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## **TEPCO reconnaît que le réacteur n°3 de la centrale de Fukushima a perdu ses fonctions de refroidissement**

**12h - L'Agence de sûreté nucléaire et industrielle a indiqué que la compagnie a reconnu que le réacteur n ° 3 de la centrale de Fukushima a perdu ses fonctions de refroidissement, tandis que 19 personnes dans un hôpital voisin sont soignées pour avoir été exposées à la radioactivité, en plus des trois cas d'exposition enregistrés samedi.**

The Nuclear and Industrial Safety Agency said the company acknowledged that the No. 3 reactor at the Fukushima No. 1 plant had lost its cooling functions, while 19 people at a nearby hospital were found to have been exposed to radioactivity, in addition to three cases of exposure recorded Saturday.

*Texte complet :*

Water injected into Fukushima reactor

"Small amount" of radioactive substances leaked : Edano

Compiled from Kyodo, AP

Authorities scrambled Sunday to control an overheating reactor at the problem-prone Fukushima No. 1 nuclear power plant, injecting fresh water into the reactor and reducing pressure inside, top government spokesman Yukio Edano said.

The chief Cabinet secretary told a news conference "a very small amount" of radioactive substances had leaked from the plant's No. 3 reactor, dismissing concerns that the radioactivity level would affect human health.

The government and the operator, Tokyo Electric Power Co., took the measures to deal with the exposure of the tops of MOX fuel rods 3 meters above water in the reactor following a magnitude 9.0 earthquake that hit northeastern and eastern Japan on Friday.

Radiation measured 1,024 microsieverts at 8:33 a.m. on the rim of the plant's premises, Edano said. The allowable level in one hour is 500 microsievert. But the figure went down to 70 an hour later, he said.

The Nuclear and Industrial Safety Agency said the company acknowledged that the No. 3 reactor at the Fukushima No. 1 plant had lost its cooling functions, while 19 people at a nearby hospital were found to have been exposed to radioactivity, in addition to three cases of exposure recorded Saturday.

It was the sixth reactor overall at the Fukushima No. 1 and No. 2 plants to undergo cooling failure since the massive earthquake and ensuing tsunami struck on Friday.

The disaster raised fears of radioactive leaks from the plants after cooling systems there were hampered, most seriously at the No. 1 reactor.

In Vienna on Saturday, the International Atomic Energy Agency said Japanese authorities had informed it that iodine pills would be distributed to residents around the Fukushima Daiichi and Daini plants.

An explosion Saturday at the No. 1 plant blew away the roof and the walls of the building housing the No. 1 reactor's container.

The government and nuclear authorities said there was no damage to the steel container housing the troubled No. 1 reactor, noting that the blast occurred as vapor from the container turned into hydrogen and mixed with outside oxygen.

Tokyo Electric Power has begun new cooling operations to fill the reactor with seawater and pour in boric acid to prevent an occurrence of criticality.. Edano said in a news conference Sunday morning that there had been no major changes in the results of radioactivity monitoring near the No. 1 reactor.

Following the explosion, the authorities expanded from 10 km to 20 km the radius of the evacuation area for residents living in the vicinity of the Fukushima plants.

The Fukushima Prefectural Government said Saturday that three people had their clothes contaminated with radioactive substances while fleeing from the No. 1 nuclear plant.

The Fire and Disaster Management Agency said Sunday that 15 people were found to have been contaminated at a hospital located within 10 km from the No. 1 reactor. Edano said there was a possibility that nine people who fled by bus had been exposed to radioactivity.

In the types of reactors involved, water is used to cool the reactor core and produce steam to turn the turbines that make electricity. The water contains two of the least dangerous forms of radioactivity now in the news — radioactive nitrogen and tritium. Normal plant operations produce both of them in the cooling water, and they are even released routinely in small amounts into the environment, usually through tall chimneys.

The danger of nitrogen-16 is an issue only for plant workers and operators because its half-life is only seven seconds and it decays into normal oxygen. A half-life is the time it takes half the atoms of a radioactive substance to disintegrate.

The other form of radioactivity often in the cooling water of a nuclear reactor is tritium. Its half-life is 12 years.

The big worries on the reported radiation releases in Japan center on radioactive iodine and cesium. Iodine-131 has a half-life of eight days and is quite dangerous to human health. If absorbed through

contaminated food, especially milk and milk products, it will accumulate in the thyroid and cause cancer.

Over the long term, the big threat to human health is cesium-137, which has a half-life of 30 years.

It is cesium-137 that still contaminates much land in Ukraine around the Chernobyl reactor. In 1986, the plant suffered what is considered the worst nuclear power plant accident in history.