

【Digest version】

TEPCO Holdings' Action in Response to the Government's Policy on the Handling of ALPS Treated Water

The logo for TEPCO, consisting of the letters "TEPCO" in a bold, red, sans-serif font. The letters are slightly italicized and have a modern, clean appearance. A thick red horizontal line is positioned below the logo.

April 16, 2021

Tokyo Electric Power Company Holdings, Inc.

※Correction made on April 19, 2021 (P8)

We deeply apologize for the immense burden and deep concern the TEPCO Holdings Fukushima Daiichi Nuclear Power Station accident is causing the local residents and society at large. We would also like to offer our apologies for the string of recent incidents that have caused concern about TEPCO's nuclear operations and distrust in us as a company.

Recently, the Government of Japan published the “Basic Policy on handling of ALPS treated water at the Tokyo Electric Power Company Holdings’ Fukushima Daiichi Nuclear Power Station” (hereinafter government policy) at the 5th Inter-Ministerial Council for Contaminated Water, Treated Water and Decommissioning Issues held on April 13.

We are taking seriously that this government policy on the handling of ALPS treated water was put forth based on opinions expressed by parties concerned at various opportunities in addition to the discussions held by the Subcommittee on Handling of ALPS Treated Water and the Tritiated Water Task Force (hereinafter ALPS Subcommittee).

TEPCO Holdings will work to ensure our response is strictly based on this government policy.

1. TEPCO Holdings' Approach to the Discharge of ALPS Treated Water



Basic position

- In releasing ALPS treated water*¹ into the sea, we will ensure that the discharged water is safe by conforming to safety standards based on laws, and relevant international laws and practices, while conducting radiation impacts assessments on people and the environment*². Thus we will secure the safety of the public, the surrounding environment, and of agricultural, forestry and fishery products.

Strengthening and enhancing the scope of monitoring

- In releasing ALPS treated water into the sea, we will enhance and strengthen our sea area monitoring efforts to minimize any potential adverse impacts on reputation.
- We will secure objectivity and transparency in monitoring, requesting cooperation from experts and the people in the agricultural, forestry, fishery industry.

Preventing leaks from tanks

- On-site tanks that store ALPS treated water will be continuously monitored for leaks and will be maintained and managed appropriately in preparation for natural disasters.

Information dissemination and minimizing rumors

- To mitigate concerns and foster understanding domestically and abroad, we will continuously disseminate accurate information on the impacts of the ALPS treated water on the environment and the results of radiological impact assessment for public and environment in a transparent manner, which include the concentration of radioactive materials in the ALPS treated water and assessment results before it is discharged, progress in discharge and the results of sea area monitoring.
- To minimize any potential adverse impacts on reputation, we will do our utmost in supporting industries that may be subject to potential adverse impacts on reputation at each stage from production, processing, distribution, to consumption (develop new markets, etc.).

Appropriate compensation

- If reputational damage is incurred as a result of the discharge of ALPS treated water despite these efforts, we will provide swift and appropriate compensation.

• *1 Water that has been purified and treated by devices such as ALPS until radioactive materials other than tritium will surely satisfy the regulatory standards for safety.
• *2 Includes any latent effects the ALPS treated water may have on the marine environment

