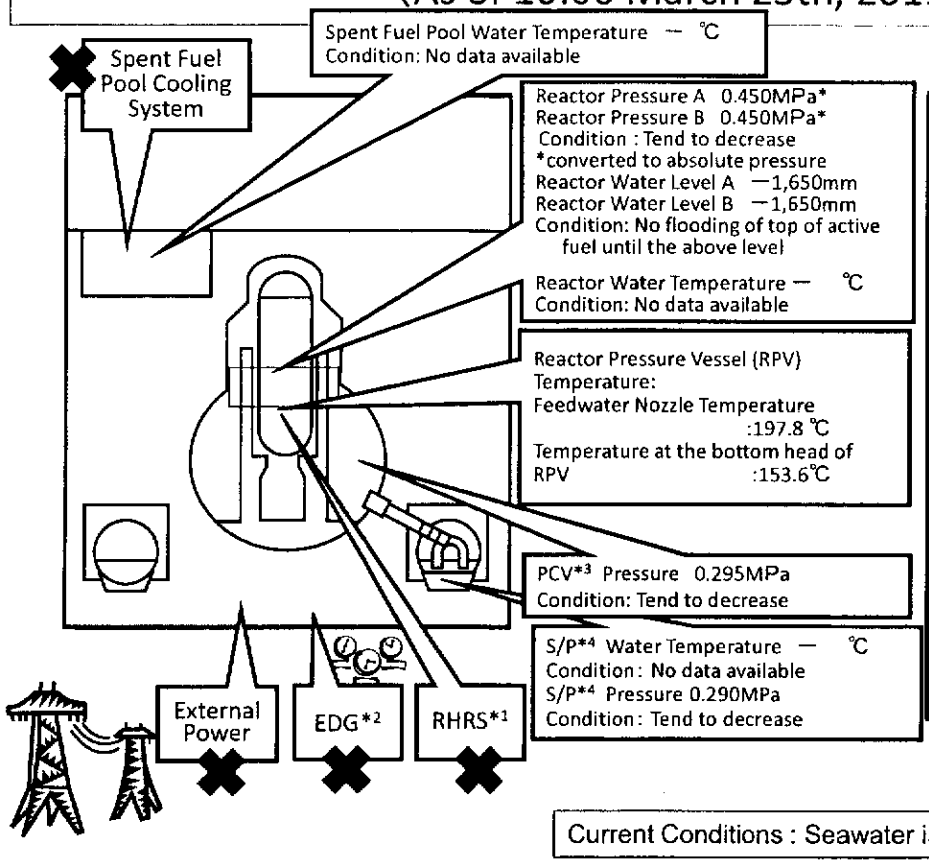
Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 1
(As of 10:00 March 25th, 2011)



Major Events after the earthquake

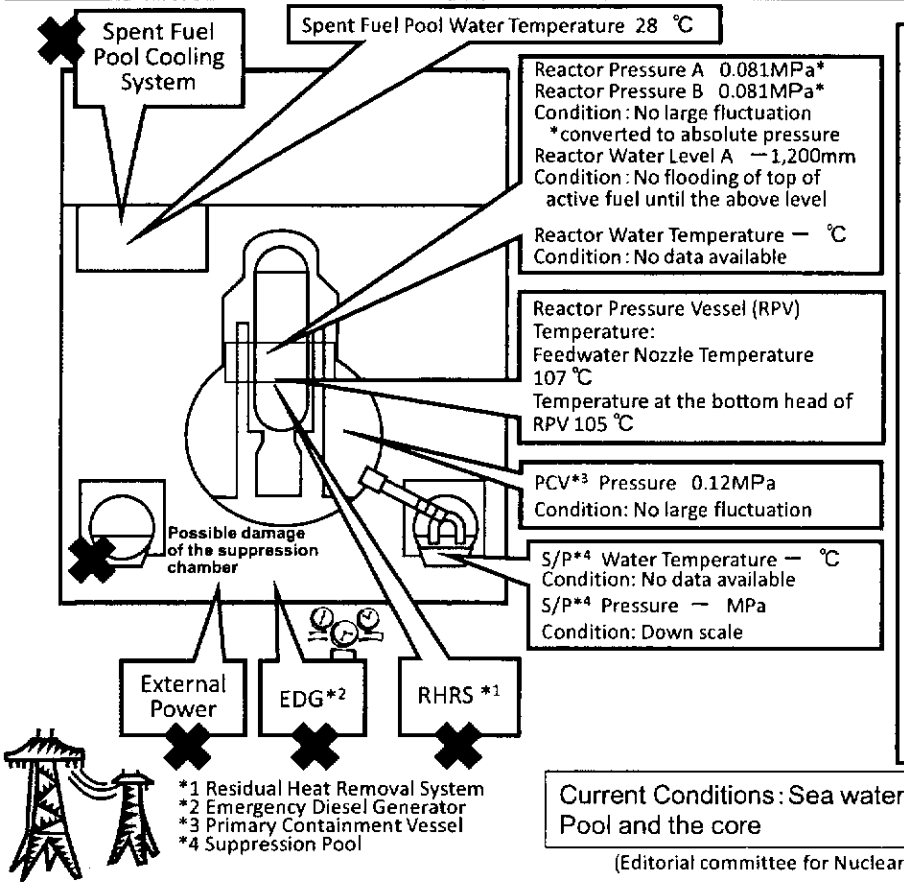
- 11th 14:46 : Under operation, Automatic shutdown by the earthquake
- 11th 15:42 : Report based on the Article 10 (Total loss of A/C power)
- 11th 16:36: Occurrence of the Article 15 event (Inability of water injection of the Emergency Core Cooling System)
- 12th 1:20 Occurrence of the Article 15 event (Unusual rise of the pressure in PCV)
- 12th 10:17 Started to vent
- 12th 15:36 Sound of explosion
- 12th 20:20 Started to inject seawater and borated water to core
- 23rd 02:33 The amount of injected water to the Rector Core was increased utilizing water supply line in addition to the Fire Extinguish line. ($2m^3/h \rightarrow 18m^3/h$)
  09:00 Switched to water supply line only.($18m^3/h \rightarrow 11m^3/h$)
- 24th 11:30 Lightening in the Central Control Room was recovered.

*1 Residual Heat Removal System
*2 Emergency Diesel Generator
*3 Primary Containment Vessel
*4 Suppression Pool

Current Conditions : Seawater is being injected to the core

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 2
(As of 10:00 March 25th, 2011)



