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 we are 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. 92: 18:00, May 25

NHK news regarding status of Fukushima Daiichi nuclear power station yesterday and today.

(Fukushima NPP site)

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- **TEPCO: reactor damage includes holes**
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●Radioactive water transfer halted at Fukushima

Tokyo Electric Power Company, operator of the Fukushima Daiichi nuclear power plant, has suspended work transferring highly radioactive water from two of the reactor buildings to storage facilities at the plant.

The utility stopped the work at 9 AM on Wednesday, saying it needed to work on power supply lines.

It said when that work is finished it will resume the transfer of water from the Number 2 reactor, but not from Number 3, because storage facilities are nearly full.

Contaminated water accumulating in the reactors' turbine buildings and utility tunnels is hampering the utility's efforts to get the crippled nuclear plant under control.

Tokyo Electric is aiming to transfer a total of 14,000 tons of contaminated water from the two reactor buildings to the storage facilities.

That work is about 90 percent complete at the Number 3 reactor building, but can't be finished until the utility determines how much more storage space is left.

Wednesday, May 25, 2011 13:22 +0900 (JST)

●TEPCO: reactor damage includes holes

The operator of the troubled Fukushima Daiichi nuclear power plant says data analyses suggest that damage to its reactors may have caused holes inside them of up to 10 centimeters across.

Reactors 1 through 3 at the plant suffered nuclear fuel meltdowns after the March 11th earthquake and tsunami. This is likely to have created holes and cracks at the bottom of the pressure vessels protecting the reactor cores and damaged the containment vessels.

Massive amounts of highly radioactive water also leaked from the structures.

Tokyo Electric Power Company analyzed the changes in pressure levels inside the pressure and containment vessels after the quake to gauge the scope of the damage.

TEPCO said the analyses show that a hole 3 centimeters across may have been created at the containment vessel of the Number One reactor 18 hours after the quake. It added that a hole as large as 7 centimeters across is also likely to have been created at least 50 hours after the quake.

It also said a hole about 10 centimeters across may have been created in the containment vessel of the Number 2 reactor about 21 hours after the quake. It said that after the sound of an explosion was heard from the suppression pool of the Number 2 reactor on March 15th, a hole as large as 10 centimeters across may have been created there.

TEPCO said these results were obtained through data calculations, and that it has yet to confirm whether such holes actually exist.

Wednesday, May 25, 2011 12:56 +0900 (JST)

●High levels of cesium detected above No.1 reactor

The operator of the Fukushima Daiichi nuclear plant says the density of radioactive cesium above the No.1 reactor is 18 times the permissible level for the edge of the plant's compound.

Large amounts of radioactive substances have been released into the air since reactor cores and buildings were damaged, but measurements were not available.
On Sunday, Tokyo Electric Power Company began measuring the density of radioactive elements above the No.1 and No.4 reactors.
The firm used instruments attached to the crane pumps that are injecting water into the reactors.
TEPCO detected 360 becquerels of cesium-134 per cubic meter above the No.1 reactor, where most of the fuel rods are believed to have melted. The amount is 18 times the allowable limit for the plant's perimeter.
The firm also discovered 7.5 times the limit of cesium-134 above the No.4 reactor, which has no fuel in its core. The substance is believed to have come from the fuel storage pool and the neighboring No.3 reactor.
TEPCO says it will measure the levels of radioactive elements above the No.2 and No.3 reactors. It also plans to cover the reactor buildings with polyester sheets to prevent the further dispersal of radioactive materials into the air.
Wednesday, May 25, 2011 07:48 +0900 (JST)

●No.1 reactor vessel damaged 18 hrs after quake

The operator of the Fukushima Daiichi nuclear power plant says the containment vessel of the No.1 reactor may have been damaged about 18 hours after the March 11th earthquake, allowing highly radioactive water to leak.
The quake knocked out the reactor's cooling system. The situation is believed to have caused the fuel rods to melt, creating holes in the pressure vessel, and damaging the containment vessel.
On Tuesday, Tokyo Electric Power Company, or TEPCO, released the results of its analysis of the temperature and water level of the reactor.
The temperature of the containment vessel began to rise immediately after the earthquake. It shot up 15 hours after the quake, when a meltdown is believed to have occurred.
At 9 AM on March 12th, around 18 hours after the quake, the vessel's temperature had reached 300 degrees Celsius. That's more than double the temperature it was designed to withstand.
TEPCO says that when the temperature of a containment vessel hits 300 degrees, the rubber and metal parts used to seal joints will be damaged. The utility says highly contaminated water may have leaked through these damaged sections.
This is the first time that TEPCO has given details of how highly radioactive water may have been leaked at the No.1 reactor.
Meltdowns are also believed to have occurred at the No.2 and No.3 reactors. Further analysis will be needed to determine if these meltdowns created holes in the containment vessels and allowed contaminated water to leak.
Wednesday, May 25, 2011 05:02 +0900 (JST)

