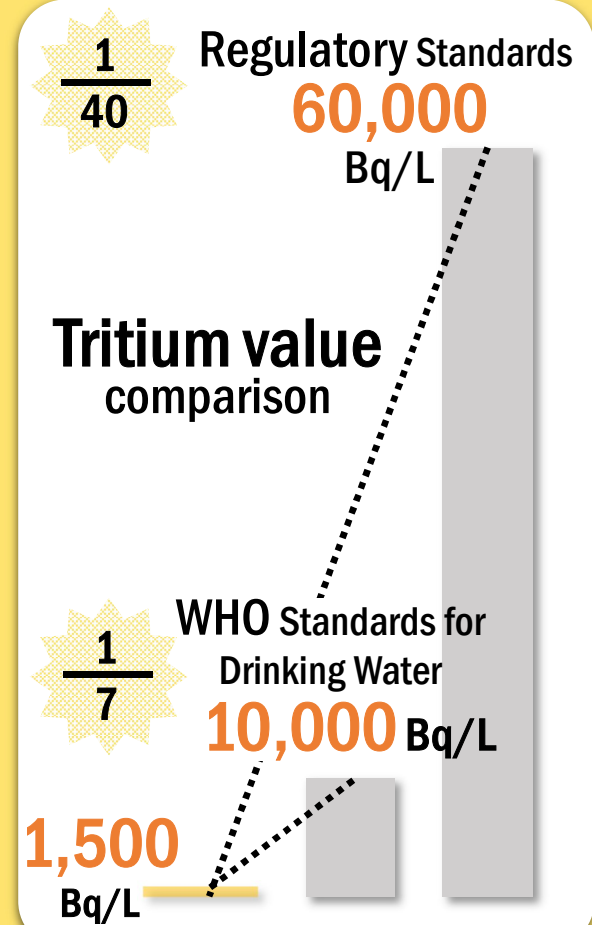
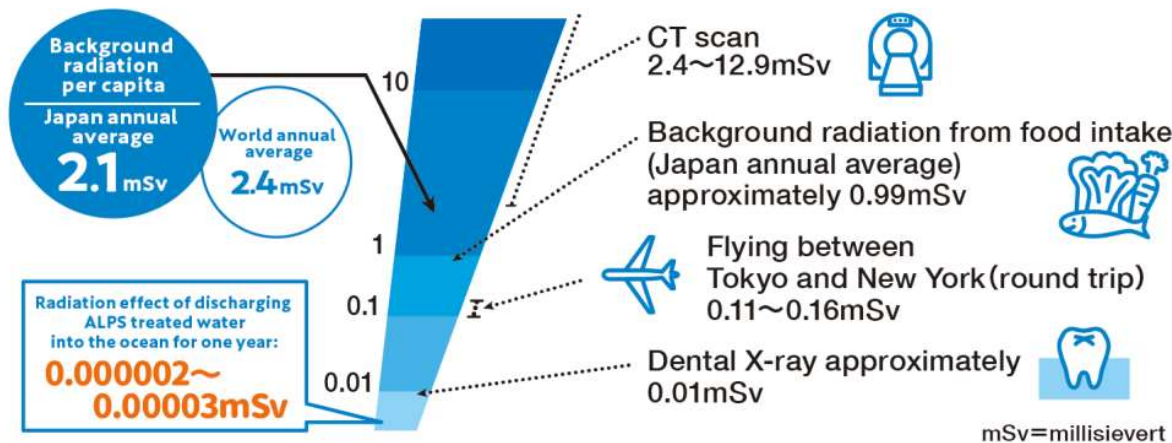


What is ALPS treated water?

- The number of storage tanks for contaminated water and ALPS treated water on the site has **exceeded 1,000**, and there is no room for further tank expansion.
- In the "**Basic Policy**" of April 2021, it was decided to **discharge water into the sea** in about two years after purifying radioactive materials other than tritium to below the regulatory standards through ALPS treatment (subject to necessary approval of the NRA).
- Before the discharge, (1) **purify** nuclides other than tritium by ALPS treatment, and (2) **reduce** the concentration of tritium to 1,500 Bq/L, which is **far below** the regulatory standards (60,000 Bq/L), through **dilution** (more than 100 times) with seawater (less than 1/100 of the regulatory standard for other than tritium).
- Monitoring of the status before and after discharge (assessment and review by the **IAEA** and third-party organizations in addition to TEPCO).



