

Japan to create underground ice wall at crippled nuclear plant

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Welded tanks are seen being built above ground at the Fukushima nuclear plant in Okuma, Fukushima Prefecture, on March 10, 2014

Japan's nuclear regulator on Monday approved a plan to freeze the soil under the crippled Fukushima nuclear plant to try to slow the build-up of radioactive water, officials said.

The Nuclear Regulation Authority examined plans by Tokyo Electric Power Co (TEPCO) to construct an underground ice wall at the

Fukushima Daiichi nuclear plant starting in June, regulatory officials said.

The wall is intended to block groundwater from nearby hillsides that has been flowing under the plant and mixing with [polluted water](#) used to cool reactors that went into meltdown after an earthquake and tsunami in March 2011.

Under the plan, which is funded by the government, the firm will circulate a special refrigerant through pipes in the soil to create the 1.5-kilometre (0.9-mile) frozen wall that will stem the inflow of groundwater.

"We had some concerns, including the possibility that part of the ground could sink," one official said on condition of anonymity.

"But there were no major objections to the project during the meeting, and we concluded that TEPCO can go ahead with at least part of the project as proposed after going through further necessary procedures."

However, TEPCO may have to review other parts of the project amid fears it might affect existing structures at the plant such as underground drains, he added.

The idea of freezing a section of the ground, which was proposed for Fukushima last year, has previously been used in the construction of tunnels near watercourses.

However, scientists point out that it has not been done on this scale before nor for the proposed length of time.

Coping with the huge—and growing—amount of [water](#) at the tsunami-damaged plant is proving to be one of the biggest challenges for TEPCO,

as it tries to clean up the mess after the worst nuclear disaster in a generation.

As well as all the water used to keep broken reactors cool, the utility must also deal with the water that makes its way along subterranean watercourses from mountainsides to the sea.

Last week TEPCO began a bypass system that diverts groundwater into the sea to try to reduce the volume of contaminated water.

Full decommissioning of the plant at Fukushima is expected to take several decades. An area around the plant remains out of bounds and experts warn that some settlements may have to be abandoned because of high levels of radiation.

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