

Fukushima: Radioactivity - subcontractors, children, Tokyo, evacuees

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Subcontractors

Whereabouts of 30 nuclear power plant subcontractors unknown: Health Ministry

The whereabouts of about 30 subcontractors who helped deal with the crisis at the crippled Fukushima No. 1 Nuclear Power Plant is unknown, the Ministry of Health, Labor and Welfare said on June 20.

The workers are among some 3,700 who worked to control the disaster in March, the month the plant was struck by the Great East Japan Earthquake and tsunami.

The workers' names were listed in records showing that they had been loaned dosimeters, but when the plant's operator, Tokyo Electric Power Co. (TEPCO), contacted the companies they were associated with, the companies replied that there was no record of those workers.

The ministry has branded TEPCO's administration of workers "sloppy" and ordered the company to conduct an investigation to identify the workers.

"We don't know why there is no record of the workers. The records and dosimeters were managed by TEPCO and its administration can only be described as sloppy," a representative of the ministry's Labor Standards Bureau said.

Ministry officials said that 3,639 emergency workers were enlisted to handle the nuclear crisis in March. As of June 20, TEPCO had reported provisional radiation exposure figures for 3,514 workers to the ministry. The other 125 had not undergone tests for internal radiation exposure as of June 20. TEPCO has asked cooperating companies to have 69 of these 125 workers tested. The remaining 56 were either about to undergo tests or could not undergo tests due to illness.

Officials said that TEPCO managed records of workers who had been loaned dosimeters between the outset of the disaster and mid-April. When workers were loaned dosimeters at the base isolation structure of the power plant and another area, the serial numbers of the dosimeters, the names of the companies involved in the work and the workers' names were recorded in handwriting. But when TEPCO contacted the cooperating companies there was no record of some 30 of the 69 workers.

All of the workers who were not found on company records have returned their dosimeters. Records of their external radiation exposure remained, but none of the workers was exposed to radiation exceeding the limit of 250 millisieverts, officials said.

Since mid-April, records have been managed with bar codes and other means of identification, but the only way to identify workers at the plant before then is through handwritten records.

Mainichi Shimbun , June 21, 2011

<http://mdn.mainichi.jp/mdnnews/national/news/20110621p2a00m0na005000c.html>

Radiation "hotspots"

City in Fukushima begins making detailed radiation map for kindergartens, preschools

MINAMISOMA, Fukushima — The board of education here is making detailed map of radiation concentrations at kindergartens and pre-schools in order to improve the efficiency of decontamination measures.

"We intend to carefully perform measurements and decontamination to secure the safety of our children," a representative of the Minamisoma Municipal Board of Education said.

The city is also receiving help from the University of Tokyo's Radioisotope Center for decontamination work. If areas of high concentration can be pinpointed through measurements, decontamination efforts can target these areas, saving time and money.

"We would like to apply this project to elementary and junior high schools as well," said a board of education member.

Only four kindergartens and preschools in Minamisoma remain open, and all of them are located more than 30 kilometers from the Fukushima No. 1 Nuclear Power Plant. Under the guidance of the Radioisotope Center, the board of education has had staff at these institutions take full radiation measurements of the properties, including indoors, and map the data.

On June 12, the Radioisotope Center found in an examination at the facilities that the central area of a playground had radiation levels far below 1 microsievert per hour, areas near the bottom of slides had as much as 2 microsieverts per hour and shrubbery near the drain of rain gutters had as much as 12 to 13 microsieverts per hour.

For comparison, national standards dictate that outside activities at schools be restricted when students would be exposed to 3.8 microsieverts of radiation an hour or more.

The head of the Radioisotope Center, Tatsuhiko Kodama, said other areas that tend to show high radiation levels are the ground below tent roofs and where material has blocked rain gutters and caused rain to spill over.

Mainichi Shimbun , June 21, 2011

<http://mdn.mainichi.jp/mdnnews/national/news/20110621p2a00m0na012000c.html>

Tokyo area parents' radiation worries grow with discovery of local 'hotspots'

Local governments are calling for calm, as annual doses of radiation at the hotspots — sites where radiation levels are significantly higher than their surroundings — would not exceed 20 millisieverts as they do in parts of Fukushima Prefecture. Residents are nevertheless calling on their local governments to take some kind of action.

"Safety and peace of mind are not the same thing," said an expert speaker at a lecture on radiation held on June 18 in Kashiwa, Chiba Prefecture, as more than 350 residents in attendance feverishly took notes. "Even if the numerical radiation values are scientifically safe, that doesn't mean people will feel all right about them."

