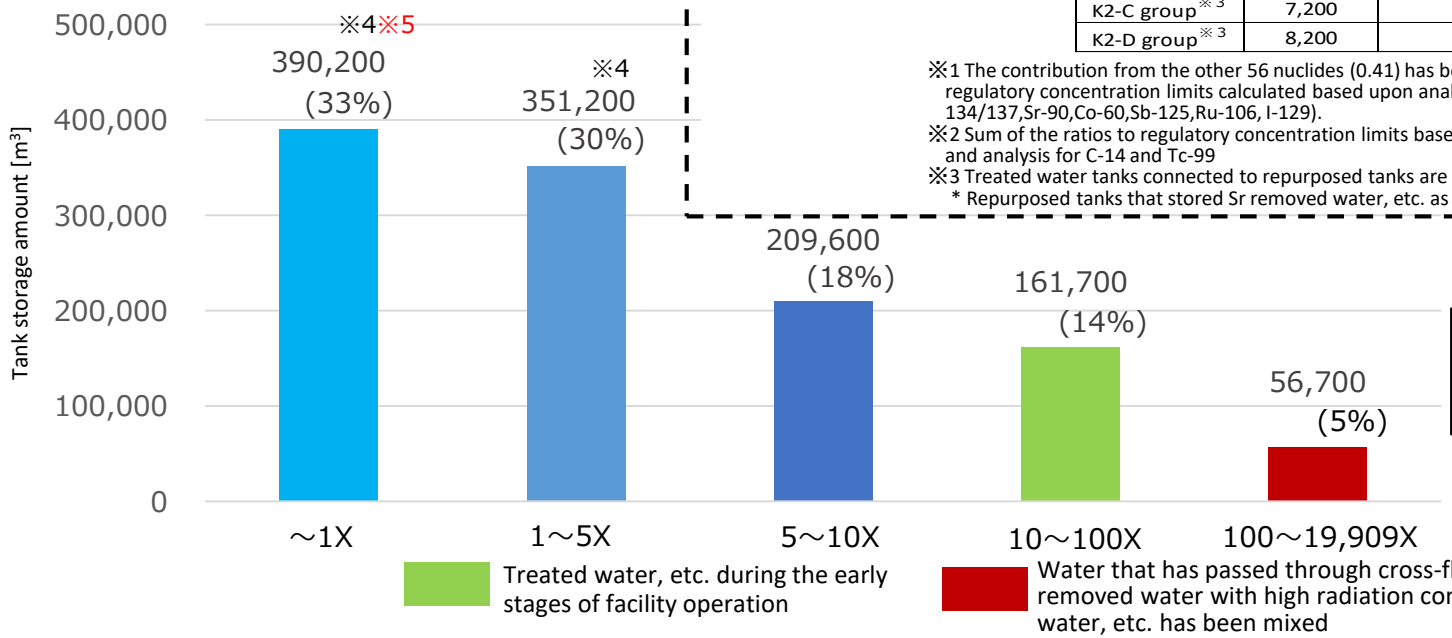
④ The sum of ①～③ is deemed to the be the sum of the ratios to regulatory concentrations (estimate).

⑤ If the sum of the ratios to regulatory concentrations (estimates) in both tanks is less than one in ④, then ①～④ is implemented for each tank that makes up the tank group, and the maximum sum of the ratios to regulatory concentrations (estimates) for each tank is used as the value for that tank group.

