Overview of the IAEA Report on Its Review of Safety Related Aspects of Handling ALPS Treated Water at Fukushima Daiichi Nuclear Power Station (Fourth Review Mission after the Start of the Discharge)
Tokyo Electric Power Company Holdings, Inc. Fukushima Daiichi Decontamination and Decommissioning Engineering Company The 1st edition October 2025

- ✓ In order to make steady progress with the decommissioning of the Fukushima Daiichi Nuclear Power Station (FDNPS), TEPCO began the discharge of ALPS treated water into the sea from the FDNPS on August 24 in 2023.
- Before the discharge of the ALPS treated water, the series of-reviews had been conducted by the International Atomic Energy Agency (IAEA), a specialized agency in the nuclear field. On July 4 in 2023, the IAEA published "Comprehensive Report on the Safety Review of the ALPS-Treated Water at the Fukushima Daiichi Nuclear Power Station" as the conclusion of those reviews.
- In the comprehensive report, the IAEA stated, <u>"The IAEA is committed to engaging with Japan on the discharge of ALPS treated water not only before, but also during and after the treated water discharges occur." and <u>"Additional review and monitoring activities are envisaged that will continue and which will provide additional transparency and reassurance to the international community by continuously providing for the application of the relevant international safety standards</u>"</u>
- ✓ In May 2025, the IAEA Task Force visited Japan to conduct its fourth review mission on Handling of ALPS treated water at FDNPS after the start of the discharge. On September 12 in 2025, the IAEA published a report "Review of Safety Related Aspects of Handling ALPS treated water*1."
- This leaflet provides an overview of the review mission and the report.
- *1 The report is available on the IAEA website. The report can be accessed by scanning the 2D barcode on the right.

https://www.iaea.org/sites/default/files/fourth-review-mission-to-japan-after-the-start-of-advanced-liquid-processing-system-treated-water-discharge-0120925.pdf



the Link to the report

Overview of the Review Mission

Schedule: From May 26 to 30 in 2025

- The IAEA's review has been conducted by the IAEA Task Force, which consists of the IAEA
 officials, including Director and Coordinator Gustavo CARUSO, and international experts⁺¹⁺².
- The Government of Japan, Fukushima Prefecture and TEPCO discussed the status and the
 results of the monitoring conducted on the premises of TEPCO's FDNPS and the sea area
 monitoring related to the discharge of ALPS treated water into the sea and the consistency of
 the monitoring with the international safety standards with the Task Force.



IAEA Director and Coordinator Gustavo Caruso at Opening Session (May 26 in 2025, MOFA)



The IAEA Task Force at the sampling point of diluted ALPS treated water (May 28 in 2025, FDNPS)



The IAEA Task Force at the transfer facility (May 28 in 2025, FDNPS)

- †1 Six members of the IAEA officials and seven members of international experts have visited Japan. (from Argentina, Canada, China, the Republic of Korea, Russia, the United States and Vietnam).
- The details of the IAEA reviews before and after the start of the ALPS treated water discharge are here [Safety review by the IAEA, Treated Water Portal Site (TEPCO)]
 - https://www.tepco.co.jp/en/decommission/progress/watertreatment/safetycheck/index-e.html



Safety review by the IAEA Treated Water Portal Site

Key Points of the Report

- The Task Force did not identify anything that is inconsistent with the requirements in the relevant international safety standards. Therefore, the IAEA can reaffirm the fundamental conclusions of its safety review as outlined in the Comprehensive Report.
- The Task Force noted that the monitoring programmes carried out for the ALPS treated water are consistent with the relevant international safety standards and guidance. The programmes are well described and implemented, and results are consistent with the conclusions of the Radiological Environmental Impact Assessment (REIA) which states the discharges of ALPS treated water pose negligible risk to the public and environment.
- The Task Force confirmed that the equipment and facilities are installed and operated in a manner that is consistent with the Implementation Plan and the relevant international safety standards.

Conclusions of the Comprehensive Report, (Published July in 2023)

- The approach to the discharge of ALPS treated water into the sea, and the associated activities by TEPCO, NRA and the Government of Japan, are consistent with relevant international safety standards.
- The discharge of the ALPS treated water, as currently planned by the TEPCO, will have a negligible radiological impact on people and the environment.





The comprehensive Report (Left), and the Links to the paper (right)

Future activities of the IAEA

 The IAEA will continue its ongoing verification activities and independent testing and analysis on site to provide comprehensive, transparent, and independent verification of the accuracy and reliability of the data reported by TEPCO and the Government of Japan.



The Comment from Director General Grossi of the IAEA on publishing the comprehensive report (July in 2023)

We (the IAEA) are going to stay here (Fukushima) with you for decades to come ... until the last drop of the water has been safely discharged. The IAEA will review, inspect, and validate the plan's efficacy over the coming decades.

Director General Rafael Grossi of the IAEA

For details on the IAEA's independent sampling and corroborative analysis, please see here. TEPCO: Treated Water Portal Site Safety review by the IAEA

https://www.tepco.co.jp/en/decommission/progress/watertreatment/safetycheck/index-e.html



TEPCO will continue to receive reviews by the IAEA in light of international safety standards and take all possible measures to ensure safety while providing information on data related with the discharge of ALPS treated water and reviews based on scientific evidence to both domestically and internationally in a highly transparent manner.

IAEA (International Atomic Energy Agency)

- The IAEA is an organization under the United Nations working for the safe and peaceful use of nuclear energy.
- Since its establishment in 1957, the IAEA has worked with 180 member states (as of November 2024) and related organizations to promote the peaceful use of nuclear energy and to prevent the military use of it.
- To protect human health and the environment from radiation, the IAEA has the authority to establish and adopt "Safety Standards" as recognized under the IAEA Statute of the United Nations.
- The IAEA Environment Laboratories which are staffed by experts in various fields, have been established to provide comprehensive knowledge on the environmental effects of radioactive materials and their protection.
- The IAEA also reviews the entire decommissioning program of the Director General Rafael Grossi (May 2022) Fukushima Daiichi Nuclear Power Station.





Observation of the ALPS by the IAEA

The IAEA official page related to the ALPS treated water



Example of the web topics

- Overview of the review mission
- Publication of the report of the review
- Explanation of structure and principles of the ALPS treated water discharge facility
- Monitoring methods of ALPS treated water by the IAEA etc.



◆ The IAEA official page

The IAEA official page in Japanese



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https://www.tepco.co.jp/en/decommission/progress/watertreatment/index-e.html