The chairman of the local association of private kindergartens, and the lecture's organizer, said, "I hope kindergarten operators and parents use this information to make informed judgments."

Meanwhile, 33-year-old housewife and mother of two Yuki Osaku started a petition to have the earth in parks, kindergarten playgrounds and school fields replaced. With the power of the "kindergarten moms" grapevine behind her, she soon had over 10,000 signatures to submit to the city government.

The city, however, has failed to give her a concrete response, while the kindergarten her three-year-old eldest son attends has also taken a very negative view of any anti-radiation measures, Osaku says. She is now wondering if she should pull her son from the kindergarten in July.

Similar signature drives have been mounted by parents in Tochigi and Ibaraki prefectures, as well as Tokyo proper.

"Everyone is worried about their children," Osaku says. Meanwhile, there are some kindergartens in Kashiwa and neighboring Abiko that have replaced the topsoil on their playgrounds themselves.

However, even as radiation hotspot worries mount, there continues to be only one site in all of Chiba Prefecture where radiation levels are being formally monitored, drawing criticism. Local radiation tests performed at primary schools and other public spaces at the end of May revealed a 0.54 microsievert per hour radioactive hotspot at a Kashiwa park. The prefectural monitoring post some 50 kilometers south southeast of the park, meanwhile, has recorded radiation doses of only 0.08 microsieverts per hour — a discrepancy which has stoked the fears of parents.

Meanwhile, a radiation monitoring committee formed by six cities in the northwest of Chiba Prefecture — including Kashiwa — also discovered a 0.65 microsievert per hour radioactive hotspot in a park in the city of Nagareyama.

These figures all remain well below the Ministry of Education, Culture, Sports, Science and Technology's provisional upper exposure limit of 3.8 microsieverts per hour for schoolyards. However, parents are concerned that the levels measured at the parks in Chiba Prefecture would, over the course of a year, exceed the ministry's maximum annual radiation dose of 1 millisievert — which translates into an hourly exposure of 0.19 microsieverts.

The prefecture in fact closed part of a nursery school playground in the city of Noda on June 20, after discovering a hotspot emitting over 0.19 microsieverts per hour.

"Even if we're told we're making too much of a fuss over the issue, we have to do something to ease our citizens' fears," said Noda Mayor Takashi Nemoto. The park in Nagareyama with the highest detected radioactivity in the six cities, meanwhile, was given an emergency mowing to reduce the radiation level.

Independent radiation readings are also spreading across metropolitan Tokyo. The capital's Katsushika Ward has been flooded with enquiries from residents since a hotspot was reported there in May. In response, the ward government began taking radiation measurements at seven locations in its jurisdiction on June 2, registering readings in the 0.1 to 0.2 microsievert hourly dose range. The ward has published the readings on its homepage and in a brochure, and also sends them by e-mail to anyone interested.

Mainichi Shimbun , June 21, 2011

<http://mdn.mainichi.jp/mdnnews/national/news/20110621p2a00m0na017000c.html>

82 millisieverts outside zone seen

Cumulative radiation outside the 20-km radius of the crippled Fukushima No. 1 nuclear power plant in the past three months has reached as high as 82 millisieverts, more than four times the limit of 20 millisieverts a year, a science ministry estimate showed Tuesday.

The highest level was detected in a part of Namie, Fukushima Prefecture, around 22 km northwest of the nuclear plant crippled since the March 11 earthquake and tsunami, according to the data compiled by the Education, Culture, Sports, Science and Technology Ministry.

Namie is among the designated evacuation areas lying outside of the no-entry zone where radiation levels are feared to exceed the annual limit of 20 millisieverts. Of 160 monitoring sites in the designated areas outside the no-entry zone, 23 registered radiation levels exceeding 20 millisieverts over the three-month period, the ministry said.

Outside the areas subject to evacuation, an area in the city of Minamisoma had an estimated cumulative level of 20.4 millisieverts a year since the start of the crisis.

Kyodo, June 23, 2011

<http://search.japantimes.co.jp/cgi-bin/nn20110623a9.html>

Trace amounts of radioactive materials found in Fukushima kids' urine

TOKYO (Kyodo) — Trace amounts of radioactive substances were found in urine samples of all of 10 surveyed children from Fukushima Prefecture in May, where a crippled nuclear power plant is located, a local citizens group and a French nongovernmental organization said Thursday.

