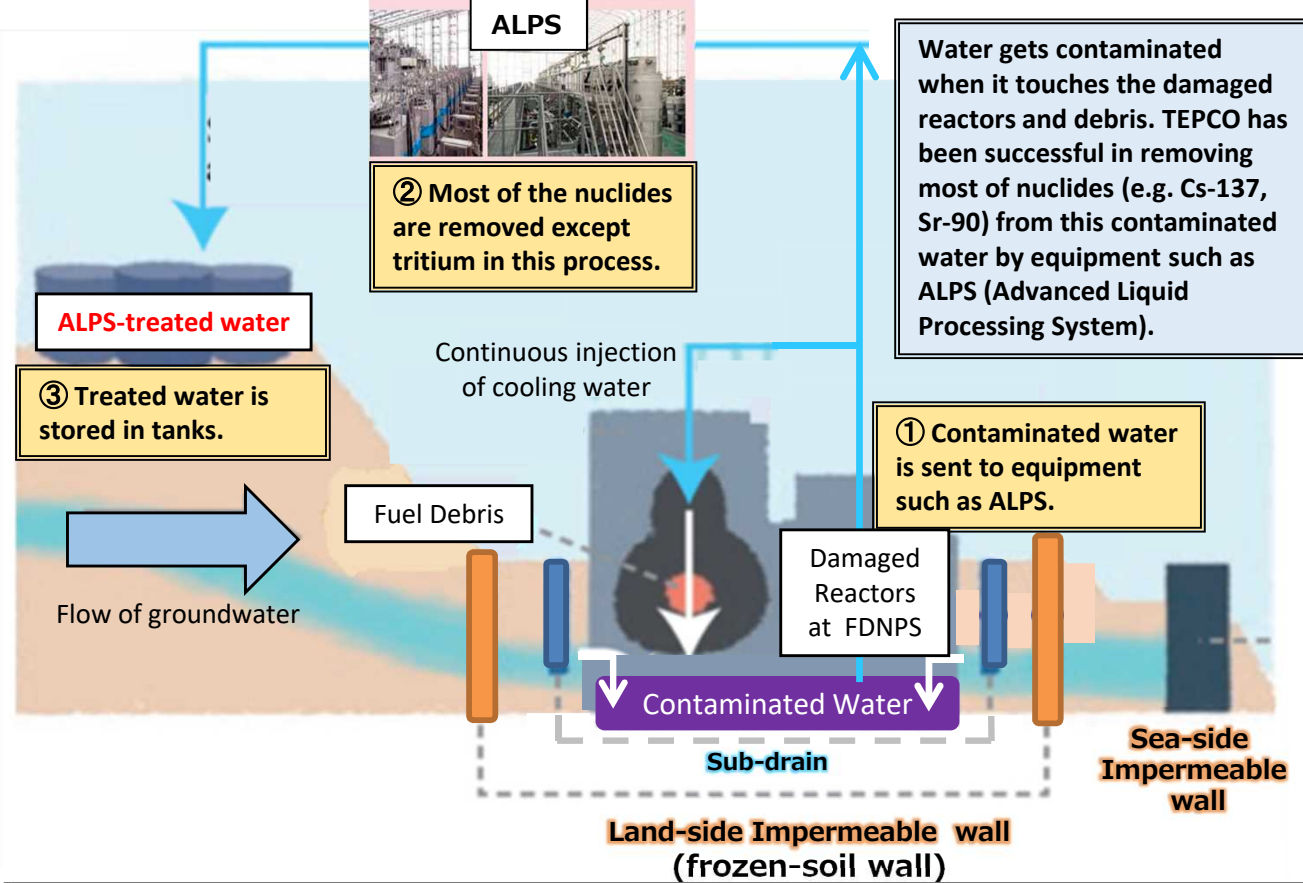


**1. Various measures have been taken for the management of contaminated water at FDNPS.**

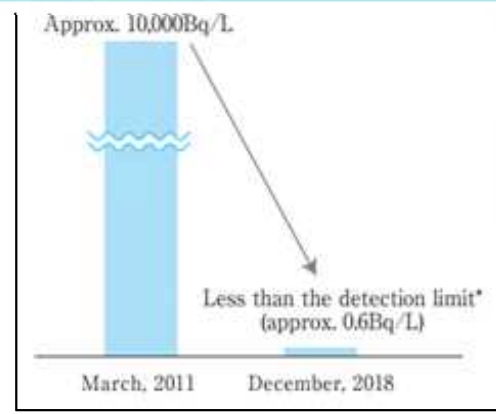
How the nuclides are removed from the "contaminated water"



**ALPS (Advanced Liquid Processing System)-treated water (≠contaminated water) is being continuously stored on site.**

**2. Drastic decrease of radioactive materials in the sea and the air near the FDNPS has been achieved.**

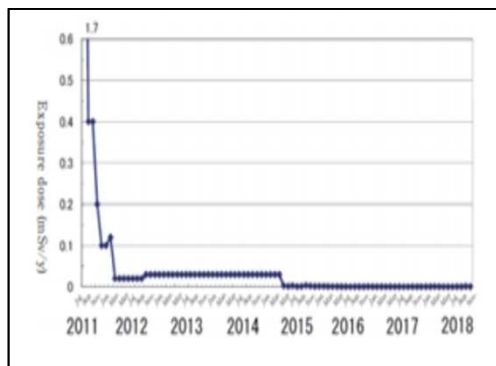
**Concentration of radioactive materials in the sea water around the plant**



\* Cesium137 near the south discharge channel

Concentration of radioactive materials in the sea around the plant is now **less than the detection limit**. The level is even below the drinking water standard.