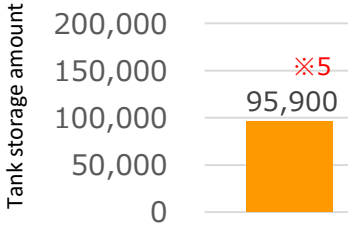


[Prior to changes] Storage amounts of ALPS treated water, etc. broken down by the sum of ratios to regulatory concentration limits (estimate) (As of September 30, 2025)

TEPCO



Repurposed tanks *



Sum of the ratios to the regulatory concentration limits for treated water to be re-purified in repurposed tanks

	Storage amount m³	Sum of ratios to regulatory concentration limits		
		Before stored in tanks※1	After stored in tanks※2	
			Front row	Back row
G3-E group	9,000	0.61	0.50	1.84
G3-F group	8,100	0.48	0.39	1.16
G3-H group	6,400	0.46	8.88	113.18
G3-G group	12,300	0.45	0.23	2.66
H8-A group	2,100	1.79	34.40	23.62
H8-B group	9,600	1.79	39.23	136.08
J1-B group	8,400	10.11	464.51	221.78
K1-CD group	11,300	0.46	0.10	0.06
K2-A group	7,200	0.45	0.06	1.38
K2-B group	6,100	0.46	1.08	2.33
K2-C group※3	7,200	0.44	0.05	17.42
K2-D group※3	8,200	0.45	0.10	17.86

※1 The contribution from the other 56 nuclides (0.41) has been added to the sum of the ratios to regulatory concentration limits calculated based upon analysis of the seven primary nuclides (Cs-134/137,Sr-90,Co-60,Sb-125,Ru-106, I-129).
※2 Sum of the ratios to regulatory concentration limits based on the seven nuclides mentioned above and analysis for C-14 and Tc-99
※3 Treated water tanks connected to repurposed tanks are included.
* Repurposed tanks that stored Sr removed water, etc. as storage tanks for ALPS treated water, etc.

＊Sum may not be 100% because storage percentages have been rounded to integers.

Treated water, etc. during the early stages of facility operation

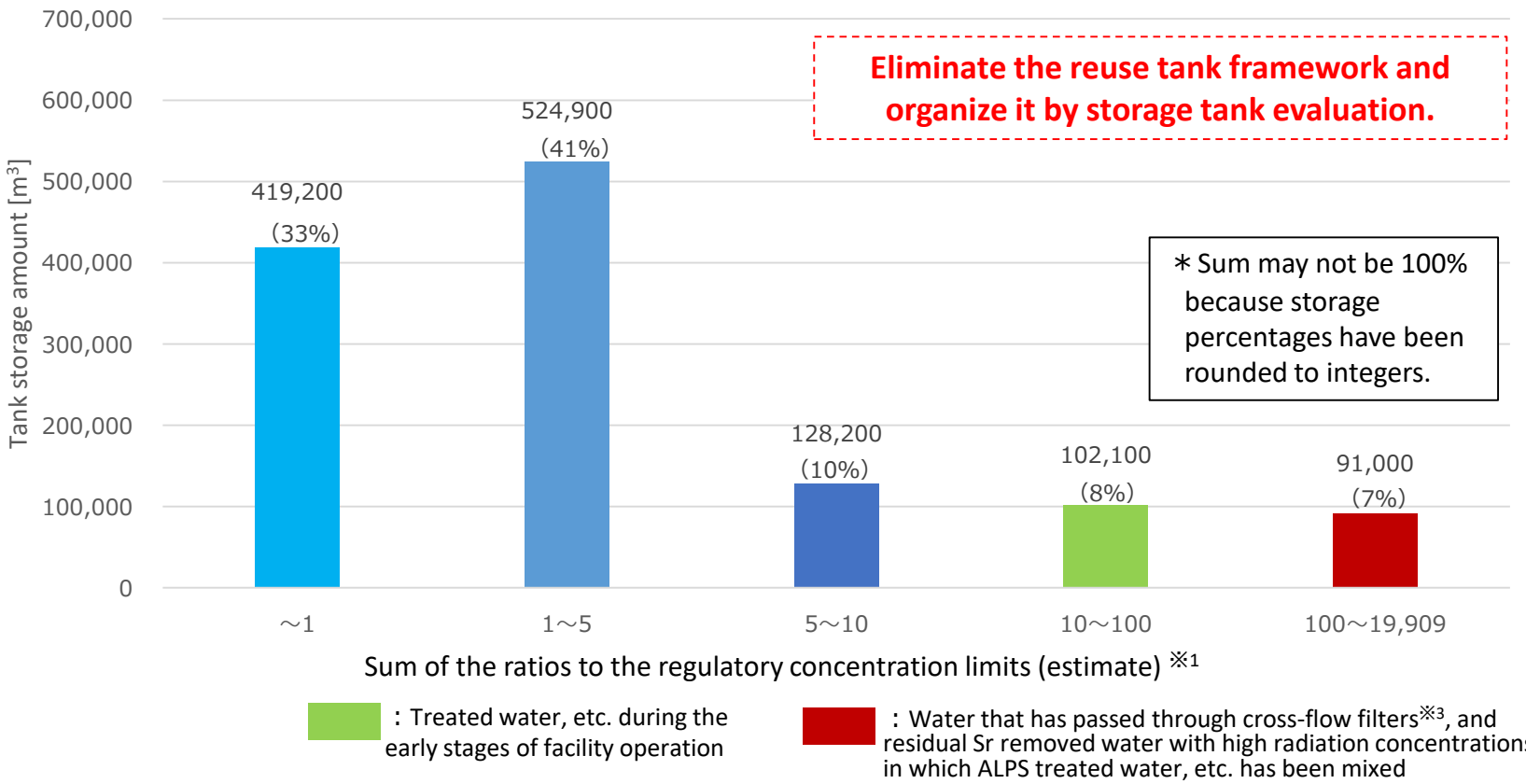
Water that has passed through cross-flow filters※6, and residual Sr removed water with high radiation concentrations in which ALPS treated water, etc. has been mixed