David Boilley, president of the Acro radioactivity measuring body, said at a press conference in Tokyo that the results of the survey on 10 boys and girls in Fukushima City aged between 6 and 16 suggest there is a high possibility that children in and near the city have been exposed to radiation internally.

The citizens group, the Fukushima Network for Saving Children from Radiation, comprising parents in the prefecture, said the finding is “certainly” due to the nuclear crisis at the Fukushima Daiichi power plant crippled by the March 11 earthquake and tsunami.

The group added it will urge the central and local governments to have all citizens in the prefecture undergo detailed tests soon using whole body counters.

Chief Cabinet Secretary Yukio Edano said later in the day at a press conference, “The government is concerned” about the finding. He added the government wants to obtain detailed results of the survey so they can be thoroughly examined.

Edano said the government also intends to accelerate work to analyze similar surveys conducted by itself and Fukushima prefectural authorities.

According to the urine test, 1.13 becquerels of radioactive cesium-134 per 1 liter of urine, the largest amount for the isotope among the 10 surveyed children, was found from an 8-year-old girl, while the largest amount of cesium-137 at 1.30 becquerels was found in a 7-year-old boy.

Acro also investigated radiation exposure of children who resided near the site of 1986 Chernobyl nuclear disaster.

Kyodo, June 30, 2011

<http://mdn.mainichi.jp/mdnnews/news/20110630p2g00m0dm106000c.html>

113 families advised to evacuate as 'hot spots' from nuclear crisis

TOKYO (Kyodo) — The government said Thursday it has designated 113 families in 106 households in four locations in Date, Fukushima Prefecture, as “hot spots” for recommended evacuation in the wake of the local nuclear plant crisis.

The first designation of hot spots, where radiation levels are sporadically higher than other locations nearby, has been conveyed to the Date city office, which will notify the 113 families of the evacuation advice on Friday, the government said.

A hot spot consists of a household where an annual level of radiation is estimated to top 20 millisieverts and neighboring houses. The government will support those who wish to evacuate from the hot spots, especially urging children and pregnant women to leave.

The NNSA hazard map released by the U.S. federal government. The Fukushima No. 1 Nuclear Power Plant is marked by a white dot at right.

The NNSA hazard map released by the U.S. federal government. The Fukushima No. 1 Nuclear Power Plant is marked by a white dot at right.

The government continues monitoring radiation levels in candidate locations for hot spots in Minamisoma, also in Fukushima.

As radioactive substances do not evenly spread as a result of weather and geographical conditions, radiation levels are higher in certain locations than those nearby.

Kyodo, July 1, 2011

<http://mdn.mainichi.jp/mdnnews/news/20110701p2g00m0dm013000c.html>

Evacuation policy

Directive may be relaxed on evacuation preparedness

FUKUSHIMA – The government will consider lifting a directive that requires residents in some

districts of Fukushima Prefecture to be prepared to evacuate or remain indoors if the situation at the Fukushima No. 1 nuclear plant worsens, Goshi Hosono, state minister in charge of the nuclear crisis, said Saturday.

Hosono told reporters after meeting with Fukushima Gov. Yuhei Sato at the prefectural government office that the lifting of the directive will be considered when "Step 1," or the initial step to bring the plant under control, is completed July 17.

"I hope that schools and hospitals will be reopened at an early date, and I want people who have moved out of the areas to return," Hosono said, adding he told Sato that he plans to consult with the local authorities concerned about lifting the directive.

It is the first time that Hosono has visited Fukushima since becoming minister in charge of handling the crisis in late June.

In April, about 67,000 residents in a zone 20-30 km from the radiation-leaking nuclear plant became subject to the directive, including the town of Hirono and some districts in Naraha, Kawauchi, Tamura and Minamisoma.

Kyodo, July 3, 2011

<http://search.japantimes.co.jp/cgi-bin/nn20110703a1.html>

Fukushima group issues certificates to support voluntary evacuees

A civic group of parents and other parties in Fukushima Prefecture has started issuing certificates to support residents who are voluntarily evacuating to avoid exposure to radiation from the ongoing crisis at the Fukushima No. 1 Nuclear Power Plant.

The Fukushima Network for Saving Children from Radiation (Kodomo Fukushima) has initiated the measure at a time when both the central and local governments have been unable to determine exactly how many people have voluntarily fled their homes or are planning to do so in the near future.