Major Events after the earthquake

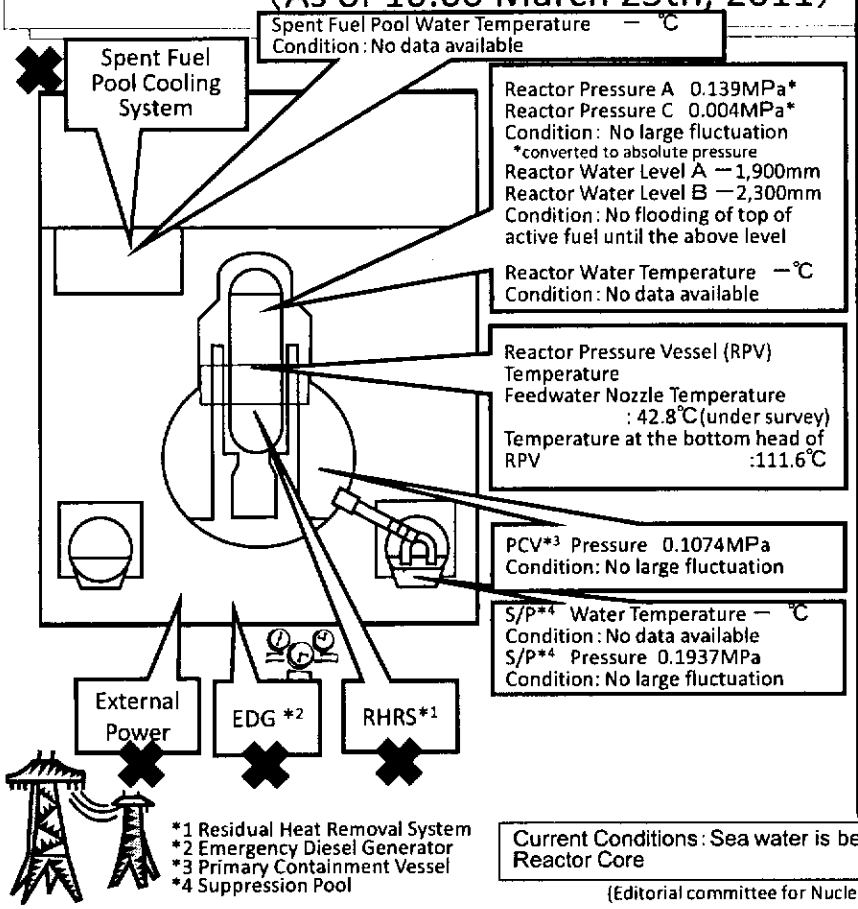
- 11th 14:46 Under operation, Automatic shutdown by the earthquake
- 11th 15:42 Report based on the Article 10 (Total loss of A/C power)
- 11th 16:36 Occurrence of the Article 15 event (Inability of water injection of the Emergency Core Cooling System)
- 13th 11:00 Started to vent
- 14th 13:25 Occurrence of the Article 15 event (Loss of reactor cooling functions)
- 14th 16:34 Started to inject water to the Reactor Core
- 14th 22:50 Occurrence of the Article 15 event (Unusual rise of the pressure in PCV)
- 15th 0:02 Started to vent
- 15th 6:10 Sound of explosion
- 15th around 6:20 Possible damage of the suppression chamber
- 20th 15:05～17:20 Approximately 40 ton seawater injection to the Spent Fuel Pool (SFP) via the Fuel Pool Cooling System (FPC)
- 20th 15:46 Power Center received electricity.
- 21st 18:22 White smoke generated. The smoke died down and almost invisible at 07:11 March 22nd.
- 22nd 16:07 Injection of around 18 tons of seawater to the Spent Fuel Pool
- 25th 10:30~12:19 Seawater injection to SFP via FPC

*1 Residual Heat Removal System
*2 Emergency Diesel Generator
*3 Primary Containment Vessel
*4 Suppression Pool

Current Conditions : Sea water is being injected to Spent Fuel Pool and the core

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 3
(As of 10:00 March 25th, 2011)



*1 Residual Heat Removal System
*2 Emergency Diesel Generator
*3 Primary Containment Vessel
*4 Suppression Pool

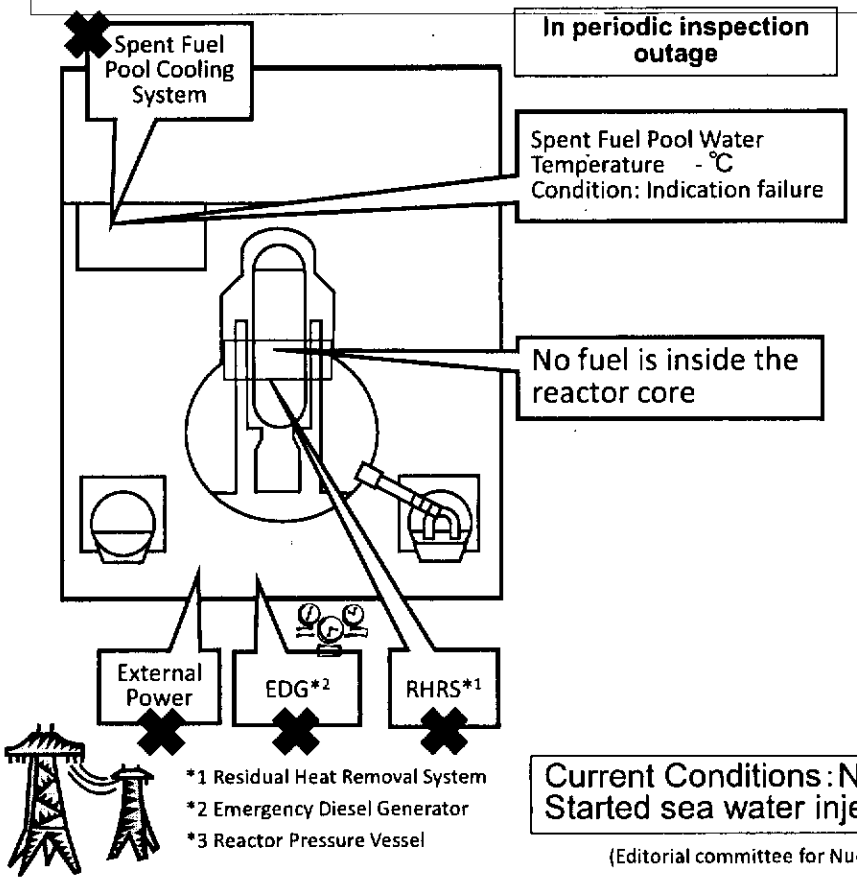
Major Events after the earthquake

11th 14:46 Under operation, Automatic shutdown by the earthquake
11th 5:42 Report based on the Article 10 (Total loss of A/C power)
12th 20:41 Started to vent
13th 5:10 Occurrence of the Article 15 event (Inability of water injection of the Emergency Core Cooling System)
13th 9:20 Started to vent
13th 13:12 Started to inject seawater and borated water to core
14th 5:20 Started to vent
14th 7:44 Occurrence of the Article 15 event (Unusual rise of the pressure in PCV)
14th 11:01 Sound of explosion
16th around 8:30 White smoke generated.
17th 9:48~10:01 Water discharge by the helicopters of Self-Defense Force (4 times)
19:05~20:07 Water spray from the ground by High pressure water-cannon trucks (Police: once, Self-Defense Force: 5 times)
18th before 14:00~14:38 Water spray from the ground by 6 fire engines of Self-Defense Force
~14:45 Water spray from the ground by a fire engine of the US Military
19th 0:30 ~0:50 Water spray by Tokyo Fire Department
19th 14:05 ~ 20th 3:40 Water spray by Tokyo Fire Department
20th 11:00 Pressure of PCV rose(320kPa).Afterward fell.
20th 21:30 ~ 21st 3:58 Water spray by Tokyo Fire Department
21st about 15:55 Grayish smoke generated and was confirmed to be died down at 17:55.
22nd 15:10 ~15:59 Water spray by Tokyo Fire Department
22nd 22:43 Lightening in the Central Control Room was recovered.
23rd 11:03 ~13:20 Injection of about 35ton of sea water to the Spent Fuel Pool (SFP) via the Fuel Pool Cooling System (FPC)
23rd around 16:20 Black smoke generated and was confirmed to died down at around 23:30 and 24th 4:50.
24th 5:35~16:05 Approximately 120 ton sea water injection to SFP via FPC

Current Conditions : Sea water is being injected to Spent Fuel Pool and the Reactor Core

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 4
(As of 10:00 March 25th, 2011)



*1 Residual Heat Removal System
*2 Emergency Diesel Generator
*3 Reactor Pressure Vessel