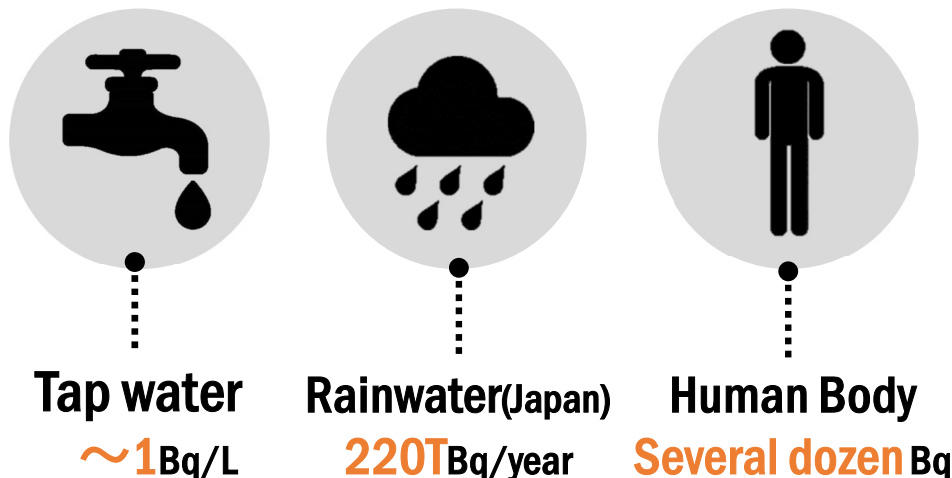
Impacts of ALPS treated water on the human body, etc.



Source: Radiological Impact Assessment Report Regarding the Discharge of ALPS Treated Water into the Sea (design stage • Revised edition) by TEPCO

- The results of the assessment of the impact of ALPS treated water on humans are appx. **1/70,000** to **1/1,000,000** of the impact from **natural radiation** (Japanese average: 2.1 mSv per year).
- The results of its on plants and animals (flatfish and brown seaweed) are appx. **1/1,000,000** to 1/3,000,000 of the reference value proposed by the International Commission on Radiological Protection (ICRP), and on crabs are appx. **1/10,000,000** to **1/30,000,000** of the reference value.

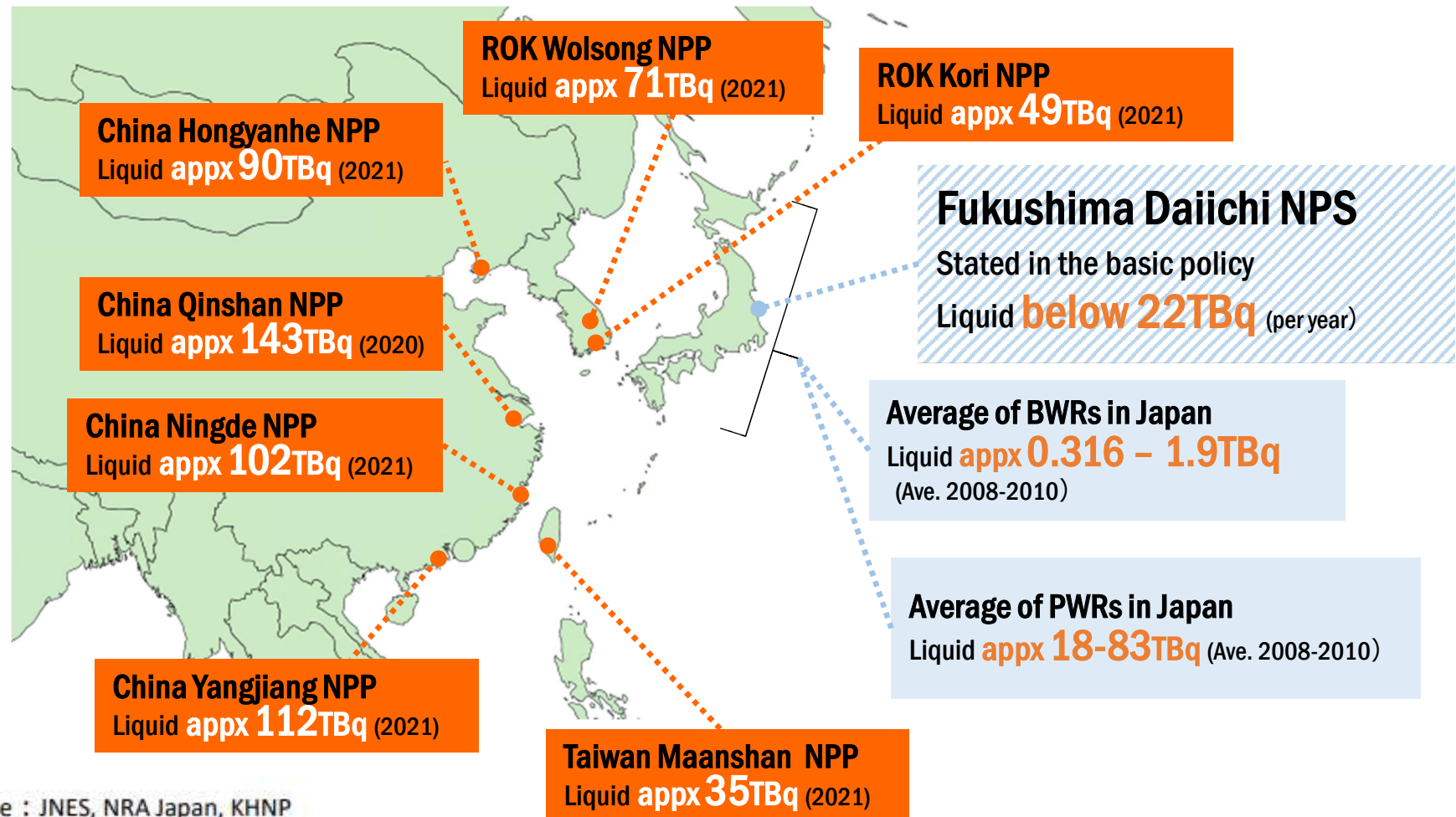
What is Tritium?



