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 <a href="http://www3.nhk.or.jp/daily/english/society.html">http://www3.nhk.or.jp/daily/english/society.html</a>.

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. 253: 12:00, November 2

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

(Fukushima NPP Site)

- Xenon suggests possible nuclear fission
- **New Example 2** Xenon detected in No.2 reactor

(Other news)

- Japan's Ukraine embassy to study Chernobyl
- Fukushima delegation visiting Chernobyl
- **●**Kyushu Electric restarts reactor
- **●**Belgium to abolish nuclear power

#### Xenon suggests possible nuclear fission

A nuclear energy expert says the presence of xenon in the No.2 reactor leaves open the possibility that localized and temporary fission could still occur. Professor Koji Okamoto of the University of Tokyo Graduate School says substances from melted fuel that could undergo fission are probably scattered around, but are unlikely to react.

He says, however, that neutrons from radioactive materials could react with the uranium fuel and other substances.

Okamoto says a self-sustaining chain reaction that creates criticality is unlikely to happen because huge amounts of boric acid have been poured into the reactor. He adds that these neutrons must be closely monitored to make sure fission does not take place.

The professor also referred to a plan by the government and TEPCO to achieve a state of cold shutdown by the end of the year. He says that if fission reactions are not under control, it would not be a cold shutdown.

Okamoto says TEPCO must locate the melted fuel inside and outside the reactor in order to prevent further reactions.

Wednesday, November 02, 2011 10:24 +0900 (JST)

#### ■ Xenon detected in No.2 reactor

The operator of the Fukushima Daiichi nuclear plant has poured water containing boric acid into the No. 2 reactor.

The move followed the detection of a radioactive substance, xenon, in the reactor's containment vessel, indicating that nuclear fission may have resumed. Tokyo Electric Power Company poured boric acid solution into the No. 2 reactor for one hour from shortly before 3 AM on Wednesday.

Last Friday, TEPCO began operating equipment to remove radioactive substances from the No. 2 reactor.

The device sucks out gas from the containment vessel and filters out radioactive materials. The company has been analyzing the types of radioactive substances and their density near the outlet of the device.

On Tuesday, TEPCO detected xenon-133 and xenon-135, substances that are produced during the nuclear fission of uranium-235. The company says the possibility of nuclear fission inside the reactor cannot be excluded.

TEPCO says even if nuclear fission has resumed, it should be on a small scale as there have been no major changes in the temperature or pressure of the reactor, or radiation levels at monitoring posts around the compound.

The government's Nuclear and Industrial Safety Agency says it is unlikely that nuclear fuel has begun melting again as the density of the xenon is low and there has been no change in the reactor temperatures. The agency says it will continue to monitor the xenon in the reactor.

Wednesday, November 02, 2011 07:27 +0900 (JST)

### ● Japan's Ukraine embassy to study Chernobyl

Japan will expand its embassy in Ukraine to collect information on the country's response to the 1986 Chernobyl nuclear accident.

The information will be utilized in dealing with the aftermath of the nuclear accident at the Fukushima Daiichi nuclear plant.

The embassy will have 6 more workers in addition to the current staff of about 40. New staff will include 2 nuclear specialists and 3 translators of Russian and Ukrainian.

The office building will be expanded and equipped with dosimeters and protective gear.

The embassy staff will interview Ukrainian and former Soviet officials, experts and residents about the effects of lingering radioactive contamination. Ways to manage restricted zones and decontamination methods will also be studied. The Japanese government plans to appropriate about 2 million dollars for the expansion in the fiscal 2012 budget bill.

Wednesday, November 02, 2011 10:39 +0900 (JST)

#### • Fukushima delegation visiting Chernobyl

Local government officials and researchers from Fukushima Prefecture are now in Belarus to learn how residents dealt with radiation from the 1986 Chernobyl nuclear accident.

The delegation comprising about 30 people is on a 6-day trip to the former Soviet republics of Belarus and Ukraine, which were heavily contaminated in the accident.

Yuko Endo, the mayor of Kawauchi Village near the troubled Fukushima Daiichi nuclear plant, is among the members.

On Tuesday, the group met Belarusian Deputy Minister of Emergency Situations Alexander Goncharov. They heard about what decontamination measures have been taken and how the health of local residents is being monitored.

Mayor Endo asked Belarusian officials what local municipalities need to do to prepare for the return of residents to affected areas.

A Belarusian official replied that participation of local residents is indispensable in the policymaking process, and that information needs to be provided for that purpose.

Endo said he wants to speak with people in Belarus about their lives after returning home. For those who cannot return, he said he wants to find out what is standing in the way.

The group is to visit the Chernobyl plant, a hospital where thyroid cancer patients are being treated and other facilities.

Wednesday, November 02, 2011 09:49 +0900 (JST)

### **●**Kyushu Electric restarts reactor

The operator of the Genkai nuclear plant in Kyushu, southwestern Japan, has restarted a reactor that shut down in October due to a procedural error.

Kyushu Electric Power Company said it began removing control rods from the No. 4 reactor at the Genkai plant on Tuesday to resume power generation.

The operator plans to resume generating electricity on Wednesday afternoon. It will gradually increase output and restore it to normal on Friday.

This is the first reactor in Japan to go back on-line since the accident at the Fukushima Daiichi power station.

The No. 4 reactor is scheduled to be shut down again in mid-December for a regular inspection.

Kyushu Electric says it decided to restart the reactor at this time to secure a stable power supply and lower fuel costs.

The utility company says its employees visited households in the town of Genkai where the nuclear plant is located to explain the cause of the trouble and measures to prevent a recurrence of accidents.

The company says it has received a certain level of local consent.

The administration of Genkai Town has agreed to the resumption. But Kyushu Electric has lost credibility with the public because its employees were asked to fake local support for resuming nuclear power generation.

Other local administrations and people living near the plant are demanding a more detailed explanation.

Wednesday, November 02, 2011 01:17 +0900 (JST)

#### Belgium to abolish nuclear power

Belgium has decided to shut down all its nuclear reactors following Japan's nuclear catastrophe in Fukushima Prefecture.

The European nation has 7 nuclear reactors at 2 plants still operating.

6 parties are in the midst of policy discussions to form a new government.

They agreed to draw up the plan for a shutdown of the three oldest nuclear reactors by 2015 and a complete exit by 2025.

They say they will implement the plan after considering alternative energy sources to replace nuclear power, which currently provides over 50 percent of the nation's electricity.

Belgium had been reviewing the economic effects of a law passed to abolish nuclear energy in 2003. The Fukushima nuclear accident influenced the decision to implement the shutdown.

Elsewhere in Europe, Germany and Switzerland renounced the use of nuclear energy, while France and the Netherlands, both major nuclear plant exporters, support its use.

Tuesday, November 01, 2011 04:59 +0900 (JST)

End