The Telegraph

Japanese nuclear emergency workers enter Reactor No 1 for first time

Emergency workers at Japan's stricken Fukushima nuclear plant entered one of its reactor building for the first time since it was crippled by an earthquake and tsunami in March.

Robots explore the nuclear reactor building of Unit 1 of the Fukushima nuclear power plant Photo: AFP/GETTY IMAGES

By Julian Ryall in Tokyo
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The Japanese (http://www.telegraph.co.uk/news/worldnews/asia/japan) workers – equipped with protective suits, masks and portable breathing systems – are attempting to connect a ventilating system to the No 1 reactor building to scrub the contaminated air. Once the interior has been rendered safer, Tokyo Electric Power Co, the plant's operator, believes it will be able to reconnect the reactor to a cooling system and potentially bring the plant to a cold shutdown in a matter of hours.

Two workers in protective clothing entered the building at 11:32am to determine radiation levels, according to Tepco officials. The company was unable to immediately provide details on the amount of radiation in the building, although a robot detected 49 millisieverts per hour on April 17.

In the days immediately after the plant was damaged by the natural disasters and a series of hydrogen explosions, as much as 400 millisieverts of radiation was being released every hour, a massive dose that

would cause radiation sickness. In comparison, a British person is exposed to an average of 3 mSv a year while a CAT scan produces a dose of about 6.9 mSv.

A team of 12 workers working in four groups entered the plant later in the day, limiting their shifts to just 10 minutes within the structure, which suffered a hydrogen explosion the day after the earthquake. Seawater was initially pumped into the nuclear reactor to stop the temperature rising further, while nitrogen has been injected into the container vessel since April 7 to avert another hydrogen explosion.

The interior of the building has been thoroughly examined by robots, enabling the emergency repair crews to identify the key tasks they face.

Robot shoots video inside Fukushima (http://www.telegraph.co.uk/news/worldnews/asia/japan/8491624/Robot-sends-back-footage-from-inside-Fukushima-plant.html)

Boat swept 1,300ft inland to become symbol of tsunami (http://www.telegraph.co.uk/news/worldnews/asia/japan/8487832/Boat-swept-1300ft-inland-to-become-symbol-of-tsunami.html)

New footage of Japan tsunami released (http://www.telegraph.co.uk/news/worldnews/asia/japan/8481255/Unseen-footage-of-Japan-tsunami-released.html)

"If we can restart the cooling system then, depending on how well it is functioning, we could bring the temperature in the reactor to a stable condition below 100 degrees in just a couple of hours," Yoshimi Hitosugi, a spokesman for Tepco, told The Daily Telegraph. "At the most, it should take a couple of days."

Reactor No 1 was one of four damaged during the earthquake and tsunami. The company must still bring three other damaged reactors under control in what has been the most serious nuclear accident since Chernobyl in 1986.