2. Design and Operation of Necessary Facilities

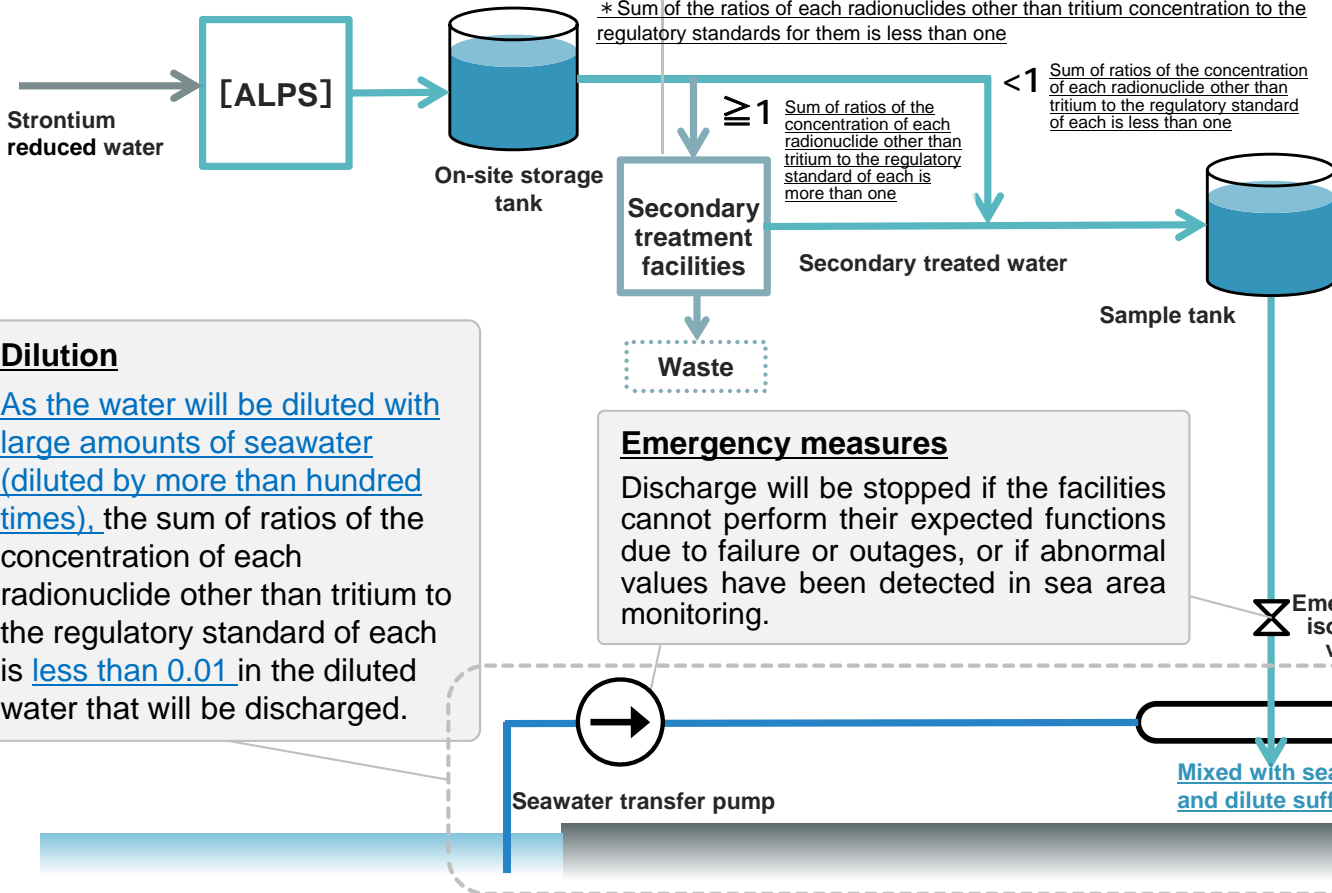
Listening closely to the opinions of parties concerned, we will design and operate facilities necessary for discharge of ALPS treated water into the sea by creating a plan to steadily implement the government policy while preparing to obtain necessary approvals from the NRA.

Conceptual diagram of facilities for releasing ALPS treated water into the sea

Secondary treatment

Secondary treatment will be conducted as necessary to ensure that the level of radioactive materials excluding tritium is lower* than the regulatory standard value for safety

* Sum of the ratios of each radionuclides other than tritium concentration to the regulatory standards for them is less than one



Site use plan

Necessary measures to discharge ALPS treated water consistently and to build facilities necessary in decommissioning will be closely studied given the government policy.

Analysis of ALPS treated water

TEPCO will publish the concentration of tritium, 62 nuclides (nuclides subject to removal by ALPS), and carbon-14 in ALPS treated water and the results of assessments as well as the [3rd parties' measurement and assessment results.](#)

Dilution

[As the water will be diluted with large amounts of seawater \(diluted by more than hundred times\),](#) the sum of ratios of the concentration of each radionuclide other than tritium to the regulatory standard of each is [less than 0.01](#) in the diluted water that will be discharged.

Emergency measures

Discharge will be stopped if the facilities cannot perform their expected functions due to failure or outages, or if abnormal values have been detected in sea area monitoring.

Concentration of tritium inside discharged water

The tritium concentration of the discharged water will be [less than 1500 Bq/L.](#) This will be assessed based on the [tritium concentration in the ALPS treated water before discharge and the amount of water it was diluted by.](#)

Amount discharged

In the near term, discharge amounts will be within the threshold of [22 trillion Bq/year](#) which is the target discharge management value for Fukushima Daiichi before the accident. This amount will be reviewed as needed based on progress made in decommissioning.

3. Environmental Monitoring

In addition to existing sea area monitoring of Cesium 137, we will be focusing on measuring and assessing tritium.

Enhanced sea area monitoring will be started around a year before discharge of ALPS treated water is scheduled to start.