The certificate is not legally binding but may help the central government and local authorities to come up with an estimated number of voluntary evacuees.

The network issues a certificate to each household to certify their voluntary evacuation. The form lists their names, pre-evacuation address, date of their evacuation as well as cars, furniture and other key belongings they have left behind.

An application form can be obtained online from Kodomo Fukushima's website (<http://kofdomofukushima.at.webry.info/>). Applicants are required to write the distance from their homes to the crippled nuclear power plant and the air radiation dose rate at the time of evacuation, as well as other details, along with copies of ID cards and photos of

their houses.

The network started accepting applications on June 13 and issued the first certificate dated June 16.

"We hope the certificate will offer some emotional support and assist people at places of evacuation. By issuing the certificate, we want to appeal for the right to voluntarily evacuate," said an official of the network.

Fukushima Prefecture requested the central government in May to provide voluntary evacuees beyond the no-go zone with compensation to cover costs associated with voluntary evacuations.

But many voluntary evacuees are said to have gone to the homes of their parents and relatives, making it difficult for the central and local governments to get a grasp of evacuation numbers and specifics.

Mainichi Shimbun , June 21, 2011

<http://mdn.mainichi.jp/mdnnews/national/news/20110621p2a00m0na019000c.html>

You try living in Fukushima,' governor tells TEPCO president in verbal dressing-down

FUKUSHIMA — Prefectural Gov. Yuhei Sato tore into the president of Tokyo Electric Power Co. (TEPCO), the operator of the Fukushima No. 1 Nuclear Power Plant, during a visit by the utility chief to apologize for the ongoing nuclear crisis afflicting the prefecture.

"You will understand nothing about what's really going on just by visiting for two or three hours," Sato told TEPCO President Masataka Shimizu and his projected successor Toshio Nishizawa during a meeting in the governor's office in the Fukushima Prefectural Office on June 21. "You try living in Fukushima for 100 days or so."

The pair of TEPCO executives made no reply, only hanging their heads in shame.

The meeting lasted only about 10 minutes, during which Shimizu said, "We have brought distrust upon nuclear power as a whole, and terrible trouble to everyone in society."

TEPCO Managing Director and future president Nishizawa remained silent for most of the proceedings, though he told reporters after the meeting, "Resolving the crisis will be my responsibility. I will bring all TEPCO's management resources and all my strength to bear on the problem."

Shimizu is scheduled to resign his post at a June 28 general stockholders meeting to take responsibility for the Fukushima nuclear disaster. Nishizawa will replace him at a subsequent board of directors meeting.

Mainichi Shimbun , June 22, 2011

<http://mdn.mainichi.jp/mdnnews/news/20110622p2a00m0na004000c.html>

Research team invents glowing, radiation-detecting plastic

Japanese researchers have developed a plastic that glows an eerie blue when exposed to radiation that could find its way into future portable dosimeters.

Invented by a research team from Kyoto University, the National Institute of Radiological Sciences and Teijin Chemicals Ltd. led by Kyoto University nuclear laboratory assistant professor Hidehito Nakamura, the new plastic is cheap, easy to manufacture and could be put into mass production. The researchers are aiming to have the plastic on the market by the autumn.

"Because of the Fukushima No. 1 Nuclear Power Plant disaster, it's become necessary for people to keep a dosimeter close at hand," Nakamura says. "I'd like to see this plastic put to use in portable radiation detectors that could just be hung from mobile phone straps."

Current radiation detectors emit visible light when hit with radiation. There are some detectors that already use plastic, but they require a highly specialized manufacturing process to make, pushing per unit production costs into the tens of thousands or even hundreds of thousands of yen.

The new mass-production ready material, by comparison, will likely cost less than one-tenth that. On top of being cheaper, the plastic is also better at detection, as it responds to alpha, beta and gamma radiation. The research team says that the plastic could also be used in "whole body counters," radiation detectors for measuring internal radiation exposure.

Nakamura discovered last year that regular PET bottles could detect ultraviolet rays when hit with radiation. He confirmed that the effect was related to the sensitivity of oxygen in the plastic to radiation. Nakamura created increasingly sensitive plastics, finally arriving at the glowing material.

The research team's discovery was published in the June 29 digital issue of Europhysics News, a publication of the European Physical Society.

Mainichi Shimbun, June 29, 2011

<http://mdn.mainichi.jp/mdnnews/national/archive/news/2011/06/29/20110629p2a00m0na008000c.html>
