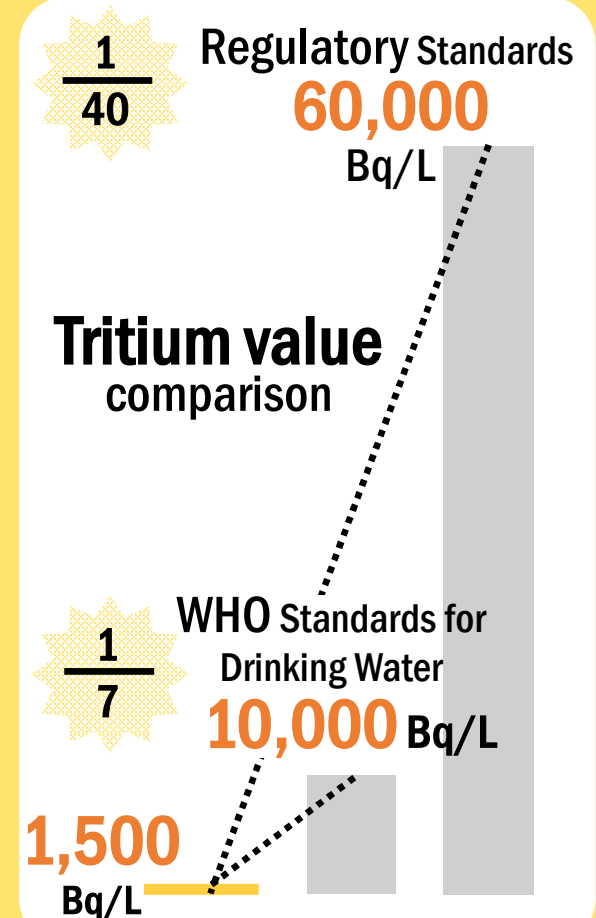
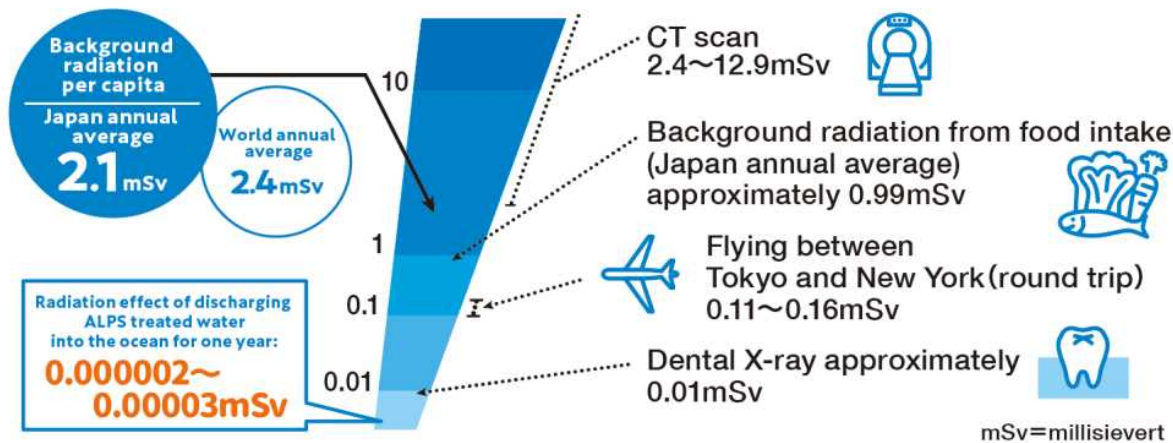


## What is ALPS treated water?

- 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).



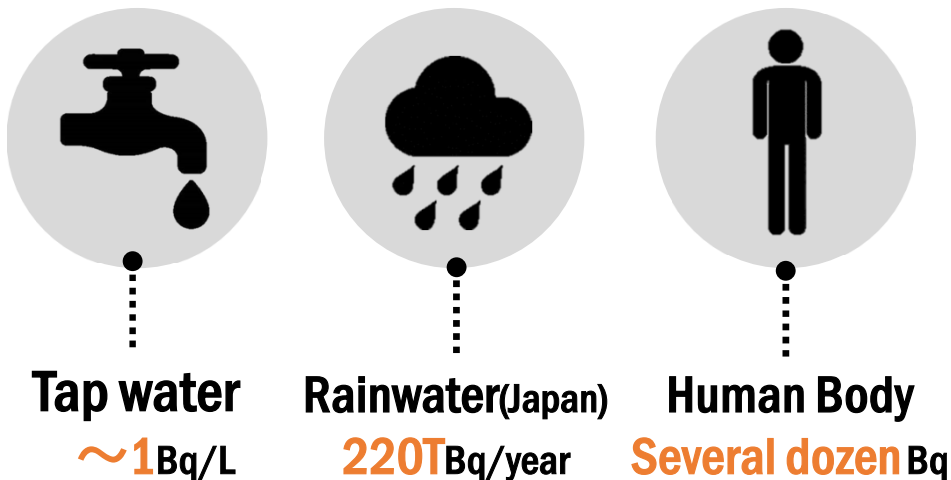
# Impacts of ALPS treated water on the human body, etc.