- In addition to conducting sea area monitoring according to the monitoring reinforcement plan, we will also have third parties take measurements and publish them.
- We will ask that the agricultural, forestry, and fishery producers and local government officials participate in and observe our sea area monitoring efforts.
- We will respond appropriately to the advice of the new meeting body to be established by the government comprised of experts on the marine environment.

Sea water

- ✓ We will increase the number of locations at which samples are collected and the frequency of analysis in monitoring tritium concentrations.

Fishes and Seaweeds

- ✓ We will analyze for tritium in addition to cesium which is currently being analyzed.
- ✓ We will increase the number of locations at which samples are collected and the frequency of analysis.

- We will conduct fish feeding trials to provide empirical information about radioactivity in ALPS treated water as part of environmental monitoring.

4. Review on the safety by the IAEA

We plan to receive reviews by IAEA experts before and after the start of the discharge, and reflect appropriately IAEA's guidance and advisory points to further improve and strengthen our measures.

- Considering not just domestic legislations but also relevant international laws and practices, we plan to receive reviews by IAEA experts which will cover the safety of the design of facilities and their operation methods; the plan and implementation status of the sea area monitoring; the capability of the radiation measurement of TEPCO; the assessment of radiological impact for the public and the environment, and so on.
- TEPCO Holdings will study the specific design of facilities for transfer and dilution process and its operation, and prepare for the assessment of radiological impact for the public and the environment, to provide information and explanations to the IAEA

IAEA review mission
observing the field
(February 2015)



IAEA review mission
exchanging opinions with
the station management
(November 2018)



IAEA review mission observing the
field
(November 2018)

5. Response to the Effects of Rumors and Reputational Damage

We will thoroughly implement initiatives to foster understanding among society, provide necessary support to industries that may be affected by rumors in the production, processing, distribution, and consumption stages and counteract any reputational damage.

Actively roll out efforts to communicate to convey information accurately

- Disseminate information in an accurate and timely manner domestically and abroad
- Develop and actively use PR tools such as videos and pamphlets
- Taking advantage of various opportunities such as tours and visits of Fukushima Daiichi and events, increase the visiting population to the Hamadori area and conduct two-way communication.
- Receive visitors from other countries

Implement activities to promote the distribution of agricultural, forestry, and fisheries product of Fukushima

- Continue distribution promotion activities of agricultural, forestry, and fishery products of Fukushima in the Tokyo Metropolitan area and within Fukushima. Strengthen and enhance efforts to cultivate markets for Joban-mono (products from the Joban area) to support the recovery of fisheries and increase lading.
- Support fishery-related brokers and processors in the Hamadori area
- Enhance and expand measures through dialogue and discussion with Fukushima Prefecture, other neighboring prefectures, and concerned parties

Foster understanding and communicate domestically and abroad

Minimize any potential adverse impacts on reputation

Measures implemented in production/processing/distribution/consumption

Response if there is any reputational damage

Provide swift and appropriate compensation

- Carefully confirm the actual damage and loss
- Explain concrete compensation standards
- Set up a dedicated inquiry desk/respond as appropriate

We will continually and actively disseminate accurate information to further foster understanding domestically and abroad.

Further enhance the Treated Water Portal Site Develop PR tools for explaining tritium, treated water, and the discharge method

- We will communicate the discharge method, inspection system, measurements and monitoring results accurately in a timely and easy-to-understand manner. We will also continuously improve our communication based on feedback.



Treated Water Portal Site

Disseminate information through media, and through websites and social media

- We will continue to encourage media and experts to cover and visit Fukushima Daiichi so that accurate information on ALPS treated water based on scientific evidence is disseminated in various forms. We will also disseminate information in a timely and appropriate manner using websites and social media.

Two-way communication at every opportunity

- We will ensure two-way communication where we sincerely engage with the stakeholders' concerns and opinions gathered through tours, events, visits, and other opportunities. We will apply the insights gained in running the decommissioning business.

Disseminate accurate information overseas

- We will disseminate information in an accurate and timely manner through the website and social media.
- We will aim to foster the international society's understanding of our efforts by receiving visits from abroad.



A station visit

If reputational damage is incurred as a result of ALPS treated water discharge despite measures to minimize any potential adverse impacts on reputation※, we will swiftly and appropriately compensate for the damages.

Basic approach

- We will compensate for damages resulting from the discharge of ALPS treated water without putting a restriction beforehand on the compensation period, area or industry that can be compensated.
- When confirming the extent of damage, we will carefully listen to circumstances of each individual case and will respond appropriately. We will respond flexibly to minimize the impacts on the persons to which the damage was sustained by infer the amount of damage using rational means.
- We will carefully explain specific standards for compensation in response to the concerns of stakeholders and endeavor to reach an understanding. We will set up a dedicated inquiry desk to pick up on concerns. We will listen and engage with each concern, considering the situation of each parties concerned.