●NISA wants measures to stop seawater contamination

Japan's nuclear regulatory agency has instructed the operator of the troubled Fukushima Daiichi nuclear power plant to take additional measures to prevent

further leakage of radioactive water into the sea.
The Tokyo Electric Power Company, or TEPCO, found on May 11th that highly radioactive water was flowing into the sea through a pit near a water intake for the plant's No. 3 reactor.
TEPCO estimates that 250 tons of contaminated water was discharged in 41 hours, and that it contained 20 terabecquerels of radioactivity -- about 100 times more than permitted annually at the plant.
In April, contaminated water with about 4,700 terabecquerels -- 20,000 times more than the annual limit -- was discharged into the sea from the No. 2 reactor.
TEPCO is trying to plug pits at the plant with concrete and studying the feasibility of building a system for purifying seawater near the water intake.
The Nuclear and Industrial Safety Agency ordered TEPCO to also survey other places at risk of radioactive leakage and take preventive action.
The agency has also asked TEPCO to wrap up a plan for storing and treating radioactively contaminated water at the plant by June 1st.

Tuesday, May 24, 2011 20:52 +0900 (JST)

●Meltdowns also at No.2 and No.3 reactors

The operator of the Fukushima Daiichi nuclear plant says fuel meltdowns are believed to have occurred at the No.2 and No.3 reactors within a few days after the March 11th earthquake and tsunami.
Tokyo Electric Power Company said earlier this month that fuel rods at the plant's No.1 reactor had melted.
The utility said on Tuesday that data analysis shows the No.2 reactor may have lost its cooling system shortly after 1:00 PM on March 14th, 3 days after the quake.
If all the fuel rods were exposed, they would have started melting at around 8:00 PM that day. By 8:00 PM on March 15th --- some 101 hours after the quake --- much of the fuel would have melted and collected at the bottom of the reactor pressure vessel.
The No.3 reactor likely lost its cooling system at around 2:00 AM on March 13th. Fuel would have begun melting at around 9:00 AM that day, and most of it would have dropped to the bottom of the vessel by 3:00 AM on March 14th --- about 60 hours after the quake.
The possibility of a meltdown would have been the same even if the rods were partially submerged in water.
Nearly half the fuel rods at the 2 reactors would have melted down within a week of the March 11th disaster.
Tokyo Electric says it had assumed from the start that the fuel roads were damaged, but had focused on cooling the reactors rather than assessing the extent of damage.
Goshi Hosono, who serves as advisor to the prime minister, said the delay in publicizing the extent of damage may have been inevitable.
But he expressed remorse over the government's overly optimistic response to the crisis.
Masanori Naito of the Institute of Applied Energy says analysis of data on the

reactors' conditions is easy, and could have been completed in a day.
He says the analysis should have been done much earlier, as it would have provided important clues to long-term cooling and other measures.

Tuesday, May 24, 2011 19:12 +0900 (JST)

●IAEA team briefed on Fukushima Daiichi accident

A team of experts from the International Atomic Energy Agency is being briefed on the nuclear accident at the Fukushima Daiichi power plant by the Japanese government on Wednesday.
The IAEA team is now in Japan to investigate the Fukushima accident. On Wednesday morning, 18 experts from 10 countries including Britain, France and South Korea visited the industry ministry.
Nuclear and Industry Safety Agency Director General Nobuaki Terasaka briefed them on the situation at the plant, which has yet to be brought under control.
He said expert analysis compiled by the plant operator, Tokyo Electric Power Company, shows that a meltdown likely occurred at the Number One reactor 15 hours after the massive quake hit the facility on March11th.
According to the expert analysis, meltdowns probably occurred at the Number 2 and 3 reactors as well.
Terasaka told the IAEA team that Japan is striving to shift its efforts from stopgap measures to steady and organized containment of the accident.
Team leader Michael Weightman said it will submit a report to an IAEA meeting scheduled for next month. He asked Japan to provide all relevant information so that the international community can share lessons learned from Fukushima.
The team will receive briefings by the Nuclear Safety Commission and the science ministry later on Wednesday before visiting the Fukushima plant on Thursday. It will submit an outline of its report to the Japanese government on June first.
Wednesday, May 25, 2011 11:59 +0900 (JST)