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.

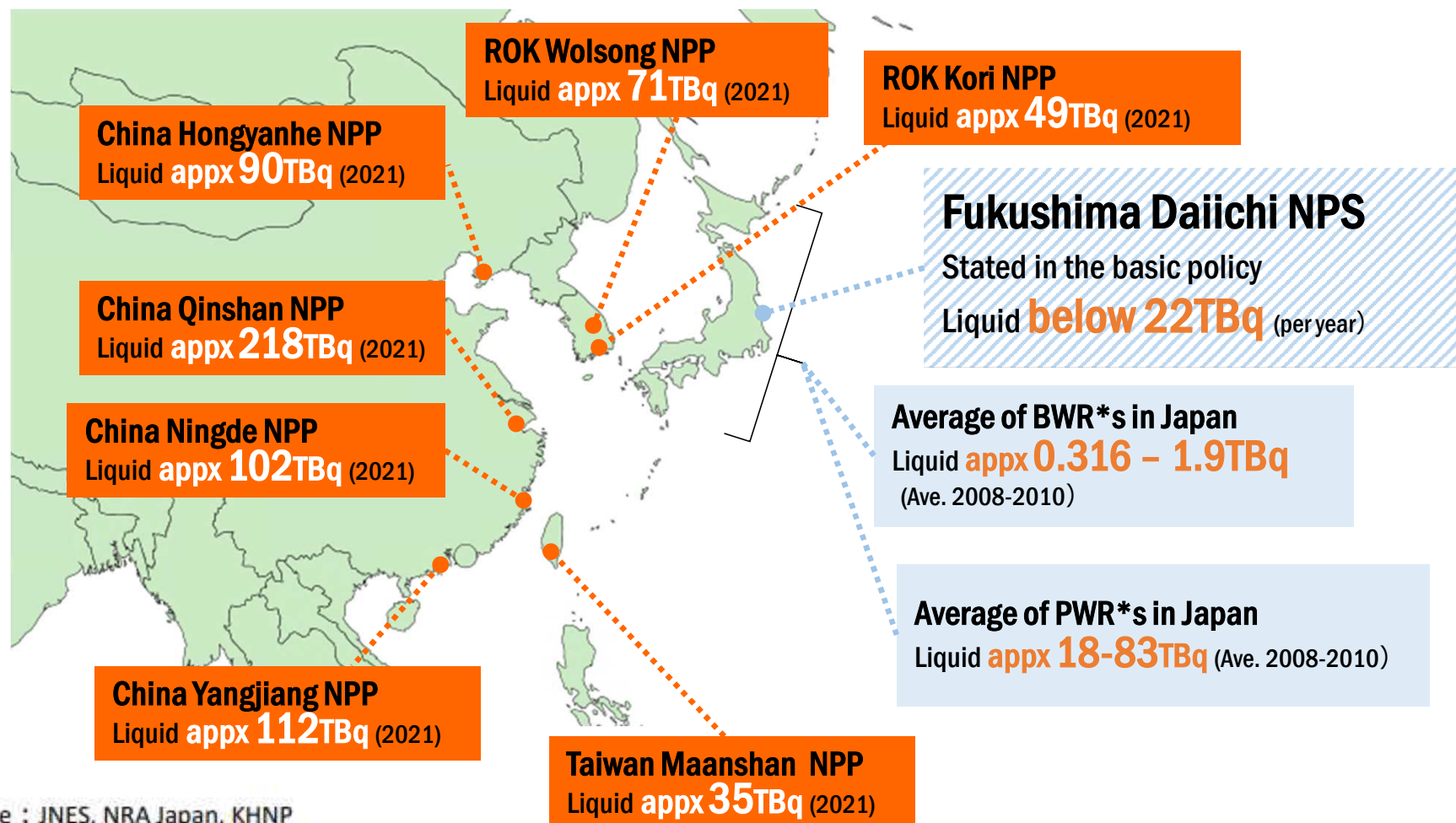
## What is Tritium?



- 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

\*BWR: Boiling Water Reactor  
PWR: Pressurized Water Reactor

# 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



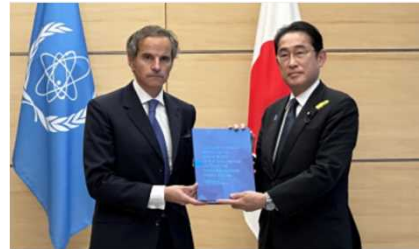
# IAEA Comprehensive Report

## 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.**