Major events after the earthquake

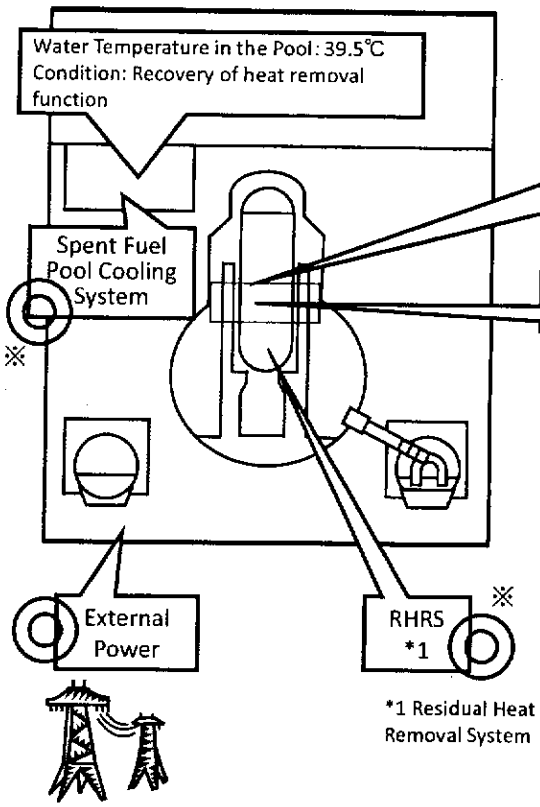
In periodic inspection outage when the earthquake occurred.
11th 15:42 Report based on the Article 10 (Total loss of A/C power)
14th 4:08 Water temperature in the Spent Fuel Pool, 84℃
15th 6:14 Partial damage of wall in the 4th floor confirmed
15th 9:38 Fire occurred in the 3rd floor. (12:25 extinguished)
16th 5:45 Fire occurred. TEPCO couldn't confirm any fire on the ground. (6:15)
20th 8:21~9:40 Water spray over the Spent Fuel Pool (SFP) by Self-Defense Force
20th around 18:30~19:46 Water spray over the Spent Fuel Pool by Self-Defense Force
21st 6:37~8:41 Water spray over the Spent Fuel Pool by Self-Defense Force
21st about 15:00 Work for laying cable to Power Center was completed.
22nd 10:35 Power Center received electricity
22nd 17:17~20:32 Water spray by Concrete Pump Track
23rd 10:00~13:02 Water spray by Concrete Pump Track
24th 14:36~17:30 Water spray by Concrete Pump Track
25th 6:05~10:20 Sea water injection to SFP via the Fuel Pool Cooling System (FPC)

Current Conditions : No fuel is in RPV*3. Started sea water injection to Spent Fuel Pool.

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 5
(As of 10:00 March 25th, 2011)

In periodic inspection outage



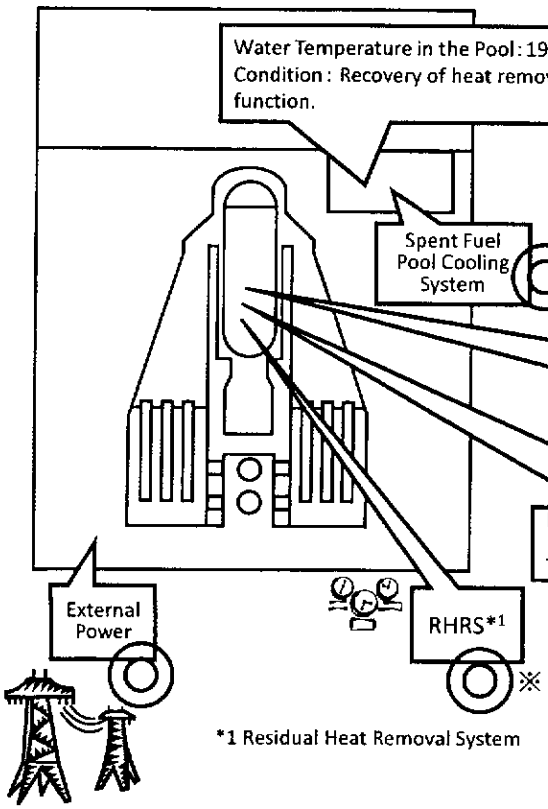
※Heat removal was carried out alternately with the water in the Reactor Core and in the Spent Fuel Pool.

Current Conditions:
Cold shutdown at 14:30 March 20th.
Receiving electricity from external power supply from 11:36 March 21st.
Pump for Residual Heat Removal Seawater System (RHRS) was automatically stopped when the power supply was switched from the temporary to the permanent at 17:24 March 23rd.
Repair of the RHRS pump was completed at 16:14 March 24th.
Cooling started at 16:35 March 24th.

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 6
(As of 10:00 March 25th, 2011)

In periodic inspection outage



Current Conditions:
Cold shutdown at 19:27 March 20th.
Receiving electricity from external power supply from 19:17 March 22nd.

※Heat removal was carried out alternately with the water in the Reactor Core and in the Spent Fuel Pool.

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

Fukushima Di-ichi Nuclear Power Station　Major Parameters of the Plant
(As of 10:00 March 25th)

Unit No.	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Situation of water injection	Injecting seawater via the Water Supply Line. Flow rate of injected water : 113 ℓ/min (As of 21:45 March 24th)	Injecting seawater via the Fire Extinguish Line. Flow rate of injected water : Down scale (10 m^3/hr neighborhood) (permanent measuring instrument) (As of 21:45 March 24th)	Injecting seawater via the Fire Extinguish Line. Flow rate of injected water: Measuring instrument malfunction (permanent measuring instrument) (As of 18:00 March 24th)	Under shutdown	Under shutdown	Under shutdown
Reactor water level	Fuel range A : -1,650mm Fuel range B : -1,650mm (As of 10:00 March 25th)	Fuel range A : -1,200mm (As of 10:00 March 25th)	Fuel range A:-1,900mm Fuel range B:-2,300mm (As of 06:10 March 25th)	--	Shutdown range measurement 2,497mm (As of 10:00 March 25th)	Shutdown range measurement 2,396mm (As of 10:00 March 25th)
Reactor pressure	0.349MPa g(A) 0.349MPa g(B) (As of 10:00 March 25th)	-0.020MPa g (A) -0.020MPa g (B) (As of 10:00 March 25th)	0.038MPa g (A) -0.097MPa g (C) (As of 06:10 March 25th)	--	0.012MPa g (As of 10:00 March 25th)	0.008MPa g (As of 10:00 March 25th)
Reactor water temperature	--			--	77.0℃ (As of 10:00 March 25th)	57.4℃ (As of 10:00 March 25th)
Reactor Pressure Vessel (RPV) temperature	Feedwater nozzle temperature: 197.8℃ Temperature at the bottom head of RPV: 153.6℃ (As of 10:00 March 25th)	Feedwater nozzle temperature: 107℃ Temperature at the bottom head of RPV: 105℃ (As of 10:00 March 25th)	Feedwater nozzle temperature: 42.8℃ (under survey) Temperature at the bottom head of RPV: 111.6℃	No heating element (fuel) inside the reactor	Monitoring by the reactor water temperature	Monitoring by the reactor water temperature

			(As of 06:10 March 25th)			
D/W*1 Pressure, S/C*2 Pressure	D/W: 0.295MPa abs S/C: 0.290MPa abs (As of 10:00 March 25th)	D/W: 0.12MPa abs S/C: Down scale (As of 10:00 March 25th)	D/W: 0.1074MPa abs S/C: 0.1937MPa abs (As of 06:10 March 25th)	—		
CAMS*3	D/W: 3.89×10^{1}Sv/h S/C: 2.49×10^{1}Sv/h (As of 10:00 March 25th)	D/W: 4.56×10^{1}Sv/h S/C: 1.54×10^{0}Sv/h (As of 10:00 March 25th)	D/W: 5.10×10^{1}Sv/h S/C: 1.50×10^{0}Sv/h (As of 06:10 March 25th)	—		
D/W*1 design service pressure	0.384MPa g(0.485MPa abs)	0.384MPa g(0.485MPa abs)	0.384MPa g(0.485MPa abs)	—		
D/W*1 maximum service pressure	0.427MPa g(0.528MPa abs)	0.427MPa g(0.528MPa abs)	0.427MPa g(0.528MPa abs)			
Spent fuel pool water temperature	—	28℃(the reason of decrease :under survey) (As of 10:00 March 25th)	—	Incorrect Indication (As of 11:00 March 24th)	39.5℃ (As of 10:00 March 25th)	19.5℃ (As of 10:00 March 25th)
Power supply	Receiving external power supply (P/C*4 2C)		Receiving external power supply (P/C4D)		Receiving external power supply	
Other information						

*1 D/W : Dry Well

*2 S/C : Suppression Chamber

*3 CAMS : Containment Atmospheric Monitoring System

*4 P/C : Power Center

March 25th, 2011

Fukushima Dai-ichi
Monitoring points

① North side of main office building (approx. 0.5km from Unit 2 in northwest direction)
② Near Gymnasium (East side of MP-5) (approx. 0.9km from Unit 2 in westnorthwest direction)
③ Near West Gate (near MP-5) (approx. 1.1km from Unit 2 in west direction)
④ Front of near Main Gate (near MP-6) (approx. 1.0km from Unit 2 in westnorthwest direction)
⑤ Front of Earthquake Isolation Building (approx. 0.5km from Unit 2 in northwest direction)

Monitoring points	④																							
monitoring car	0:00	0:10	0:20	0:30	0:40	0:50	1:00	1:10	1:20	1:30	1:40	1:50	2:00	2:10	2:20	2:30	2:40	2:50	3:00	3:10	3:20	3:30	3:40	3:50
Reading(μ Sv/h)	199.5	199.3	199.0	199.0	198.9	198.8	198.6	197.7	197.0	196.9	196.5	196.5	196.5	196.4	196.3	196.1	195.9	195.8	195.7	195.7	195.6	195.6	195.5	195.1
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	NW	W	W	W	NW	WNW	W	WSW	W	SW	SW	W	SE	SSW	SSW	W	WSW	W	W	W	W	NW	NW	N
wind speed (m/s)	1.3	0.8	0.8	0.5	0.8	0.7	1.0	0.7	0.5	0.5	0.6	0.6	0.5	0.5	0.7	0.5	0.5	0.7	1.0	1.0	0.8	1.8	1.1	1.0

Monitoring points	④																							
monitoring car	4:00	4:10	4:20	4:30	4:40	4:50	5:00	5:10	5:20	5:30	5:40	5:50	6:00	6:10	6:20	6:30	6:40	6:50	7:00	7:10	7:20	7:30	7:40	7:50
Reading(μ Sv/h)	195.1	195.0	195.0	195.0	194.5	194.5	194.4	194.4	194.3	194.2	194.1	193.8	193.8	193.6	193.0	192.9	193.0	192.5	192.6	192.5	192.7	192.3	192.5	193.3
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	W	NW	NW	NNW	N	N	WNW	NNW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	W	NW	W	NNW	NNW	NNW	NNW	N
wind speed (m/s)	0.8	1.7	1.2	1.1	0.9	0.8	0.9	0.8	0.9	0.9	1.8	1.6	1.5	1.0	1.1	0.9	1.0	1.1	0.9	0.9	0.8	1.1	1.3	1.2

Monitoring points	④																							
monitoring car	8:00	8:10	8:20	8:30	8:40	8:50	9:00	9:10	9:20	9:30	9:40	9:50	10:00	10:10	10:20	10:30	10:40	10:50	11:00	11:10	11:20	11:30	11:40	11:50
Reading(μ Sv/h)	193.8	193.9	193.3	196.3																				
neutron	N.D	N.D	N.D	N.D																				
wind direction	NNW	N	N	N																				
wind speed (m/s)	1.0	1.3	1.6	1.1																				

Monitoring points	④																							
monitoring car	12:00	12:10	12:20	12:30	12:40	12:50	13:00	13:10	13:20	13:30	13:40	13:50	14:00	14:10	14:20	14:30	14:40	14:50	15:00	15:10	15:20	15:30	15:40	15:50
Reading(μ Sv/h)																								
neutron																								
wind direction																								
wind speed (m/s)																								

Monitoring points	④																							
monitoring car	16:00	16:10	16:20	16:30	16:40	16:50	17:00	17:10	17:20	17:30	17:40	17:50	18:00	18:10	18:20	18:30	18:40	18:50	19:00	19:10	19:20	19:30	19:40	19:50
Reading(μ Sv/h)																								
neutron																								
wind direction																								
wind speed (m/s)																								

Monitoring points	④																							
monitoring car	20:00	20:10	20:20	20:30	20:40	20:50	21:00	21:10	21:20	21:30	21:40	21:50	22:00	22:10	22:20	22:30	22:40	22:50	23:00	23:10	23:20	23:30	23:40	23:50
Reading(μ Sv/h)																								
neutron																								
wind direction																								
wind speed (m/s)																								

March 24th, 2011

Fukushima Dai-ichi
Monitoring points

① North side of main office building(approx. 0.5km from Unit 2 in northwest direction)
② Near Gymnasium(East side of MP-5) (approx. 0.9km from Unit 2 in westnorthwest direction)
③ Near West Gate (near MP-5) (approx. 1.1km from Unit 2 in west direction)
④ Front of near Main Gate (near MP-6) (approx. 1.0km from Unit 2 in westnorthwest direction)
⑤ Front of Earthquake Isolation Building (approx. 0.5km from Unit 2 in northwest direction)

Monitoring points	④																							
monitoring car	0:00	0:10	0:20	0:30	0:40	0:50	1:00	1:10	1:20	1:30	1:40	1:50	2:00	2:10	2:20	2:30	2:40	2:50	3:00	3:10	3:20	3:30	3:40	3:50
Reading(μSv/h)	222.3	222.0	221.8	221.5	221.7	221.0	220.6	220.4	220.0	219.7	219.2	219.2	218.9	218.7	217.5	217.2	216.8	216.6	216.6	216.5	216.2	215.5	215.7	215.4
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	NW	S	N	W	WNW	WNW	WNW	WNW	NW	N	NW	W	WNW	WNW	WNW	WNW	W	WSW	W	WSW	SW	SW	W	W
wind speed (m/s)	0.3	0.4	0.5	1.2	1.3	1.4	1.6	1.6	1.3	0.8	0.6	0.8	1.3	1.7	1.6	1.2	1.0	0.5	1.0	0.9	0.6	0.7	0.9	1.0

Monitoring point	④																							
Monitaring car	4:00	4:10	4:20	4:30	4:40	4:50	5:00	5:10	5:20	5:30	5:40	5:50	6:00	6:10	6:20	6:30	6:40	6:50	7:00	7:10	7:20	7:30	7:40	7:50
Reading(μSv/h)	215.1	215.0	214.7	214.5	214.7	214.3	214.4	214.0	213.6	213.8	216.2	213.6	212.8	212.8	214.7	230.9	213.7	212.3	212.2	212.0	211.8	211.9	211.9	211.7
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wing direction	WNW	N	S	N	NNW	W	SE	SSE	S	ESE	SW	W	N	N	SSE	ESE	WSW	WNW	NW	W	W	SE	S	S
wind speed(m/s)	0.5	0.6	0.3	0.2	1.2	1.2	0.9	0.7	0.6	0.8	0.8	0.7	0.4	0.7	0.5	0.8	0.7	0.7	0.9	1.1	0.8	1.2	1.0	0.8

Monitoring point	④																							
Monitaring car	8:00	8:10	8:20	8:30	8:40	8:50	9:00	9:10	9:20	9:30	9:40	9:50	10:00	10:10	10:20	10:30	10:40	10:50	11:00	11:10	11:20	11:30	11:40	11:50
Reading(μSv/h)	211.6	211.6	211.6	211.2	211.5	211.1	210.1	210.8	210.8	210.7	210.6	210.5	210.1	210.0	209.7	209.7	209.5	209.6	209.3	209.2	209.5	209.5	209.6	209.1
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wing direction	SW	S	S	SE	SE	SE	SE	ESE	SE	ESE	SSE	SE	SE	SE	SSE	ESE	SE	SE	S	S	ESE	S	ESE	SSE
wind speed(m/s)	0.8	1.2	1.2	1.7	1.7	1.5	1.8	2.5	2.2	2.5	2.3	2.2	2.6	2.7	2.4	2.7	2.4	2.8	2.5	2.8	2.7	2.5	2.7	2.9

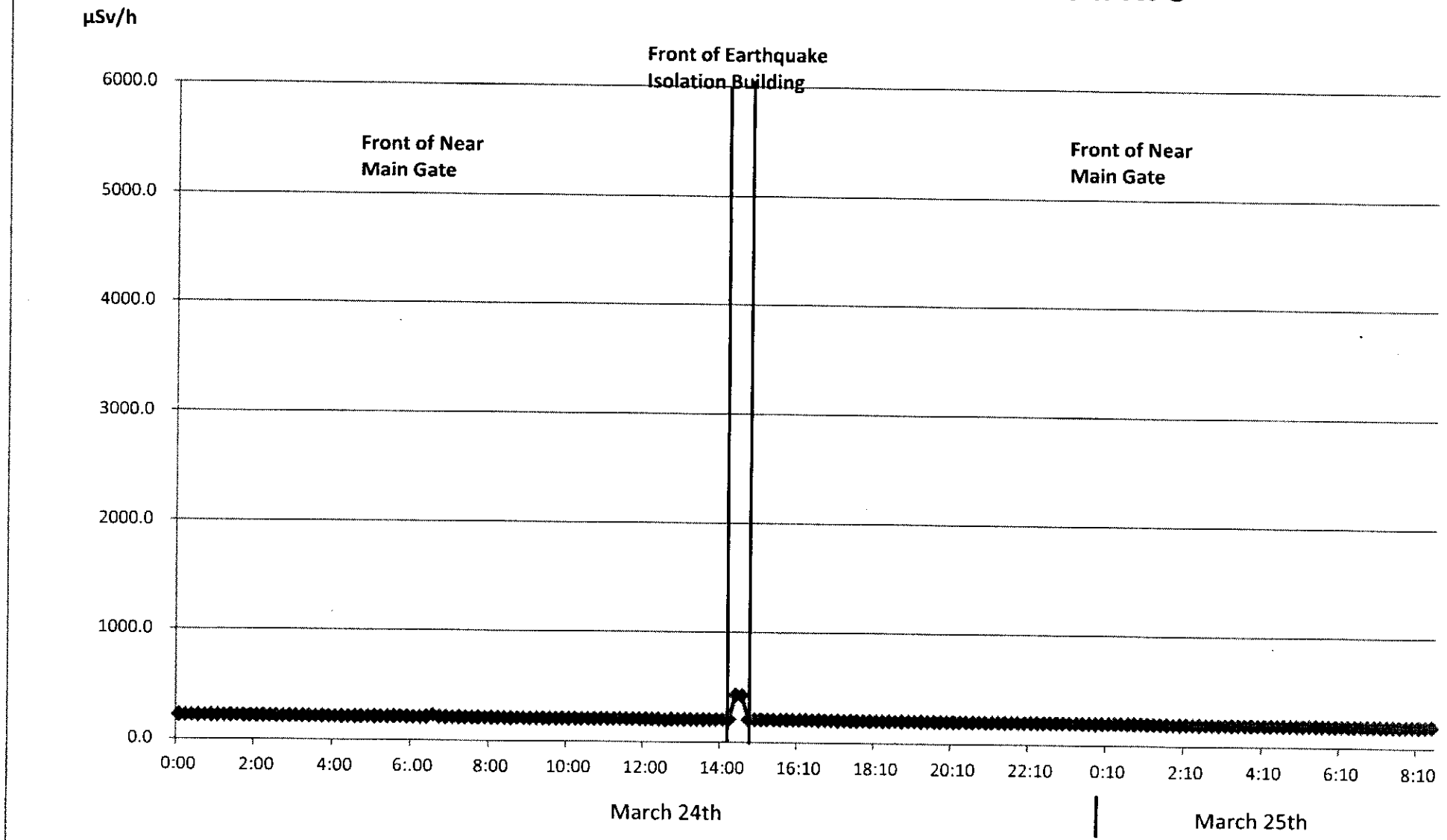
Monitoring point	④														⑤		④						
Monitaring car	12:00	12:10	12:20	12:30	12:40	12:50	13:00	13:10	13:20	13:30	13:40	13:50	14:00	14:10	14:20	14:30	14:50	15:00	15:10	15:20	15:30	15:40	15:50
Reading(μSv/h)	209.4	209.4	209.2	201.1	208.8	208.7	208.1	207.9	207.5	207.5	207.2	209.3	209.0	208.5	429.5	427.0	210.0	209.8	209.4	209.2	208.8	208.0	207.6
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wing direction	S	SE	SE	S	S	ESE	SE	S	S	SE	S	SE	SE	SE	S	S	S	SE	SE	S	S	S	S
wind speed(m/s)	3.0	3.0	2.8	2.5	3.1	3.2	3.1	3.7	3.7	3.1	4.2	3.1	4.1	4.0	2.3	1.4	5.8	4.5	4.4	4.3	4.3	3.8	4.3

④→⑤→④ Front of Earthquake Isolation Building(approx. 0.5km from Unit 2 in northwest direction) ※Temporarily Transferred for the Dust Analysis

Monitoring point	④																							
Monitaring car	16:00	16:10	16:20	16:30	16:40	16:50	17:00	17:10	17:20	17:30	17:40	17:50	18:00	18:10	18:20	18:30	18:40	18:50	19:00	19:10	19:20	19:30	19:40	19:50
Reading(μSv/h)	207.4	207.3	207.1	207.0	206.9	206.5	206.4	206.3	206.1	206.0	205.6	205.3	204.6	204.9	204.7	204.5	204.4	204.4	204.3	204.2	203.9	203.5	203.0	202.9
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wing direction	SE	S	S	S	S	SE	SE	S	SW	S	S	S	S	SSE	W	WSW	W	W	WSW	W	WNW	NW	W	W
wind speed(m/s)	4.5	4.0	3.6	4.3	3.2	2.5	1.8	1.7	1.3	1.3	1.7	1.4	1.3	1.0	0.5	0.6	0.6	0.8	1.0	0.7	1.0	1.3	1.4	1.4

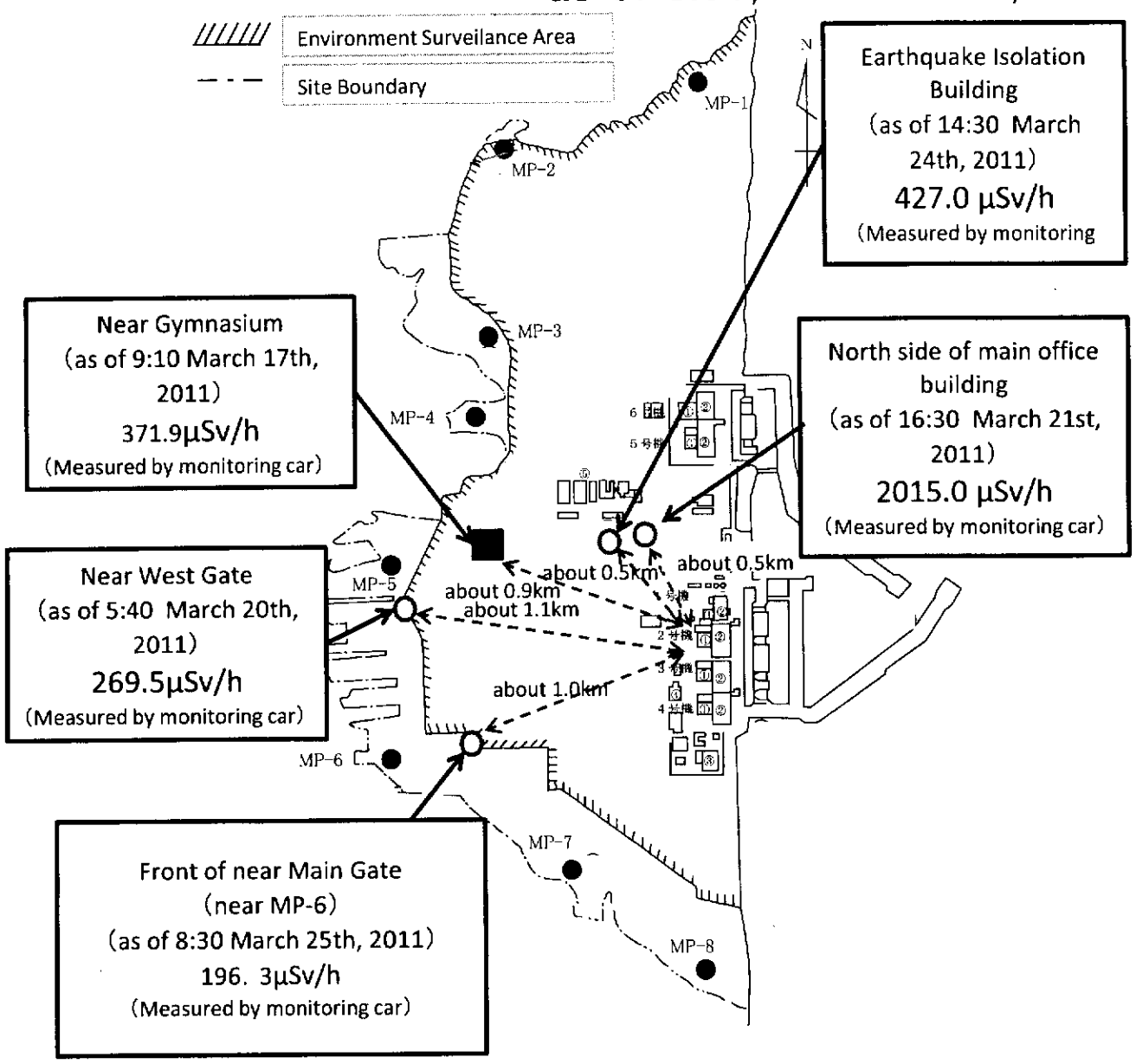
Monitoring point	④																							
Monitaring car	20:00	20:10	20:20	20:30	20:40	20:50	21:00	21:10	21:20	21:30	21:40	21:50	22:00	22:10	22:20	22:30	22:40	22:50	23:00	23:10	23:20	23:30	23:40	23:50
Reading(μSv/h)	202.9	202.6	202.5	202.4	202.4	202.2	202.0	202.0	201.7	201.4	201.3	201.3	201.2	201.1	201.2	200.5	200.6	200.4	200.2	199.9	200.0	199.8	199.8	199.6
neutron	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wing direction	NW	WNW	WNW	W	W	WNW	NW	NW	NNW	NW	N	W	WNW	NNW	NW	WNW	WNW	NW	WNW	WNW	NW	NNW	NW	NW
wind speed(m/s)	0.8	0.7	1.6	0.9	0.7	1.2	1.2	1.0	0.8	0.4	0.8	0.6	0.7	0.5	0.9	1.5	1.2	1.0	1.6	1.5	1.1	1.3	0.9	0.9

Dose rate measured in Fukushima Dai-ichi NPS



Fukushima Dai－ichi NPS

as of 8:30, March 25th, 2011



Fukushima Dai-ni (TEPCO's Monitoring Post)

2011/3/24

March 25th, 2011																								
Monitoring Posts	0:00	0:10	0:20	0:30	0:40	0:50	1:00	1:10	1:20	1:30	1:40	1:50	2:00	2:10	2:20	2:30	2:40	2:50	3:00	3:10	3:20	3:30	3:40	3:50
MP1(μSv/h)	12.297	12.297	12.280	12.287	12.277	12.227	12.247	12.217	12.220	12.200	12.237	12.210	12.190	12.177	12.170	12.203	12.173	12.120	12.133	12.143	12.097	12.133	12.100	12.077
MP2(μSv/h)	7.220	7.217	7.213	7.187	7.193	7.183	7.173	7.170	7.183	7.167	7.150	7.177	7.173	7.180	7.140	7.150	7.143	7.113	7.133	7.137	7.113	7.100	7.097	7.113
MP3(μSv/h)	11.890	11.933	11.887	11.887	11.890	11.887	11.847	11.853	11.843	11.847	11.867	11.827	11.840	11.803	11.857	11.810	11.760	11.770	11.753	11.810	11.783	11.750	11.760	11.683
MP4(μSv/h)	9.293	9.307	9.307	9.297	9.277	9.230	9.240	9.267	9.213	9.247	9.200	9.200	9.207	9.203	9.200	9.180	9.173	9.197	9.133	9.183	9.180	9.143	9.130	9.127
MP5(μSv/h)	8.627	8.627	8.627	8.627	8.627	8.627	8.627	8.627	8.627	8.627	8.627	8.627	8.613	8.627	8.567	8.533	8.533	8.533	8.533	8.527	8.533	8.533	8.493	8.533
MP6(μSv/h)	9.877	9.827	9.870	9.823	9.803	9.800	9.823	9.820	9.803	9.827	9.793	9.803	9.783	9.743	9.777	9.757	9.767	9.717	9.727	9.733	9.713	9.727	9.700	9.697
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Wind direction	WNW	WNW	WNW	WNW	SW	SSW	SSW	SSE	SSW	SSE	E	NNW	NW	NNW	N	N	N	N	N	NNW	NNW	NNW	NNW	NNW
Wind speed(m/s)	4.7	4.4	3.4	1.9	2.5	2.8	1.9	0.9	0.9	0.8	0.4	0.9	3.9	4.1	2.4	2.2	3.0	2.6	2.6	3.3	3.7	4.7	5.2	3.6

March 25th, 2011																								
monitoring point	4:00	4:10	4:20	4:30	4:40	4:50	5:00	5:10	5:20	5:30	5:40	5:50	6:00	6:10	6:20	6:30	6:40	6:50	7:00	7:10	7:20	7:30	7:40	7:50
MP1(μSv/h)	12.087	12.093	12.070	12.087	12.043	12.033	12.067	12.020	12.033	13.777	12.993	18.173	12.717	13.137	13.803	12.203	12.093	12.067	12.040	12.010	12.047	12.010	12.013	12.013
MP2(μSv/h)	7.090	7.093	7.077	7.080	7.060	7.063	7.067	7.030	7.053	7.290	7.293	10.597	7.447	7.297	7.153	7.070	7.057	7.040	7.007	6.997	7.027	7.003	6.983	7.040
MP3(μSv/h)	11.677	11.680	11.677	11.667	11.680	11.690	11.687	11.647	11.710	11.660	11.670	11.663	12.203	11.687	11.657	11.613	11.640	11.610	11.550	11.573	11.543	11.567	11.543	11.540
MP4(μSv/h)	9.113	9.133	9.090	9.090	9.087	9.107	9.073	9.067	9.060	9.057	9.063	9.077	10.970	9.577	9.183	9.173	9.147	9.110	9.143	9.120	9.117	9.093	9.057	9.073
MP5(μSv/h)	8.533	8.480	8.447	8.473	8.473	8.473	8.433	8.433	8.433	8.427	8.433	8.433	10.520	9.407	8.720	8.667	8.627	8.627	8.567	8.560	8.527	8.533	8.533	8.500
MP6(μSv/h)	9.717	9.670	9.683	9.663	9.633	9.660	9.667	9.667	9.623	9.620	9.613	9.640	11.540	10.490	9.743	9.667	9.643	9.607	9.617	9.567	9.593	9.607	9.570	9.557
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	NW	NNW	NNW	NW	NW	NW	NW	NW	N	NNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NW	NW	NNW	NNW
wind speed (m/s)	4.3	5.0	5.1	5.7	6.1	6.3	5.5	1.1	1.1	2.1	4.0	2.5	2.2	2.0	2.6	2.5	2.2	2.5	2.2	3.3	3.5	3.6	3.5	3.3

March 25th, 2011																								
monitoring point	8:00	8:10	8:20	8:30	8:40	8:50	9:00	9:10	9:20	9:30	9:40	9:50	10:00	10:10	10:20	10:30	10:40	10:50	11:00	11:10	11:20	11:30	11:40	11:50
MP1(μSv/h)	12.040	18.670	21.737	24.850																				
MP2(μSv/h)	7.020	9.087	14.597	21.447																				
MP3(μSv/h)	11.567	11.663	15.243	17.277																				
MP4(μSv/h)	9.047	9.083	12.067	13.833																				
MP5(μSv/h)	8.527	8.533	10.887	14.713																				
MP6(μSv/h)	9.547	9.570	11.673	13.677																				
MP7(μSv/h)	N.D	N.D	N.D	N.D																				
wind direction	N	N	N	NNW																				
wind speed (m/s)	3.5	2.3	2.2	3.6																				

Fukushima Dai-ni (TEPCO's Monitoring Post)

W: West E: East S: South N: North

March 24th, 2011																								
monitoring point	12:00	12:10	12:20	12:30	12:40	12:50	13:00	13:10	13:20	13:30	13:40	13:50	14:00	14:10	14:20	14:30	14:40	14:50	15:00	15:10	15:20	15:30	15:40	15:50
MP1(μSv/h)	12.887	12.873	12.870	12.660	12.827	12.880	12.793	12.830	12.837	12.800	12.757	12.763	12.803	12.770	12.767	12.767	12.777	12.767	12.757	12.733	12.713	12.680	12.680	12.647
MP2(μSv/h)	7.603	7.593	7.587	7.587	7.597	7.583	7.573	7.570	7.567	7.560	7.577	7.530	7.547	7.533	7.510	7.557	7.543	7.487	7.517	7.520	7.510	7.480	7.510	7.493
MP3(μSv/h)	12.497	12.493	12.550	12.510	12.470	12.513	12.433	12.443	12.467	12.470	12.423	12.390	12.407	12.383	12.390	12.403	12.357	12.357	12.353	12.360	12.327	12.310	12.340	12.307
MP4(μSv/h)	9.737	9.723	9.723	9.717	9.697	9.720	9.693	9.677	9.683	9.693	9.660	9.653	9.660	9.657	9.647	9.640	9.617	9.640	9.613	9.653	9.573	9.577	9.560	9.587
MP5(μSv/h)	9.113	9.167	9.120	9.113	9.120	9.113	9.120	9.120	9.120	9.113	9.113	9.020	9.047	9.020	9.020	9.020	9.020	9.020	9.020	9.020	9.020	9.013	9.020	9.020
MP6(μSv/h)	10.337	10.343	10.277	10.287	10.273	10.280	10.280	10.270	10.257	10.257	10.263	10.257	10.253	10.263	10.280	10.240	10.233	10.243	10.230	10.203	10.217	10.213	10.217	10.190
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	SSE	SSE	SSE	S	SSE	SSE	SSE	S	S	S	S	S	S	S	S
wind speed (m/s)	6.9	6.8	6.5	7.2	8.6	8.5	7.4	6.5	9.3	7.8	8.6	9.4	10.7	9.9	9.5	10.2	10.1	10.2	8.5	9.4	10.3	11.3	10.1	10.5

March 24th, 2011																								
monitoring point	16:00	16:10	16:20	16:30	16:40	16:50	17:00	17:10	17:20	17:30	17:40	17:50	18:00	18:10	18:20	18:30	18:40	18:50	19:00	19:10	19:20	19:30	19:40	19:50
MP1(μSv/h)	12.663	12.700	12.663	12.673	12.630	12.620	12.573	12.583	12.573	12.557	12.577	12.557	12.533	12.510	12.553	12.547	12.567	12.533	12.543	12.533	12.497	12.497	12.520	12.470
MP2(μSv/h)	7.480	7.457	7.443	7.487	7.453	7.430	7.440	7.457	7.433	7.437	7.433	7.417	7.400	7.393	7.383	7.383	7.390	7.403	7.377	7.363	7.370	7.370	7.340	7.340
MP3(μSv/h)	12.337	12.277	12.287	12.293	12.290	12.280	12.263	12.203	12.227	12.203	12.270	12.167	12.220	12.153	12.183	12.133	12.177	12.130	12.167	12.140	12.153	12.167	12.177	12.143
MP4(μSv/h)	9.590	9.567	9.563	9.553	9.553	9.553	9.530	9.543	9.560	9.533	9.550	9.500	9.530	9.513	9.530	9.503	9.527	9.467	9.443	9.467	9.463	9.447	9.450	9.480
MP5(μSv/h)	8.993	8.920	8.940	8.920	8.953	8.913	8.920	8.920	8.920	8.920	8.913	8.920	8.867	8.920	8.920	8.880	8.873	8.873	8.853	8.820	8.827	8.820	8.827	8.820
MP6(μSv/h)	10.143	10.177	10.160	10.143	10.137	10.143	10.123	10.103	10.120	10.093	10.117	10.143	10.127	10.090	10.100	10.067	10.073	10.087	10.057	10.077	10.067	10.047	10.060	10.037
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	S	S	S	S	S	S	S	S	S	SSW	SSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	W	WNW	NW	WNW	NW	NW
wind speed (m/s)	9.4	8.3	6.3	4.8	6.4	4.1	7.2	7.5	7.8	5.8	2.6	1.5	1.6	4.1	4.2	4.2	3.9	4.4	4.0	4.0	4.1	3.6	3.8	4.4

