

Fact Sheet

Overview of Approach and Concrete Actions

February 2014

Tackling the issues of contaminated water at the Fukushima Daiichi Nuclear Power Station and its decommissioning is an urgent priority for the Government of Japan. The Government has assumed a proactive role in resolving the issue, providing financial support (JPY47.9 billion - approximately USD498.5 million - by the fiscal 2013 supplemental budget) and ensuring that accurate information is disseminated to both the public and the international community in a timely and effective manner. Japan has adopted the highest level of standards for food and water quality, in line with international guidelines, and continues to implement stringent monitoring and distribution management to ensure the safety of its food and water.

IAEA's Assessment:

On December 4, an IAEA expert team completed a review of Japan's progress towards decommissioning. The team praised Japan for adopting a more proactive approach. The final review mission report was released on February 13. In addition, on December 20, the IAEA confirmed that a comprehensive Sea Area Monitoring Plan had been established, noting that radionuclide concentrations remain within the WHO guidelines for drinking water and that the public is safe. The IAEA assessment also addressed monitoring of food products, adding that the joint FAO/IAEA Division assessed that measures taken to monitor and rapidly respond to any issues regarding radionuclide contamination in the food system are appropriate and that the public food supply is safe.

The Facts:

- On June 19, 2013, TEPCO announced that contaminated groundwater had been discovered at the Fukushima Daiichi NPS in the area between the turbine buildings and the sea port. Analysis indicates that the main source of the contamination is water in cable trenches that connect with circulation pumps near the shore, which became contaminated in March 2011.
- On Aug. 19, TEPCO announced that contaminated water also leaked from an above ground tank.
- Increased radioactivity has been observed within the port. However, this increase has been observed only within the port, in an area smaller than 0.3 km² and no significant increase in radiation levels was observed outside the port or in the open sea. The radionuclide concentrations remain within the WHO guidelines for drinking water.
- On Sep. 3, the Nuclear Emergency Response Headquarters (NERH), headed by Prime Minister Abe, decided the "Basic Policy" for the Contaminated Water Issue.
- On Nov. 18, transfer of fuel rods from the NPS No. 4 unit spent fuel pool started.
- The International Research Institute for Nuclear Decommissioning (IRID) conducted a request for information (RFI) for contaminated water issue and innovative approaches to fuel debris retrieval.
- NERH decided on December 20 to implement "preventive and multi-layered" measures in addition to countermeasures described in the "Basic Policy".

The Response:

Three principles for countermeasures against contaminated water in the "Basic Policy":

Remove sources of
contamination

Isolate water from
contamination

Prevent leakage of
contaminated water

Other approaches described in "Basic Policy":

- Establish a team to **gather knowledge and expertise** on a global basis.
- Adopt a preventive approach through **identification of further potential risks**.
- Maintain an **on-site-focused stance**, to ensure early detection of any issues and enable countermeasures to be monitored and revised as necessary.
- **Reinforce communications efforts** to ensure timely dissemination of accurate information on the current status in multiple languages for the international community.

Specific Multi-Layered Countermeasures include:

Remove sources

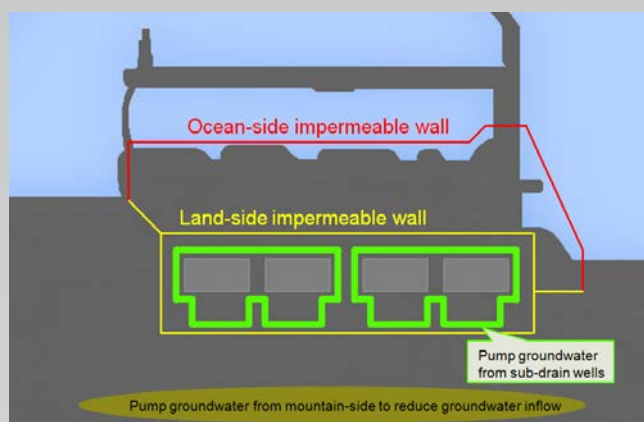
- Remove contaminated water from trenches
- Treat contaminated water with multi-nuclide removal equipment (ALPS)
- Clean up sea water in the harbor

Isolate water

- Install land-side frozen-earth impermeable walls to isolate groundwater flow from the contaminated area
- Install impermeable walls on the ocean-side of the plant to prevent leakage into the port and sea
- Pump contaminated water from the affected trenches, and isolate these areas from further water flow
- Pump groundwater from the mountain-side area of the plant, to reduce the amount of ground water inflow to the area
- Install gutters at top of tanks

Prevent leakage

- Treat the soil to prevent contaminated groundwater leaking to the sea by injecting sodium silicate, also known as liquid glass
- Install sea-side impermeable walls
- Accelerate installation of welded-joint tanks



Implementation Schedule:

