Information on the current status of the plants in Japan damaged by the earthquake and the subsequent tsunami on 11 March 2011

Compilation by GRS

as at 14 April 2011, 12:30 h (CEST)

All times local time (JST) unless otherwise indicated

(CET (until 26-03-2011) = JST minus 8 hours)

(CEST (since 27-03-2011) = JST minus 7 hours)

Updated compilation of information

Short description of measures for stabilisation of the plant Fukushima Dai-ichi is given in Chapter 3.

1 Changes compared with the previous state

1.1 Fukushima Dai-ichi

On 13-04-2011 from 08:45 until 13:50 h a floating double-barrier was arranged in front of the water intake buildings of Unit 3 and 4.

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1.1.1 Unit 1

No change.

1.1.2 Unit 2

On 12-04-2011 there began works to close the crack in the wall of the coolant water intake building by means of a metal plate.

On 12-04-2011 at 19:35 h works to pump-off high radioactive water inventory from the pipes and cable channels of the turbine building to the condenser started. On 13-04-2011 works were interrupted for the period from 11:00 until 15:02 to check the tightness of the condenser. After no finding was indicated, the pumping was completed at 17:00 h (TEPCO).

On 13-04-2011 from 13:15 h until 14:55 h fresh water was injected by a provisional motor-driven pump to the fuel pool.

1.1.3 Unit 3

No change.

1.1.4 Unit 4

According to the NHK, TEPCO reported that on 12-04-2011 water sample was taken from the fuel pool by means of an extension arm of the concrete pump. Temperature of about 90 ° C for fuel pool was measured. The level in the fuel pool is 5 m lower than the normal level, which is nevertheless 2 m above the fuel. There was injected about 195 t water. The level reportedly rose by 1 m. On 12-04-2011 water samples were taken from the fuel pool of Unit 4 for a nuclide analysis in order to be capable to estimate the status of the fuel in the fuel pool.

1.1.5 Units 5 and 6

No change.

1.1.6 Interim storage facility at the Fukushima Dai-ichi site

No change.

1.2 Fukushima Dai-ni

TEPCO reports that the aftershocks of 12-04-2011 at 14:07 h of a magnitude 6.3 (with the epicentre in Fukushima-Hama-dori) had no impacts at the site Dai-ni. The related inspections of the site were completed.

Two of the three external power supply lines are in operation; one line is disconnected for the periodic check. An insulator of one of the operated lines was replaced within a short time on 12-04-2011.

1.3 Onagawa 1-3

According to KYODO NEWS, representatives of NISA declared that a seismometer measured vertical accelerations at Unit 1 during the aftershocks on 07-04-2011 that exceeded the design-basis values by about 6 %. The regulator ordered investigation of the impacts of this aftershock on the 3 units.

1.4 Tokai and Higashidori

No change.

2 Radiological situation

2.1 Radiological situation

Radiological situation at the site

The local dose rates were available on 14-04-2011 until 15:00 h. The measurement values for the measuring location „south front central building“ dropped again to

530 µSv/h. The measurement readings for other measuring locations remain constant or show a slightly decreasing trend.

Fig. 1.1 Local dose rate on 14-04-2011

Sea contamination

Contamination values for the sea water are available of the status until 12-04-2011, (for diagrams s. German report, Section 2.3). The measurement readings reveal contamination in particular for iodine-132 well above the limiting values**.**

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Radiological situation in the vicinity

The local dose rate measurement readings in the selected prefectures – like in the previous days – remain constant or decrease on for the prefectures Ibaraki and Kanagawa.

According to the press release of the IAEA of 13-04-2011 the soil samples of 16-03-2011 indicated strontium-89 and strontium-90 with values from. 13 Bq/kg to 260 Bq/kg for Sr-89 and from 3,3 Bq/kg to 32 Bq/kg.for Sr-90 in a village in the prefecture Fukushima. In the meanwhile, the IAEA points out, that the nuclear weapon tests had released Sr-90 into the atmosphere, the evidence of which in the order of some Bq/kg can be found worldwide.

According to the IAEA, in other four villages, Sr-89 in the order of 12 Bq/kg and 61 Bq/kg as well as Sr-90 in the order of 1,8 Bq/kg and 5,9 Bq/kg were detected in plants samples.

Also according to the IAEA, the 55 samples of foodstuffs taken from 08-04-2011 until 12-04-2011 in eight prefectures either did not reveal iodine-131, caesium-134 and cae-

sium-137 or the readings were lower than the allowed values of the Japanese regulator. The samples taken on 11-04-2011 in the prefecture Fukushima revealed iodine-131 in one sample (sandaal) and caesium-134 and caesium-137 in some other samples (spinach) above the allowed values.

External AM

According to the IAEA, the Japanese Prime Minister called on the governor of the prefecture Fukushima, to restrain consumption of shitake mushrooms from Iitate, likewise the marketing of shitake mushrooms from several other areas should be reduced for a while.

Fig**Fehler! Verweisquelle konnte nicht gefunden werden.**, page **Fehler! Textmarke nicht definiert.** (German report) shows the evacuation areas in graphs.

3 Short description of the plant situation

Plant status: Measures for stabilization of the plant status

Fukushima Dai-ichi	Water injection RPV cooling	Water injection Fuel pool cooling	Nitrogen injection into the containment	Pumping-off of the contaminated water from the turbine building
Unit 1	Continuous injection by means of a motor-driven pump by external power supply (motor-driven fire extinguishing pump is in stand-by)	Intermittent injection by a truck-mounted concrete pump (water cannon in stand-by)	since 07.04.2011	Contaminated water inventory in the turbine building and in the pipelines and cable channels impede the necessary works. The contaminated water inventory is pumped into tanks like the condenser or - via the condenser - to the condenser vessels or other tanks for storage and in order to achieve better access to the turbine building.
Unit 2	Continuous injection by means of a motor-driven pump by external power supply (motor-driven fire extinguishing pump is in stand-by)	Intermittent injection by a provisional motor-driven pump via fuel pool purification system (truck-mounted concrete pump and water cannon in stand-by)	planned	Contaminated water inventory in the turbine building and in the pipelines and cable channels impede the necessary works. The contaminated water inventory is pumped into tanks like the condenser or - via the condenser - to the condenser vessels or other tanks for storage and in order to achieve better access to the turbine building.
Unit 3	Continuous injection by means of a motor-driven pump by external power supply (motor-driven fire extinguishing pump is in stand-by)	Intermittent injection by a truck-mounted concrete pump (water cannon in stand-by)	planned	Contaminated water inventory in the turbine building and in the pipelines and cable channels impede the necessary works. The contaminated water inventory is pumped into tanks like the condenser or - via the condenser - to the condenser vessels or other tanks for storage and in order to achieve better access to the turbine building.
Unit 4	Reactor core unloaded	Intermittent injection by a truck-mounted concrete pump (water cannon in stand-by)		
Unit 5	Intermittently by RHR system and provisional auxiliary coolant water pump, external power supply	Intermittently by RHR system and provisional auxiliary coolant water pump, external power supply		
Unit 6	Intermittently by RHR system and provisional auxiliary coolant water pump, external power supply	Intermittently by RHR system and provisional auxiliary coolant water pump, external power supply		

Measures to retain or avoid spread of contamination.

- Almost daily tests to spray resin near the common interim storage facility in the area of about 500 m^2 to 1200 m^2. Resin should bind particles to prevent re-suspension of radioactivity.

- Floating barriers for retaining of contaminated dispersed substances at the coolant water intake.

- Employment of metal plates for sealing of gaps.