※4 Includes ALPS treated water, etc. that was additionally transferred (after October, 2018) after measuring radiation concentrations. Since only a small amount of water was additionally transferred the estimated sum of the ratios to regulatory concentration limits for the 62 nuclides in the relevant tank groups has been deemed to be the same as the value calculated from actual measurement results.

※5 ～1X: decreased by 20,400 m³ due to discharge of ALPS treated water. Repurposed tanks: increased by 900 m³ since concentrated liquid waste that was pre-processed on a trial basis was transferred.

※6 In FY2013, slurry treated to remove carbonate precipitation treatment was accidently allowed to flow out of the facility outlet due to a nonconformance with the existing ALPS cross-flow filter.

[After changes] Storage amounts of ALPS treated water, etc. broken down by the sum of ratios to regulatory concentration limits (estimate) (As of September 30, 2025)



※1 A conservative value calculated by adding the maximum value of C-14 (0.11) or the analytical value and the total of other nuclides, estimated to be 0.3, to the concentration ratio required by law (estimated value) calculated from the analytical values of the primary seven nuclides (Cs-134, Cs-137, Sr-90, I-129, Co-60, Sb-125, Ru-106). For some tanks, the value calculated by adding the maximum value of C-14 (0.11) or the analytical value, and the analytical values of other nuclides (analysis values obtained by collecting water from each tank in each tank group and mixing them).