**Estimated annual dose at the site boundary by radioactive materials (cesium)**



The amount of radioactive materials in the air is **so low that people can live as usual** even in the surrounding areas of the FDNPS.

**Key Questions:**

- 1) What are the IAEA's findings on FDNPS? → **See P.2**
- 2) What is tritium? How will ALPS-treated water be handled? → **See P.3**
- 3) How has the GOJ been providing information to the international community? → **See P.4**

# 1) What are the IAEA's findings on FDNPS?

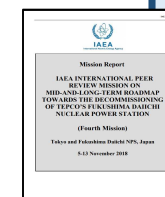
- The IAEA has been cooperating with Japan in various areas such as decommissioning and sea water monitoring.
- **The following key findings of IAEA reports remain uncontested** by its Member States.
- Japan will continue to support the IAEA to conduct its factual and impartial assessment.

## Decommissioning:

- "The IAEA Review Team considers that significant progress has already been accomplished to move Fukushima Daiichi from an emergency situation to a stabilized situation."

*"IAEA International Peer Review Mission on Mid-And-Long-Term Roadmap Towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station" (IAEA, November 2018)*

Available at: <https://www.iaea.org/sites/default/files/19/01/missionreport-310119.pdf>



## Sea water monitoring:

- "The IAEA can report that Japan's sample collection procedures follow the appropriate methodological standards required to obtain representative samples. The results obtained in ILCs demonstrate a high level of accuracy and competence on the part of the Japanese laboratories involved in the analyses of radionuclides in marine samples for the Sea Area Monitoring programme."

*"Interlaboratory Comparisons 2014–2016: Determination of Radionuclides in Sea Water, Sediment and Fish" (IAEA, April 2019)*

Available at: <https://www-pub.iaea.org/MTCDD/Publications/PDF/AQ-59web.pdf>



- "The IAEA considers that the extensive data quality assurance programme contributes to building confidence of the stakeholders in the accuracy and quality of the sea area monitoring data."

*"Events and Highlights on the Progress Related to Recovery Operations at Fukushima Daiichi Nuclear Power Station" (IAEA, July 2019)*

Available at: <https://www.iaea.org/sites/default/files/19/09/events-and-highlights-july-2019.pdf>



- "The monitoring results indicated no rise in radionuclide concentrations and remain within the WHO guidelines for drinking water. Based on these reports and the information that has been made available, the IAEA considers the public is safe and sees no reason why this should not continue to be the case in the future."

*"Events and highlights on the progress related to recovery operations at Fukushima Daiichi NPS" (IAEA, December 2013)*

Available at: <https://www.iaea.org/sites/default/files/recoveryoperations201213.pdf>



## 2) What is tritium? How will ALPS-treated water be handled?

### What is tritium?

- Tritium is a relative of hydrogen that emits weak radiation.
- It **exists naturally and is found in the water** such as water vapor in the atmosphere, rain, sea water, and tap-water. Its **impact on health is very low**, around 1/700 of that of Cs-137.

While no decision has been made, various options are considered in the Subcommittee on handling ALPS-treated water\*: (1) geosphere injection, (2) discharge to the sea, (3) vapor release, (4) hydrogen release, (5) underground burial, (6) long-term storage

\*The water which is referred to in the Subcommittee for its consideration is not “contaminated water” but the ALPS-treated water. The Subcommittee continues to discuss how to handle the ALPS treated water, on the condition that **radionuclides other than tritium (Cs-137, Sr-90, etc) are sufficiently removed by further retreating the ALPS-treated water.**

Some argue that tritium in ALPS-treated water should be handled differently from tritium generated from usual operation of NPPs because the former is generated as the result of the accident.



**No scientific reason can be found** to differentiate the handling of the two.



The map shows countries with operating nuclear reactors.

Besides, it should be noted that **operators of nuclear reactors globally discharge tritium into the sea and the atmosphere.** In each country, there are regulations to manage liquid radioactive waste keeping public radiation dose less than 1mSv/year, based on ICRP (International Commission on Radiological Protection) publication.

### 3) How has the GOJ been providing information to the International Community?

The Government of Japan (GOJ) has repeatedly explained the situation of the FDNPS to international community on various occasions:

- ✓ **Briefing sessions have been held 103 times** for all the Diplomatic Missions in Tokyo (DMT).
  - The most recent DMT briefing (Sep. 4<sup>th</sup>) was attended by 22 countries/region, and **there was no protest/expression of concern from the participants over Japan's handling of the FDNPS.**
- ✓ **Monthly Report** on the discharge record and the seawater monitoring results is sent to all the DMT
- ✓ **Technical briefings** on the occasions of international conventions such as IAEA, OECD/NEA etc.
- ✓ **Reports** on the decommissioning progress and the surrounding environment were sent to the IAEA.
- ✓ Related information **is always available on the METI website**  
(<https://www.meti.go.jp/english/earthquake/nuclear/decommissioning/index.html>)



The 103<sup>rd</sup> briefing for the DMT  
(Sep. 4<sup>th</sup> 2019)

## CONCLUSIONS

- The situation of **the FDNPS has shifted from emergency situation to stabilized situation.**
- No IAEA Member States challenged the key findings of the IAEA Reports on FDNPS.

- **Japan has closely cooperated with the IAEA and Japan continues to count on the IAEA's assessments.**
- **The GOJ will continue to explain the information regarding the situation of the FDNPS to the international community in a courteous and transparent manner.**
- **The GOJ stands ready to explain our stances in response to any unfounded claim.**



Resumed local fishery  
(above) and agriculture  
(below) near the FDNPS