※Correction made on April 19, 2021

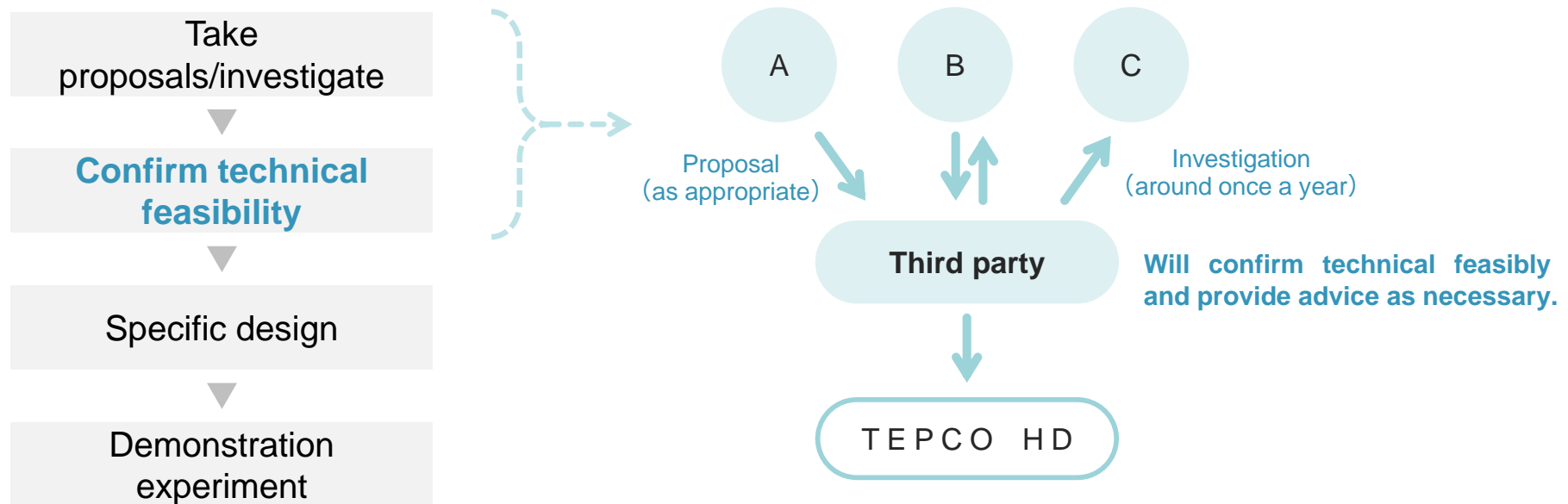
Error : rumors

Correction : any potential adverse impacts on reputation

6. Investigation Regarding Tritium Separation Technology

We will continue to keep a close eye on new technological developments in tritium separation technology.

- We have not been able to confirm the existence of tritium separation technology that can be used on ALPS treated water at Fukushima Daiichi; the ALPS Subcommittee and the IAEA are of the same view.
- We will consider a new scheme involving a third party that will widely investigate and receive proposals regarding the feasibility of tritium separation technology, and will actively verify and adopt those technologies if they are found to be feasible.



Conclusion

TEPCO Holdings is committed to steadily completing the decommissioning of Fukushima Daiichi Nuclear Power Station putting safety above all else. We will provide a concrete plan based on the Mid-and-Long Term Roadmap^{※1} and the government policy on the handling of ALPS treated water under the great principle of balancing recovery and decommissioning. Furthermore, we will work to communicate swiftly, accurately, and objectively to deepen the siting region and society's understanding of our handling of the ALPS treated water and other decommissioning efforts without causing concern, and do our utmost to respond to adverse impacts on reputation.

We will continuously disseminate information at each stage from preparing to discharge ALPS treated water into the sea, start of discharge, to after discharge, and will engage in dialogue with parties concerned.

In addition to striving to recover trust in our business endeavors, as the party responsible for the Fukushima Daiichi Nuclear Power Station Accident, TEPCO will move steadily forward with the decommissioning of the Fukushima Daiichi Nuclear Power Station, contaminated water and treated water countermeasures, while prioritizing safety.

※1 "TEPCO Holdings Mid-and-Long-Term Roadmap towards Decommissioning of the Fukushima Daiichi Nuclear Power Station"

<Reference> Plan going forward

