

Nuclear plant workers suffer internal radiation exposure after visiting Fukushima

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The government has discovered thousands of cases of workers at nuclear power plants outside Fukushima Prefecture suffering from internal exposure to radiation after they visited the prefecture, the head of the Nuclear and Industrial Safety Agency said.

Most of the workers who had internal exposure to radiation visited Fukushima after the nuclear crisis broke out following the March 11 quake and tsunami, and apparently inhaled radioactive substances scattered by hydrogen explosions at the Fukushima No. 1 Nuclear Power Plant.

The revelation has prompted local municipalities in Fukushima to consider checking residents' internal exposure to radiation.

Nobuaki Terasaka, head of the Nuclear and Industrial Safety Agency, told the House of Representatives Budget Committee on May 16 that there were a total of 4,956 cases of workers suffering from internal exposure to radiation at nuclear power plants in the country excluding the Fukushima No. 1 Nuclear Power Plant, and 4,766 of them involved workers originally from Fukushima who had visited the prefecture after the nuclear crisis. Terasaka revealed the data in his response to a question from Mito Kakizawa, a lawmaker from Your Party.

The Nuclear and Industrial Safety Agency said it received the data from power companies across the country that measured the workers' internal exposure to radiation with "whole-body counters" and recorded levels of 1,500 counts per minute (cpm) or higher. In 1,193 cases, workers had internal exposure to radiation of more than 10,000 cpm. Those workers had apparently returned to their homes near the Fukushima No. 1 Nuclear Power Plant or had moved to other nuclear power plants from the Fukushima No. 1 and 2 nuclear power plants.

According to Kakizawa, one worker at the Shika Nuclear Power Plant operated by Hokuriku Electric Power Co. in Ishikawa Prefecture returned to his home in Kawauchi, Fukushima Prefecture, on March 13 and stayed there for several hours. He then stayed in Koriyama in the prefecture with his family for one night before moving out of Fukushima. On March 23, he underwent a test at the Shika Nuclear Power Plant that showed his internal exposure to radiation had reached 5,000 cpm. He was thus instructed by the company to remain on standby. The radiation reading dropped below 1,500 cpm two days later, and then he returned to work.

Another male worker in his 40s told the Mainichi that he had waited at his home, about 30 kilometers from the crippled nuclear plant, following a hydrogen explosion at one of the troubled reactors. He later went through a test which showed his internal exposure to radiation had reached 2,500 cpm. "I think most of the radiation derives from iodine (which has a short half-life), and therefore the radiation reading is expected to drop. But I am worried," the man said.

The local government in Nihonmatsu, Fukushima Prefecture, has received inquiries about internal exposure to radiation from its citizens. In response, it is considering selecting infants and people working mainly outdoors and measuring their internal radiation exposure levels using whole-body

counters, officials said.

Internal exposure to radiation lasts longer and carries more risks than external exposure. People are deemed to have had internal exposure if whole-body counters detect over 1,500 cpm of radiation from them. If more than 100,000 cpm of radiation is detected from body surfaces, decontamination is said to be necessary.

A special earthquake-resistant building that serves as a base for emergency workers at the Fukushima No. 1 Nuclear Power Plant had its doors strained by hydrogen explosions at the No. 1 and 3 reactors in March, making it easier for radioactive substances to come in. "We had meals there, so I think radioactive substances came into our bodies," a male worker in his 40s said. "We just drink beer and wash them down," he added.

A 34-year-old male worker, who entered the nuclear complex earlier in May, voiced concerns over the lack of a sufficient system to check internal exposure to radiation. "Most of the workers around me have not undergone checkups at all. Those in their 20s are particularly worried," he said.

Tokyo Electric Power Co. (TEPCO), the operator of the crippled Fukushima No. 1 Nuclear Power Plant, is to check workers' internal exposure to radiation whenever deemed necessary, in addition to regular checks conducted every three months. But as of May 16, only about 1,400 workers have gone through checkups — roughly 20 percent of the total number of workers. And only 40 of the workers have had their test results confirmed. The highest level of radiation to which a worker has been exposed so far is 240.8 millisieverts, and 39 millisieverts of radiation was from internal exposure.

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* Mainichi, May 21, 2011:

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