- Relatives to Hydrogen. Widely present in rainwater, seawater, tap water, human body and nature.
- Tritium is similar in nature to hydrogen, making it very difficult to remove tritium alone.
- It emits very weak radiation, but only to the extent that **a sheet of paper can prevent** it. Even if it enters the body, it is not accumulated and is **excreted with water**.
- The level of the total amount of tritium at the time of discharge is below 22 trillion Bq per year (the pre-accident control target), which is **lower** than the amount discharge from **many nuclear power plants** and other facilities in Japan and abroad.

Annual Tritium Discharged in Neighboring Countries and Regions

Tritium is discharged into the sea and rivers as liquid effluents and into the atmosphere through ventilation, etc. **at nuclear power plants and reprocessing facilities** in Japan and abroad, **in compliance with the laws and regulations** of each country and region.



Source : JNES, NRA Japan, KHNP website, China Nuclear Energy Association, Taiwan Power Company website

Accidental and Normal Reactors

- The presence of radioactive materials is **not a problem in itself**, but rather the level at which they do not impact the human body or the environment (i.e., below regulatory standards).
- Regulatory standards are determined by **the sum of the radiation impacts of all nuclides** contained in a reactor, regardless of whether it is an accidental reactor or a normal reactor. (Judge by the total value converted to the impact on humans, not by the type or number of nuclides.)

- ✓ **Re-purify** nuclides including those specific to the accident reactor.
- ✓ Confirm that the total radiation impact of nuclides other than tritium is **purified below the regulatory standard**.
- ✓ Further **diluted more than 100 times** and discharged.

Developing an Understanding of the International Community

Political Dialogue



February 7, Mr. KISHIDA, Prime Minister of Japan, held a meeting with the delegation of the Pacific Islands Forum (PIF).

Diplomatic Mission and Bilateral Briefings



May 12, a briefing session to the Government of ROK was held in a hybrid format (in Seoul and online).

Domestic and Foreign press Briefings

- Briefings to press in Tokyo after April 2021
- Briefings to press in the following region; Southeast Asia, Oceania, Central and South America etc
- Individual explanations and answers to written questions
- Conducting press tours to Fukushima

Reviews by IAEA



July 5, Mr. Rafael Mariano Grossi, Director General of the IAEA visited TEPCO's Fukushima Daiichi Nuclear Power Station

IAEA Comprehensive Report

2021.4 Basic Policy

The Japanese government announces a basic policy on the disposal of ALPS treated water based on an agreement between Japan and the IAEA.

2021.7 TOR

TOR on the Safety Review of ALPS treated water between Japan and IAEA was signed



IAEA Mission to Japan (Review)

The IAEA conducted a total of five missions (review) to Japan over a two-year period and published a total of six reports.

2023.7.4 Comprehensive Report

The IAEA Comprehensive Report, which summarizes a series of activities conducted by the IAEA and presents its conclusions, was presented to Prime Minister Kishida by IAEA Director General.



Foreword by the Executive Director
Executive Summary
Chapter 1: Introduction
Chapter 2 Assessment of Compliance with the Fundamental Safety Principles
Chapter 3 Assessment of Compliance with Safety Requirements
Chapter 4 Monitoring, Analysis and Corroboration
Chapter 5 Future Activities

Points in the Comprehensive Report

- ✓ IAEA has concluded that 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 IAEA has concluded that the discharge of ALPS treated water will have **a negligible radiological impact on people and the environment.**
- ✓ The IAEA is committed to **engaging with Japan before, during, and after** the treated discharge occur. Additional review and monitoring activities are envisaged that will continue and which will provide **additional transparency** and **reassurance to the international community.**