Efforts and Progress for

Involvement of the IAEA in Discharge of "ALPS Decommissioning Treated Water"

- The IAEA conducts reviews as a third party in its professional capacity as an authoritative UN-related agency with specialized knowledge in the field of nuclear energy.
- On July 4th, 2023, the IAEA published its comprehensive report stating that discharges of the ALPS treated water to the sea are "consistent with relevant international safety standards" and "would have a negligible radiological impact on people and the environment."
- The IAEA will get involved in securing the safety of discharge of ALPS treated water over years even

during and after discharge, not limited to reviews prior to discharge. July 2023 July 2021 February 2022 onward Government of Japan and the IAEA signed Review missions to relevant Publication of the IAEA Comprehensive Report the TOR (Terms of Reference) of the organizations (five times in Establishment of the IAEA office at the Fukushima implementation of the safety reviews of the total by June 2023) Dalichi NPS ALPS treated water. Involvement of the IAEA after the discharge of ALPS treated water September 2021 onward April 2022 onward Provide data on discharge to the international Holding of meetings of the IAEA Task Publication of reports (eight reports community on a real-time basis Force (12 times in total by June 2023) published by July 2024) · Continue additional reviews and monitoring to provide transparency and reassurance to the Outline of the reviews before commencing the discharge international community (i) Safety of ALPS treated water (responded by TEPCO and METI) · Even after the discharge of ALPS treated water, Review missions on two occasions and two reports the IAEA published reports based on its review (ii) Appropriateness of regulatory process (responded by the missions. (two reports published by July 2024) **Nuclear Regulation Authority)** ⇒ Review missions on two occasions and two reports (Source) Prepared based on "Fukushima Daiichi ALPS Treated Water Discharge (iii) Independent sampling and analysis of supporting evidence Timeline of IAEA Safety Reviews for ALPS-Treated Water Discharge" (IAEA) (https://www.iaea.org/interactive/timeline/105298) (responded by TEPCO and relevant ministries and agencies) and "IAEA Comprehensive Report: Confirmation by the International Organization of ⇒ Analyses on three occasions; Four reports (of which, two were the Safety of Discharge of ALPS Treated Water into the Sea" [METI] (https://www.meti.go.jp/earthquake/nuclear/hairo_osensui/shirou_alps/reports/02/)

The government of Japan has asked the IAEA for support to review Japan's plans and activities for the discharge of ALPS treated water so that the treated water can be discharged in a safe and highly-transparent manner in compliance with the IAEA international safety standards. Accepting this request of the government of Japan, the IAEA will conduct technical reviews as to whether ALPS treated water is discharged in compliance with the IAEA international safety standards over the coming several decades. In order to sufficiently secure key elements regarding safety, the reviews consist of the following three major items.

- Intensively evaluate the property of ALPS treated water and discharge plans, especially focused on safety
- 2. Check responses of the Nuclear Regulation Authority, which is responsible for nuclear safety regulations
- 3. Corroborate the data published by the government of Japan by independently conducting monitoring of radioactive materials in ALPS treated water and the environment

From February 2022 to June 2023, the IAEA conducted multiple review missions and published reports for the purpose of publicizing the progress. Based on the observations by the Task Force, TEPCO revised the Implementation Plan and reports on the assessment of radiological impacts on humans and the environment to further improve the content thereof.

In July 2023, the IAEA published its comprehensive report, which concludes that discharges of the ALPS treated water into the sea are "consistent with relevant international safety standards" and "would have a negligible radiological impact on people and the environment" (p.22 of Vol. 2, "IAEA Comprehensive Report on the Safety of 'ALPS Treated Water"). This report states as follows.

- The IAEA will maintain an onsite presence at Fukushima Daiichi NPS throughout its review and will provide real-time and near real-time monitoring data on discharges to the international community.
- Additional review and monitoring activities will be continued to provide additional transparency and reassurance to the international community. The report presents the IAEA's commitment to engaging with Japan on the discharge of ALPS treated water not only before, but also during, and after the treated water discharges occur, aiming to secure the safety of discharge over years.

In January 2024, the IAEA published a report on its first review mission to Japan after the start of ALPS treated water discharge. In the report, the IAEA concludes as follows.

- In its reviews and observations, the Task Force did not identify anything that is inconsistent with the requirements in the relevant international safety standards.
- A robust regulatory infrastructure is in place to provide operational safety oversight of the discharge of ALPS treated water, and the Task Force was able to witness first-hand the onsite presence of the NRA and their activities in this regard.
- 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.
- The Task Force reiterated the finding from the IAEA's Comprehensive Report that optimization of protection of the discharge of ALPS treated water needs to be considered moving forward as part of the overall decommissioning of the FDNPS site. However, the Task Force fully recognized that the discharges are in the early stages and that further time and operational experience are required before progress can be made on this issue.

The IAEA's reports are published on the following website:

IAEA Fukushima Daiichi ALPS Treated Water Discharge - Reports

https://www.iaea.org/topics/response/fukushima-daiichi-nuclear-accident/fukushima-daiichi-alps-treated-water-discharge/reports

 "The IAEA confirmed the safety of discharge of ALPS treated water into the sea" (July 2023) https://www.meti.go.jp/earthquake/nuclear/hairo_osensui/shirou_alps/reports/02/ (in Japanese)

• "The IAEA Published a Report on Its February Review Mission of Safety Aspects of Handling of ALPS Treated Water at Fukushima Daiichi Nuclear Power Station" (April 2022)

https://www.meti.go.jp/english/press/2022/0429_001.html

published after the discharge)