

Japan warns of small radiation leak from quake-hit plant

Osamu Tsukimori and Kiyoshi Takenaka, Reuters, 3-11-11

TOKYO -- Japan warned there could be a small radiation leak from a nuclear reactor whose cooling system was knocked by Friday's massive earthquake, but thousands of residents in the area had been moved out of harm's way.

Underscoring grave concerns about the Fukushima plant some 240 km (150 miles) north of Tokyo, U.S. Secretary of State Hillary Clinton said the U.S. air force had delivered coolant to avert a rise in the temperature of the facility's nuclear rods.

Pressure building in the plant was set to be released soon, a move that could result in a radiation leak, officials said. Some 3,000 people who live within a 3 km radius of the plant had been evacuated, Kyodo news agency said.

"It's possible that radioactive material in the reactor vessel could leak outside but the amount is expected to be small and the wind blowing towards the sea will be considered," Chief Cabinet Yukio Edano told a news conference.

"Residents are safe after those within a 3 km radius were evacuated and those within a 10 km radius are staying indoors, so we want people to be calm," he added.

Prime Minister Naoto Kan was set to visit the plant on Saturday morning and also fly over the quake-hit area.

Tokyo Electric Power Co said pressure had built up inside a reactor at the Fukushima-Daiichi plant after the cooling system was knocked out by the earthquake, the largest on record in Japan.

Pressure had risen to 1.5 times the designed capacity, the Japan Nuclear Safety agency said. Media also said the radiation level was rising in the turbine building.

The cooling problems at the Japanese plant raised fears of a repeat of 1979's Three Mile Island accident, the most serious in the history of the U.S. nuclear power industry. Experts, however, said the situation was, so far, less serious.

Equipment malfunctions, design problems and human error led to a partial meltdown of the reactor core at the Three Mile Island plant, but only minute amounts of dangerous radioactive gases were released.

"The situation is still several stages away from Three Mile Island when the reactor container ceased to function as it should," said Tomoko Murakami, leader of the nuclear energy group at Japan's Institute of Energy Economics.

Toshiaki Sakai, director of the Japan Atomic Industrial Forum International Cooperation Center, said global nuclear power companies around the globe have since the U.S. accident implemented over 53 safety improvements to avert a repeat.

Reactors shut down due to the earthquake account for 18 percent of Japan's nuclear power generating capacity.

Nuclear power produces about 30 percent of the country's electricity. Many reactors are located in earthquake-prone zones such as Fukushima and Fukui on the coast.

The International Atomic Energy Agency (IAEA) estimates that around 20 percent of nuclear reactors around the world are currently operating in areas of significant seismic activity.

The IAEA said the sector began putting more emphasis on external hazards after an earthquake hit TEPCO's Kashiwazaki-Kariwa plant in July 2007, until then the largest to ever affect a nuclear facility.

When the earthquake hit the Kashiwazaki-Kariwa nuclear power plant four reactors shut down automatically. Water containing radioactive material was released into the sea, but without an adverse effect on human health or the environment, it said.

TEPCO had been operating three out of six reactors at the Fukushima Daiichi nuclear plant at the time of the quake, all of which shut down.

The spokesman added that there were no concerns of a water leak for the remaining three reactors at the plant, which had been shut for planned maintenance.