

Earthquake Report - JAIF

We have been reporting a status of Fukushima Daiichi nuclear power station by summarizing news aired by NHK, which is Japanese national broadcasting company. We regard it as most credible news among many news sources and I am happy to say that NHK's English website has gotten enriched and now you can see movies and English scripts at <http://www3.nhk.or.jp/daily/english/society.html>. Given this situation, we decide to simply place these scripts as it is for the record in case that it will be deleted from the website later, rather than summarizing news as we did.

No. 36

Today's NHK news regarding status of Fukushima Daiichi nuclear power station as of 21:00 on March 29

● **Seawater radiation levels down**

The Tokyo Electric Power Company says levels of radiation in seawater near the troubled Fukushima Daiichi nuclear power plant have dropped at 2 locations.

Seawater 50 meters north of the plant on Monday afternoon was found to contain 27 becquerels of radioactive iodine-131 per cubic centimeter, or 665.8 times higher than the regulated standard.

The level at the location was 1,150 times higher than the standard on Sunday. 330 meters south of the plant, the level was 27.9 times higher than the standard on Monday afternoon, down from more than 1,000 times above the standard on Friday and Saturday.

At Iwasawa Beach, 16 kilometers south of the plant, the level was 58.8 times above the standard on Monday morning, up from Sunday's figure of 7.4 times. Jun Misonoo of Japan's Marine Ecology Research Institute says radioactive substances that leaked into seawater from the plant is expected to initially flow south along the coast and be diluted by seawater.

The flow is likely to converge with the Japan Current off the eastern tip of Chiba Prefecture and go out into the Pacific Ocean, where the radiation concentration would likely be diluted considerably.

Misonoo urged careful monitoring of fish and shellfish for traces of radioactive substances such as cesium that come from power plants and remain in the environment for long periods.

Tuesday, March 29, 2011 16:55 +0900 (JST)

● **Leaked radioactive water hampers cooling of plant**

No major progress is reported in the effort to drain radioactive water filling the basements of turbine buildings near 3 reactors in the damaged Fukushima nuclear facility.

The delay is hampering work to cool down and stabilize the Daiichi nuclear power plant.

At the Number One reactor, workers have been pumping out contaminated water that filled the turbine condenser.

Tokyo Electric Power Company says the water level inside the device has dropped, but cannot say exactly by how much.

The plant operator plans to drain the basements of the Number 2 and 3 units and transfer the leaked water into the condensers of the reactors.

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But the condensers are already full of water, which will first have to be moved to other tanks in the system.

TEPCO says work has already begun, but it is hard to forecast when the drainage will end.

Machines and equipment to restore automatic cooling systems for the reactors are installed inside the turbine buildings.

But the delay in draining contaminated water is blocking restoration.

Tokyo Electric Power Company has begun pouring more fresh water into the No.1 reactor at the Fukushima Daiichi nuclear power plant to cool it down.

TEPCO says the surface temperature of the No.1 reactor rose from 212.8 degrees Celsius as of 6 AM on Monday to 329.3 degrees 20 hours later.

It blames heat generated by the reactor's nuclear fuel. The reactor is designed to operate up to 302 degrees under normal conditions.

The power company raised the volume of water into the reactor from 113 liters a minute to 141 liters at 8 PM on Monday. As a result, it says, the reactor's temperature fell to 323.3 degrees as of 6 AM on Tuesday.

TEPCO says it will continue closely monitoring the reactor while fine-tuning water volume.

Tuesday, March 29, 2011 16:19 +0900 (JST)

●TEPCO urged to check leaked water in tunnels

The government's nuclear safety agency has ordered Tokyo Electric Power Company to closely monitor radiation and water levels in tunnels outside the turbine buildings for 3 damaged reactors.

The water was found leaking from the reactors and is filling tunnels linking the reactor buildings to outside the damaged Fukushima Daiichi power plant. Radioactivity on the surface of water found just outside the turbine building of the Number 2 reactor is particularly high, at over 1,000 millisieverts per hour. The nuclear agency told reporters on Tuesday that as far as it is aware, the tunnels are not flooded, and are not directly connected to the sea.

As of Monday, the water had reached 10 centimeters from the mouth of the tunnel for the No.1 reactor. It was about a meter from the mouth of tunnel from the No. 2 reactor and 1.5 meters from the No. 3 reactor tunnel.

The agency said it has ordered TEPCO to carefully monitor the radiation and water levels.

TEPCO is piling up sandbags and concrete around the mouth of the tunnels to prevent flooding.

Tuesday, March 29, 2011 12:56 +0900 (JST)

●Tokyo Electric Power Company says plutonium has been found in soil samples from the Fukushima Daiichi nuclear power plant.

It says the radioactive substance appears to be related to the ongoing nuclear accident, but the level detected is the same as that found in other parts of Japan and does not pose a threat to human health.

TEPCO collected samples from 5 locations around the power plant over 2 days from March 21st and found 2 samples contaminated with plutonium.

Plutonium is a byproduct of the nuclear power generation process. At the number 3 reactor of the Fukushima plant, plutonium is an ingredient in mixed oxide, or MOX, fuel.

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Radioactivity from plutonium can be shielded by a sheet of paper. But it can remain in lungs and other organs to cause long-term damages including cancer. The Nuclear and Industrial Safety Agency says the detected level is the same as that found in the environment and not health-threatening for workers who conducted the sampling, nor residents in surrounding areas.