●Kan arrives in Paris for G8 summit

Japanese Prime Minister Naoto Kan arrived in Paris on Tuesday night to attend the Group of Eight summit.
This is his first overseas trip since the March 11th earthquake and tsunami.
Kan will meet French President Nicolas Sarkozy in Paris on Wednesday before traveling to Deauville, where the 2-day G8 summit will start on Thursday.
Kan will express Japan's gratitude to France for providing support in the aftermath of the disaster. He will promise that Japan will make the utmost efforts to bring the Fukushima nuclear accident under control. The prime minister will also pledge thorough information disclosure and analysis of the accident to help enhance the safety of nuclear reactors around the world.
Kan and Sarkozy are expected to confirm that they will aim to reach an

agreement with the other G8 leaders on safety standards for nuclear reactors.
The 2 leaders will confirm their continued bilateral cooperation to tackle the Fukushima accident and rebuild the devastated areas of northeastern Japan. They will also discuss the possible start of negotiations on an economic partnership agreement between Japan and the European Union.

Wednesday, May 25, 2011 05:28 +0900 (JST)

●IAEA to compile Fukushima accident report

A team of experts from the International Atomic Energy Agency will begin investigating the Fukushima nuclear accident on Wednesday. They will present their independent report to the Japanese government on June 1st.
The group of 18 experts from Britain, France, South Korea, and other countries arrived in Japan on Tuesday.
They will visit the industry ministry on Wednesday and will be given a briefing by the Nuclear and Industrial Safety Agency on the accident and the steps taken to contain it.
The IAEA team will look into the damage caused by the March 11th earthquake and tsunami at the Fukushima Daiichi nuclear power station.
They will examine the timing of seawater injections into the plant's reactors and other measures taken by the government and the plant's operator, Tokyo Electric Power Company.
Another key point in their report will be the evacuation advisories and orders that the government has issued for residents living near the plant.
The group will visit the Fukushima Daiichi plant and other nuclear power stations hit by the March disaster. At the Fukushima plant, they will inspect the ongoing containment work and may interview the head official.
Team leader Mike Weightman told Japan's industry minister Banri Kaieda on Tuesday that his agency wants to use the lessons of the Fukushima accident to improve the safety of nuclear power plants across the globe.
Wednesday, May 25, 2011 01:09 +0900 (JST)

●Cattle moved out of evacuation area

Residents in an evacuation area near the troubled Fukushima Daiichi nuclear power plant have started moving their cattle to a neighboring city.
Katsurao village is helping livestock farmers move their animals as it aims to complete the evacuation by the end of May. More than 400 cows are still in the village.
The transfer of about 170 cows from the village to neighboring Tamura City started on Tuesday.
Earlier this month, small amount of radioactive cesium was detected in beef processed from cows carried from Katsurao Village to Aomori Prefecture.
The cattle transfer from the village to Tamura City is to continue through this week.
Many livestock farmers in other communities under evacuation orders have

stayed on their farms, as they have animals to take care of.
Fukushima prefectural government is trying to evacuate them, by seeking places to move their animals, or urging them to sell the livestock.

Tuesday, May 24, 2011 19:11 +0900 (JST)

●Govt concerned over nuke crisis impact on economy

Japan's government has left its basic economic assessment unchanged, while expressing concern over the negative impacts of the ongoing Fukushima nuclear accident on the domestic economy.
In its monthly economic report for May, released on Tuesday, the Cabinet Office lowered its evaluation of corporate earnings, capital investment and housing construction.
The report says corporate production is falling due partly to disrupted supplies of industrial parts, which is leading to a decline in exports.
The report concluded that the economy is showing continuing signs of weakness, and maintained its April assessment, which was downgraded for the first time in 6 months following the disaster in March.
The government says the ongoing nuclear accident could further increase consumer reluctance to spend and hurt Japan's tourism and retail industries. It adds that overseas fears of radiation may also undermine exports of Japanese farm and industrial products.

Tuesday, May 24, 2011 17:52 +0900 (JST)

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