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Tokyo Electric Says Radioactive Water Still Leaking Into Sea

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By *Shinhye Kang and Jae Hur*

(See {EXT3 <GO>} for news on Japan's nuclear crisis.)

April 3 (Bloomberg) -- Tokyo Electric Power Co. said radioactive water is draining into the sea from a power cable storage pit at its stricken nuclear plant, and it will try using a special polymer to stop the leak later today.

Work to inject the polymer through a pipe connected to the pit will start this afternoon after appropriate checks, Naoki Tsunoda, a company spokesman, said by phone. Tokyo Electric, known as Tepco, also said it had found the bodies of two workers at the plant that have been missing since the March 11 earthquake and tsunami struck Japan.

Tokyo Electric also plans to start infusing nitrogen gas into the reactors today to reduce the threat of a hydrogen explosion, and is connecting power cables to cooling pumps as it tries to contain the spread of radiation and avert a meltdown at the plant.

"The water-absorbent polymer has never been used before in these cases so I'm not sure whether this works well or not," said Suh Kune Yull, a professor of Nuclear Energy System Engineering at Seoul National University. "It may not be easy as the leaking pit is very wide."

Radiation in contaminated seawater near the Fukushima Dai- Ichi plant was measured at more than 1,000 millisieverts an hour, Tepco said yesterday in a statement. Exposure to that level for an hour would trigger nausea, and four hours might lead to death within two months, according to the U.S. Environmental Protection Agency.

"The level of radiation may not affect the seawater and fish, which are moving, but it's enough to contaminate sea algae and clams near the plant if Japan fails to block the leak soon," Suh said by phone from Seoul.

Bodies Found

The two male workers found today had been performing maintenance in the basement of the No. 4 reactor at the plant on the day of the disaster, Tepco said today on a news conference streamed over the Internet. The latest deaths bring to seven the number of workers killed at Tokyo Electric's two nuclear power complexes in Fukushima, including five employees of sub- contractors whose deaths were confirmed on March 12 and 14.

The total number of dead and missing from the disaster in Japan was 27,481 as of 10 a.m. Tokyo time today.

It may take several months to stop the emission of radioactive material, Goshi Hosono, a lawmaker in the Democratic Party of Japan in the ruling coalition, told reporters. Hosono is an envoy between the government and Tepco.

Radiation Levels

A company executive said earlier today he isn't optimistic about the prospect of containing damage at the Fukushima Dai- Ichi nuclear power plant's No. 3 reactor.

"I don't know if we can ever enter the No. 3 reactor building again," Hikaru Kuroda, the company's chief of nuclear facility management, said at a press conference.

Japan's Nuclear and Industrial Safety Agency yesterday ordered Tepco to increase monitoring of seawater near the No. 2 reactor after the leaks led to a rise in radiation, agency Deputy Director Hidehiko Nishiyama said. Above-normal levels of radioactive iodine were detected in seawater 40 kilometers (25 miles) south of the plant, the agency said.

About 10 centimeters (4 inches) to 20 centimeters of radioactive water was found in the leaking pit, which is 1.2 meters by 1.9 meters across and 2 meters deep, and had a crack about 20 centimeters wide, Takashi Kurita, a company spokesman, told reporters at a briefing at Tepco's Tokyo headquarters.

Tokyo Electric tried to plug the crack by filling the pit near reactor No. 2 with concrete yesterday, Junichi Matsumoto, another company official, said at a later press conference. Water in the pit was found to have 10,000 times the normal level of toxic iodine 131, he said. Kyodo News first reported the leak yesterday.

Offering Help

The pit is at a different site from the trenches where the company found contaminated water earlier, Susumu Tsuzuki, a Tepco nuclear facility maintenance official, told reporters.

General Electric Co. Chief Executive Officer Jeff Immelt will meet officials from Tepco as the utility struggles to stabilize its damaged reactors, designed by the U.S. company.

Immelt is traveling to Japan "to meet with employees, partners and customers including Tepco," Deirdre Latour, a GE spokeswoman, said in an e-mail. Reactors at the crippled plant are based on a four-decade-old design from Fairfield, Connecticut-based GE.

"If they're meeting now, it's probably to discuss how to cool the reactors quickly, or how to scrap them, as Tepco doesn't have the technology to do this," said

Jeffrey Bor, head of the economics department at the Chinese Culture University in Taipei and a former vice president of the International Association for Energy Economics. Taiwan operates six nuclear power reactors.

Nitrogen Infusion

Tepco plans to begin infusing nitrogen into the plant today, Tsunoda said, without specifying where. The threat of a hydrogen explosion emerged when the gas was released from overheating reactors after the March 11 tsunami knocked out their cooling systems.

A 9-magnitude temblor and subsequent tsunami severed power and damaged reactors at the Fukushima complex about 220 kilometers (136 miles) north of Tokyo. Workers have been spraying water on the reactors to cool radioactive fuel rods in the worst nuclear accident since Chernobyl in 1986.

U.S. Energy Secretary Steven Chu estimated as much as 70 percent of the core in one of the six reactors may have been damaged. High radiation levels have impeded progress at the plant, Chu said April 1 during a breakfast sponsored by the Christian Science Monitor in Washington.

Emergency Measure

"Injecting nitrogen is done to cool reactors quickly," said Chinese Culture University's Bor. "Nitrogen should be considered an emergency measure and can't be used for prolonged periods because you don't have such large quantities of it."

Tepco said it is connecting power cables to cooling systems on three of four damaged reactors. Connecting power may not work because of potential damage caused by blasts that ripped through the plant in the days after the quake.

Katsumata, 71, took charge at Tepco last week when President Masataka Shimizu, 66, was hospitalized March 30 because of high blood pressure. Shimizu won't be gone from his post "for long," Katsumata said.

Japanese Prime Minister Naoto Kan yesterday made his second visit to the areas hit by the quake and tsunami, according to the prime ministers website. Kan flew on a helicopter to Iwate prefecture in the northeast to meet with evacuees and then went to neighboring Fukushima prefecture to talk with Self-Defense Forces members and other workers at the Dai-Ichi nuclear plant.

--With assistance from Tsuyoshi Inajima, Naoko Fujimura, Takashi Hirokawa and Yusuke Miyazawa in Tokyo, Rachel Layne in Boston, Yu-Huay Sun in Taipei, Wes Goodman in Singapore, Dick Schumacher in London and Akiko Nishimae in New York. Editors: Andrew Hobbs, Ken McCallum

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