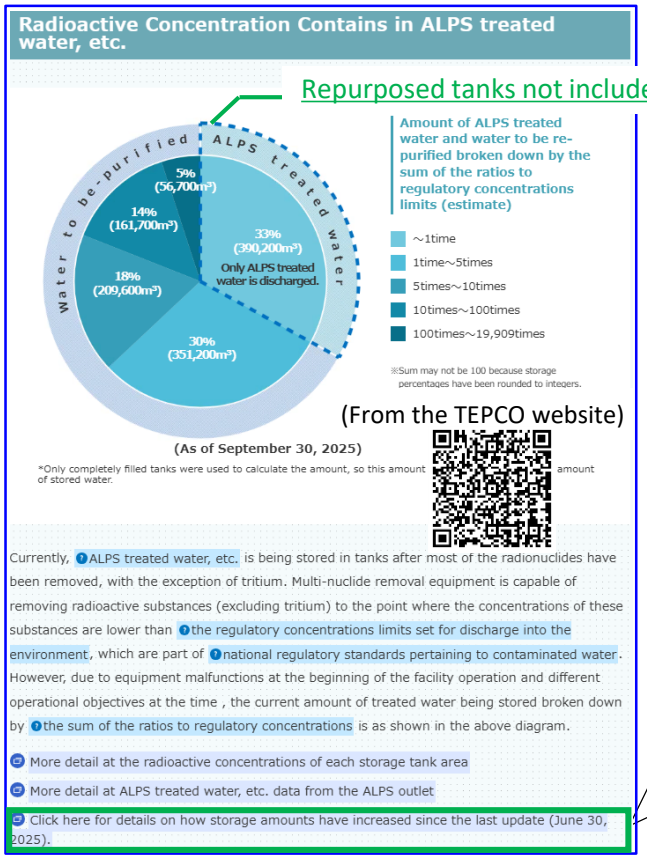
※2 The tank storage amount includes tanks that were used to store water before ALPS treatment and are now being reused as storage tanks for ALPS treated water, etc.

※3 In FY2013, slurry treated to remove carbonate precipitation treatment was accidently allowed to flow out of the facility outlet due to a nonconformance with the existing ALPS cross-flow filter.

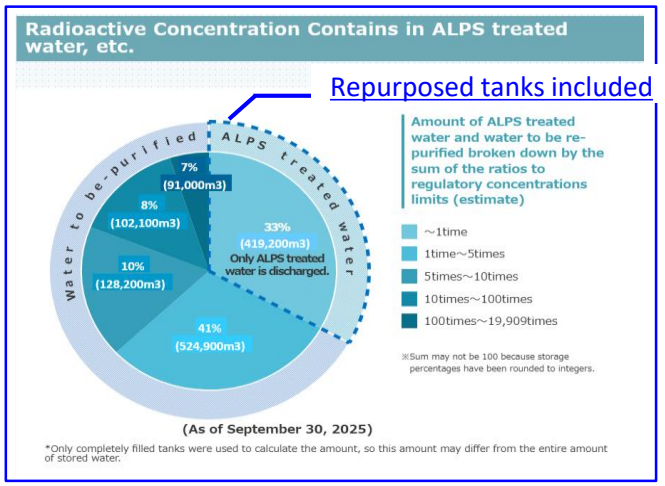
[Reference] Handling repurposed tanks

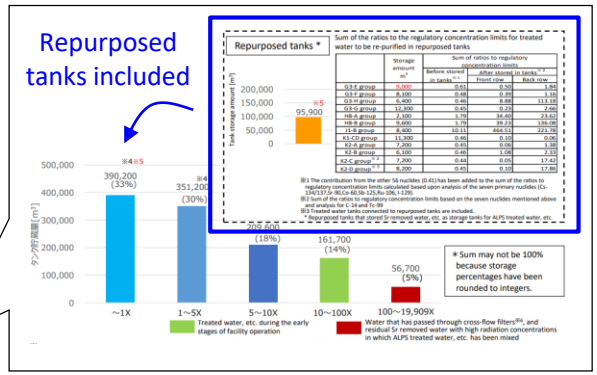
- Repurposed tanks refers to tanks that were used to store water that had yet to be treated with ALPS, etc. and were repurposed for the storage of ALPS treated water, etc.
- These had been aggregated separately since the water residue in the tanks created uncertainty about radioactivity concentration after repurposing.
  - ➢ Since the analysis results from storage tank assessments have been obtained, the data on repurposed tanks has also been revised in conjunction with the change to the assessment method. As a result, this data is now included in the total storage amount for each ratio to regulatory concentration. (The same as the pie graph for “Radioactivity Concentration of ALPS treated Water, etc.” on the Treated Water Portal Site)

[Prior to changes]



[After changes]





Clicking the link will show details on the repurposed tanks.

After changes the total now includes the repurposed tanks which had been noted separately.