

# A robot's attempt to get a sample of the melted fuel at Japan's damaged nuclear reactor is suspended

August 22 2024, by Mari Yamaguchi

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This photo provided by the Tokyo Electric Power Company Holdings shows what they call a "Telesco-style" extendable pipe robot on July 10, 2024. Credit: TEPCO via AP

An attempt to use an extendable robot to remove a fragment of melted fuel from a wrecked reactor at Japan's tsunami-hit Fukushima Daiichi nuclear power plant was suspended Thursday due to a technical issue.

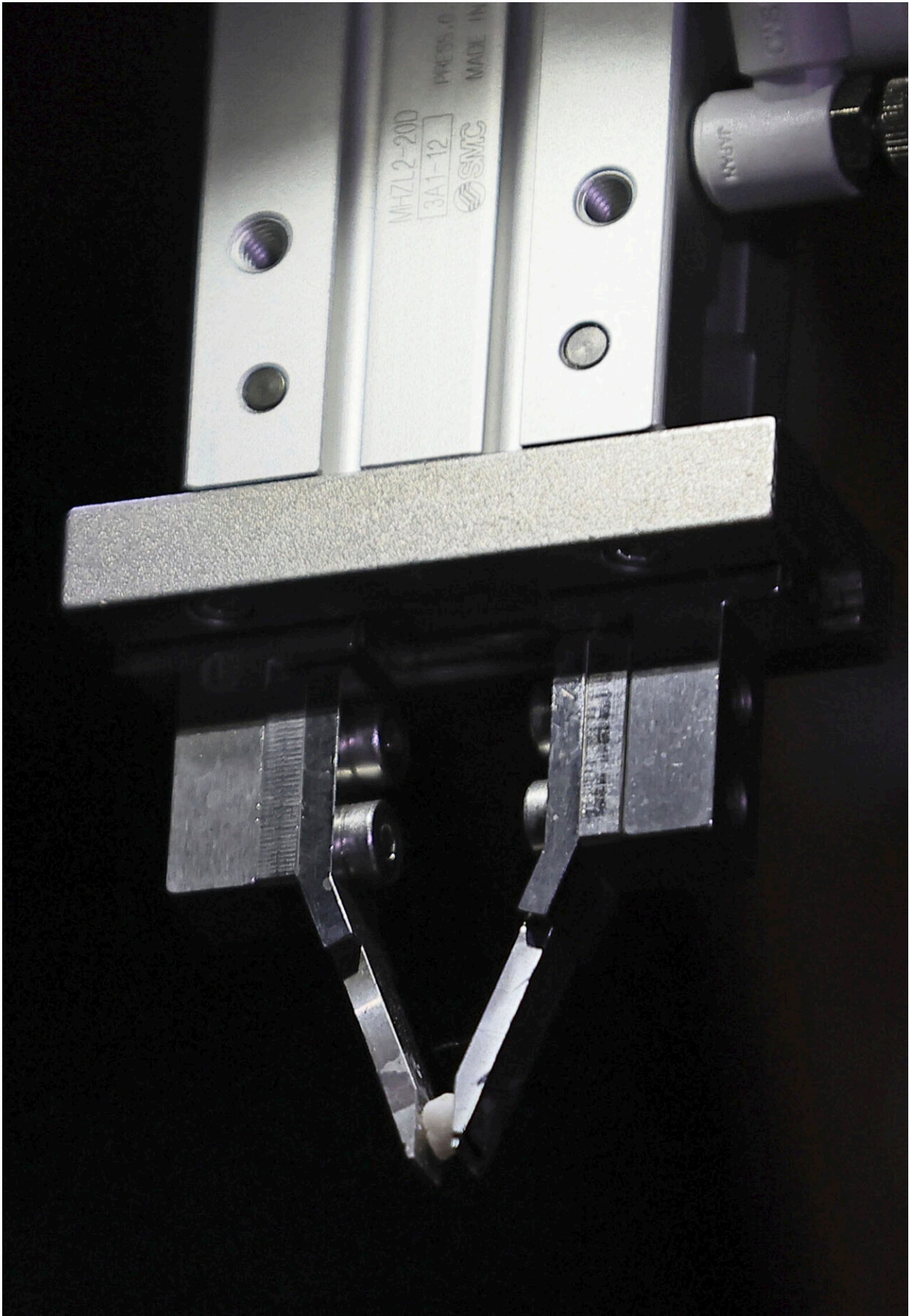
The collection of a tiny sample of the debris inside the Unit 2 reactor's primary containment vessel would start the fuel debris removal phase, the most challenging part of the decades-long decommissioning of the plant where three reactors were destroyed in the March 11, 2011, magnitude 9.0 earthquake and tsunami disaster.

The work was stopped when workers noticed that five 1.5-meter (5-foot) pipes used to maneuver [the robot](#) were placed in the wrong order and could not be corrected within the time limit for their radiation exposure, the plant operator Tokyo Electric Power Company Holdings said.

The pipes were to be used to push the robot inside and pull it back out when it finished. Once inside the vessel, the robot is operated remotely from a safer location.

The robot can extend up to about 22 meters (72 feet) to reach its target area to collect a fragment from the surface of the melted fuel mound using a device equipped with tongs that hang from the tip of the robot.

The mission to obtain the fragment and return with it is to last two weeks. TEPCO said a new start date is undecided.



A device to remove debris from a reactor at the damaged Fukushima Nuclear power plant demonstrates to pinch a stone, as revealed in Kobe, western Japan, May 28, 2024. Credit: Kyodo News via AP



A device to remove debris from a reactor at the damaged Fukushima Nuclear power plant is revealed in Kobe, western Japan, May 28, 2024. Credit: Kyodo News via AP



This aerial photo shows the damaged Fukushima Nuclear power plant, sitting in coastal towns of Okuma and Futaba, northeastern Japan, Feb. 11, 2024. Credit: Kyodo News via AP

"It seems to me a basic mistake," TEPCO spokesperson Kenichi Takahara said of the pipe setup problem. He said officials are investigating and the retrieval mission will resume only after they find the cause and have preventive measures "so a problem like this should never be repeated."

TEPCO President Tomoaki Kobayakawa said the priority was safety rather than rushing the process.

The goal of the operation was to bring back less than 3 grams (0.1

ounce) of an estimated 880 tons of fatally radioactive molten fuel. The small sample will provide key data to develop future decommissioning methods and necessary technology and robots, experts say.

Better understanding of the melted fuel debris is key to decommissioning the three wrecked reactors and the entire plant.

The government and TEPCO are sticking to a 30 to 40-year cleanup target set soon after the meltdown, despite criticism it is unrealistic. No specific plans for the full removal of the melted fuel debris or its storage have been decided.

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