The agency said it is awaiting the results of another survey by the Science Ministry outside of a 20-kilometer radius from the plant, as well as a further survey by TEPCO in the plant compound.

Tuesday, March 29, 2011 02:20 +0900 (JST)

●TEPCO faces challenge in cooling reactor

The Nuclear and Industrial Safety Agency said on Monday that TEPCO has to strike a balance between injecting cooling water into the reactors and preventing radioactive water from seeping out.

On Monday, the power company detected radiation of more than 1,000 millisieverts per hour on the surface of puddles in the No. 2 reactor's turbine building and in a trench outside the building.

The concrete trench stretches toward the coast but does not connect to the sea. Puddles of water were also found in the trenches of the No.1 and No.3 reactors.

The No.1 reactor's trench will overflow if the water rises by 10 centimeters. TEPCO has blocked the trench outlet with sandbags and concrete to prevent the water from reaching the ocean.

The water in the trenches of the No.2 and No.3 reactors is reportedly 1 meter from overflowing.

TEPCO said it hopes to swiftly find a way to remove the water from the trenches.

On Monday, The power company scaled back its operation to cool the No. 2 reactor, injecting 7 tons per hour, reduced from 16. The reactor's temperature rose by more than 20 degrees Celsius.

Tuesday, March 29, 2011 08:03 +0900 (JST)

●Radioactive water in external tunnels

The operator of the damaged nuclear power plant in Fukushima, northeastern Japan, has reported that very high levels of radiation have been observed in water in a trench just outside the turbine building for one of the reactors.

Tokyo Electric Power Company announced on Monday that a puddle of water was found in a trench outside the No. 2 reactor turbine building at the Fukushima Daiichi nuclear plant on Sunday afternoon. It said the radiation reading on the puddle's surface indicated more than 1,000 millisieverts per hour.

The concrete trench is 4 meters high and 3 meters wide and houses power cables and pipes. It is located in the compound of the plant but outside the radiation control area.

TEPCO says the trench extends 76 meters toward the sea but does not reach the sea, and that the contaminated water was not flowing into the sea.

TEPCO says it is trying to find out how the contaminated water came to be in the trench.

Radiation levels of more than 1,000 millisieverts per hour were recorded on

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Sunday in a puddle of water in the basement of the No. 2 reactor turbine building. Puddles of water were also found in the trenches outside the No. 1 and No. 3 reactors. TEPCO reported 0.4 millisieverts of radiation on the surface of the puddle in the No. 1 reactor's trench. But it said it failed to measure the No. 3 reactor's trench because it was covered with debris.

TEPCO says it had no intention of concealing data regarding the high level of radiation detected on Sunday outside a turbine building at its Fukushima Daiichi nuclear plant.

TEPCO Vice President Sakae Muto said at a news conference on Monday that he only received the report from the plant workers earlier in the day.

The plant operator has revealed that it found water in a covered tunnel outside the turbine building of the number 2 reactor, and that radiation of more than 1,000 millisieverts per hour was detected in the water.

Muto said the company has made this public and instructed the plant workers to quickly take steps to dispose of the water.

Asked by reporters if TEPCO was concealing information, Muto said the company has no intention of doing so.

He also said every day is full of events, and that TEPCO will quickly share information of high importance so that it can swiftly consider countermeasures.

Vice President Muto added that the plant operator will confirm the flow of information and have it thoroughly implemented in order to avoid misunderstandings.

Tuesday, March 29, 2011 02:21 +0900 (JST)

●Radiation hampers cooling efforts

The effort to cool reactors at the damaged nuclear power plant in Fukushima, northern Japan, is facing the risk of leaking highly radioactive substances.

The plant's operator, Tokyo Electric Power Company, raised water pumping power on Sunday to cool the No. 2 reactor in a stable manner. On Monday, the company cut back on the amount of injected water.

The move followed the Nuclear Safety Commission's announcement that highly radioactive substances detected in puddles of water in the basement of the reactor's turbine building may have come directly from the vessel containing the reactor.

16 tons of water was being injected into the reactor every hour but TEPCO now says it wants to reduce the amount to 7 tons. This would be enough to replace the amount that is evaporating.

If the injected water level is reduced, temperatures may increase in the reactor.

TEPCO announced on Monday that radioactive substances 100,000 times higher than usual for water in a reactor core were detected in puddles in the No. 2 reactor's turbine building on Sunday.

High radiation figures were also recorded earlier in water in the basements of the turbine buildings for the No. 1 and No. 3 reactors. On Thursday, 3 workers were exposed to high radiation while working in water at the No. 3 reactor's turbine building.

The Nuclear Safety Commission said on Monday that the concentration of radiation at the No. 2 reactor was dozens of times higher than the other 2 reactors. The commission said it assumes that radioactive substances from temporarily

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melted fuel rods at the No. 2 reactor had made their way into water in the reactor containment vessel and then leaked out through an unknown route.

TEPCO, later, reported that very high levels of radiation have also been observed in water in a trench just outside the turbine building for one of the reactors.

The commission said the biggest concern is the possibility of highly radioactive water seeping into the ground and the ocean. It added that all-out efforts should be made to prevent contaminated water from leaking and called on the government to intensify monitoring radiation levels in the ground water and seawater.

Monday, March 28, 2011 22:38 +0900 (JST)

End