

# Water Leaks May Become New Japan Nuclear Disaster

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TOKYO (AP) — Japan's nuclear watchdog said a leak of highly radioactive water at the crippled Fukushima nuclear power plant could be the beginning of a new disaster — a series of leaks of contaminated water from storage tanks.



In this Tuesday, Aug. 20, 2013 aerial photo, workers stand on storage tanks at the Fukushima Dai-ichi nuclear plant at Okuma in Fukushima prefecture, northern Japan. The Japanese nuclear watchdog proposed Wednesday to define a fresh leakage of highly radioactive water from one of the hundreds of storage tanks at Japan's crippled atomic power plant this week, its worst leak yet from such a vessel. The operator of the Fukushima Dai-ichi plant said Tuesday said about 300 tons (300,000 liters, 80,000 gallons) of contaminated water have leaked from a steel storage tank at the wrecked Fukushima Dai-ichi plant. TEPCO hasn't figured out how or where the water leaked, but suspects it did so through a seam on the tank or a valve connected to a gutter around the tank. (AP Photo/Kyodo News)

The plant operator has built hundreds of steel tanks to store massive amounts of radioactive water coming from three melted reactors, as well as underground water running into reactor and turbine basements.

Tokyo Electric Power Co. says about 300 tons (300,000 liters, 80,000 gallons) of contaminated water leaked from one of the tanks, possibly through a seam. The leak is the fifth, and the worst, since last year involving tanks of the same design at the wrecked Fukushima Dai-ichi plant, raising concerns that contaminated water could begin leaking from storage tanks one after another.

"That's what we fear the most. We must remain alert. We should assume that what has happened once could happen again, and prepare for more," Nuclear Regulation Authority Chairman Shunichi Tanaka told a news conference. "We are in a situation where there is no time to waste."

The watchdog also proposed at a weekly meeting Wednesday to raise the rating of the seriousness of the leak to level 3, a "serious incident," from level 1, "an anomaly," on an International Nuclear and Radiological event scale from 0 to 7.

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The watchdog urged TEPCO to step up monitoring for leaks and take precautionary measures.

During the meeting, officials also revealed that plant workers apparently have overlooked several signs of leaks, suggesting that their twice-daily patrols were largely just a walk. They have not monitored water levels inside tanks, obviously missed a puddle forming at the bottom of the tank earlier, and kept open a valve on an anti-leakage barrier around the tanks.

TEPCO said the leaked water is believed to have mostly seeped into the ground after escaping from the barrier around the tank. It initially said the leak did not pose an immediate threat to the sea because of its distance — about 500 meters (1,650 feet) — from the coastline.

But TEPCO reversed that view late Wednesday and acknowledged a possible leak to the sea after detecting high radioactivity inside a gutter extending to the ocean.

The company also said the tank may have been leaking slowly for weeks through a possible flaw in its bottom. That could create extensive soil contamination and a blow to plans to release untainted underground water into the sea as part of efforts to reduce the amount of radioactive water.

The leaks have shaken confidence in the reliability of hundreds of tanks that are crucial for storing water that has been pumped into the broken reactors to keep melted radioactive fuel cool.

The plant suffered multiple meltdowns following a massive earthquake and tsunami in March 2011 — a level 7 "major accident" and the worst since Chernobyl in 1986.

About 350 of some 1,000 steel tanks built across the plant complex containing nearly 300,000 tons (300 million liters, 80 million gallons) of partially treated contaminated water are less-durable ones with rubber seams.

TEPCO says the tanks that have leaked use rubber seams that were intended to last about five years. TEPCO spokesman Masayuki Ono said it plans to build additional tanks with welded seams that are more watertight, but will still have to rely on ones with rubber seams.

Figuring out what to do with the radioactive water is among the most pressing issues affecting the cleanup process, which is expected to take decades.

"The growing contaminated water has been one of our biggest concerns since the March 11 accident," said Zengo Aizawa, TEPCO's executive vice president. "The contaminated water remains a problem that could lead to a crisis."

The leaked water's radiation level, measured about 50 centimeters (2 feet) above the puddle, was about 100 millisieverts per hour — the maximum cumulative exposure allowed for plant workers over five years, Ono said.

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Contaminated water that TEPCO has been unable to contain continues to enter the Pacific Ocean at a rate of hundreds of tons per day. Much of that is ground water that has mixed with untreated radioactive water at the plant.

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