March 24th, 2011																								
monitoring point	20:00	20:10	20:20	20:30	20:40	20:50	21:00	21:10	21:20	21:30	21:40	21:50	22:00	22:10	22:20	22:30	22:40	22:50	23:00	23:10	23:20	23:30	23:40	23:50
MP1(μSv/h)	12.510	12.427	12.457	12.480	12.477	12.450	12.447	12.440	12.417	12.433	12.373	12.403	12.387	12.387	12.367	12.387	12.360	12.383	12.343	12.357	12.320	12.303	12.317	12.287
MP2(μSv/h)	7.333	7.373	7.340	7.350	7.313	7.303	7.333	7.307	7.303	7.277	7.283	7.283	7.303	7.277	7.283	7.290	7.253	7.247	7.247	7.253	7.213	7.257	7.220	7.217
MP3(μSv/h)	12.113	12.053	12.093	12.067	12.123	12.057	12.090	12.053	12.067	12.020	12.023	12.040	12.027	12.020	12.037	12.027	11.993	11.920	11.977	11.943	11.957	11.947	11.940	11.900
MP4(μSv/h)	9.467	9.460	9.463	9.420	9.410	9.410	9.397	9.423	9.407	9.390	9.377	9.407	9.380	9.383	9.357	9.373	9.350	9.347	9.310	9.360	9.333	9.307	9.287	9.317
MP5(μSv/h)	8.820	8.820	8.820	8.820	8.827	8.820	8.793	8.727	8.753	8.720	8.740	8.720	8.720	8.727	8.720	8.727	8.727	8.720	8.720	8.720	8.653	8.627	8.720	8.673
MP6(μSv/h)	10.060	10.017	10.003	10.010	9.960	10.000	10.007	9.987	9.993	9.973	9.960	9.927	9.973	9.930	9.947	9.937	9.913	9.907	9.900	9.890	9.900	9.863	9.873	9.883
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	NNW	NNW	NNW	NNW	NNW	NNW	N	N	N	NNW	NNW	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	NW	NW
wind speed (m/s)	4.7	4.4	5.1	5.8	6.7	7.1	4.7	4.4	4.8	4.8	3.0	5.0	5.0	5.5	4.9	6.0	5.4	5.6	4.0	3.1	4.2	3.3	3.8	3.9

Fukushima Dai-ni (TEPCO's Monitoring Post)

2011/3/24

March 24th, 2011																								
Monitoring Posts	0:00	0:10	0:20	0:30	0:40	0:50	1:00	1:10	1:20	1:30	1:40	1:50	2:00	2:10	2:20	2:30	2:40	2:50	3:00	3:10	3:20	3:30	3:40	3:50
MP1(μSv/h)	13.693	13.730	13.647	13.653	13.610	13.613	13.583	13.630	13.580	13.600	13.527	13.540	13.540	13.473	13.480	13.513	13.497	13.487	13.473	13.427	13.393	13.410	13.417	13.337
MP2(μSv/h)	8.103	8.047	8.117	8.117	8.070	8.080	8.050	8.007	8.047	8.027	8.017	8.040	7.997	7.993	7.973	7.967	7.987	7.987	7.973	7.967	7.943	7.927	7.920	7.927
MP3(μSv/h)	13.350	13.320	13.300	13.323	13.287	13.257	13.257	13.207	13.230	13.217	13.257	13.177	13.160	13.127	13.097	13.143	13.103	13.107	13.123	13.120	13.087	13.017	13.073	13.037
MP4(μSv/h)	10.477	10.460	10.460	10.463	10.420	10.443	10.433	10.403	10.410	10.377	10.403	10.390	10.347	10.350	10.323	10.327	10.303	10.263	10.267	10.297	10.250	10.277	10.267	10.250
MP5(μSv/h)	9.827	9.800	9.800	9.800	9.800	9.800	9.700	9.800	9.747	9.700	9.700	9.693	9.720	9.700	9.700	9.700	9.680	9.600	9.653	9.607	9.600	9.600	9.607	9.600
MP6(μSv/h)	11.013	11.017	10.940	10.970	10.943	10.927	10.910	10.917	10.940	10.863	10.860	10.860	10.827	10.827	10.853	10.837	10.797	10.810	10.750	10.770	10.773	10.747	10.690	10.740
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Wind direction	NW	WNW	NW	WNW	WNW	WNW	NW	NNW	NNW	NNW	NW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NW	WNW
Wind speed(m/s)	5.0	3.6	3.0	3.0	5.3	6.9	4.7	4.1	3.8	2.8	2.9	4.6	3.2	1.8	4.1	4.4	3.7	3.1	2.6	2.0	3.0	3.2	2.6	3.4

March 24th, 2011																								
monitoring point	4:00	4:10	4:20	4:30	4:40	4:50	5:00	5:10	5:20	5:30	5:40	5:50	6:00	6:10	6:20	6:30	6:40	6:50	7:00	7:10	7:20	7:30	7:40	7:50
MP1(μSv/h)	13.407	13.360	13.367	13.323	13.353	13.303	13.307	13.323	13.283	13.253	13.253	13.237	13.240	13.193	13.257	13.240	13.200	13.177	13.210	13.200	13.143	13.127	13.163	13.157
MP2(μSv/h)	7.913	7.897	7.883	7.880	7.900	7.873	7.860	7.837	7.837	7.833	7.827	7.790	7.823	7.810	7.843	7.803	7.757	7.807	7.777	7.793	7.770	7.777	7.763	7.723
MP3(μSv/h)	13.023	13.013	13.007	12.997	12.967	12.947	12.978	12.987	12.957	12.923	12.963	12.923	12.950	12.880	12.857	12.883	12.897	12.867	12.817	12.823	12.847	12.810	12.807	12.810
MP4(μSv/h)	10.230	10.230	10.227	10.230	10.170	10.187	10.190	10.153	10.133	10.193	10.143	10.133	10.100	10.127	10.093	10.110	10.100	10.053	10.053	10.037	10.050	10.050	10.040	10.023
MP5(μSv/h)	9.600	9.607	9.580	9.547	9.547	9.600	9.507	9.500	9.507	9.507	9.507	9.507	9.427	9.507	9.400	9.407	9.407	9.407	9.407	9.407	9.407	9.407	9.407	9.407
MP6(μSv/h)	10.717	10.727	10.687	10.677	10.680	10.650	10.667	10.640	10.650	10.630	10.603	10.603	10.617	10.610	10.560	10.587	10.560	10.560	10.527	10.540	10.553	10.523	10.510	10.517
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	NW	NW	NW	N	NW	W	NNW	S	SW	SW	SW	SSW	WSW	W	WNW	WNW	N	NNW	W	W	W	SSW	SW	SSW
wind speed (m/s)	3.3	2.4	1.9	1.9	1.1	0.6	0.1	0.4	1.2	1.9	2.2	1.9	2.7	1.1	1.0	1.2	0.4	0.4	3.0	9.4	3.3	0.6	2.1	1.9

March 24th, 2011																								
monitoring point	8:00	8:10	8:20	8:30	8:40	8:50	9:00	9:10	9:20	9:30	9:40	9:50	10:00	10:10	10:20	10:30	10:40	10:50	11:00	11:10	11:20	11:30	11:40	11:50
MP1(μSv/h)	13.127	13.137	13.137	13.093	13.080	13.073	13.067	13.087	13.060	13.047	12.980	12.990	12.967	13.000	12.957	12.997	12.973	12.957	12.983	12.940	12.930	12.903	12.930	12.883
MP2(μSv/h)	7.747	7.753	7.750	7.740	7.743	7.733	7.697	7.707	7.720	7.680	7.710	7.680	7.677	7.643	7.637	7.650	7.647	7.670	7.617	7.630	7.620	7.590	7.600	7.610
MP3(μSv/h)	12.810	12.737	12.773	12.730	12.710	12.723	12.707	12.693	12.670	12.660	12.653	12.650	12.667	12.620	12.617	12.613	12.627	12.577	12.527	12.547	12.570	12.567	12.540	12.523
MP4(μSv/h)	10.013	10.007	9.980	9.967	9.983	9.960	9.963	9.923	9.960	9.907	9.880	9.903	9.873	9.850	9.813	9.863	9.847	9.827	9.823	9.817	9.790	9.783	9.753	9.797
MP5(μSv/h)	9.407	9.313	9.380	9.313	9.320	9.313	9.313	9.313	9.313	9.313	9.260	9.267	9.287	9.267	8.647	8.820	9.167	9.213	9.213	9.180	9.147	9.173	9.147	9.113
MP6(μSv/h)	10.497	10.490	10.470	10.480	10.453	10.463	10.437	10.447	10.420	10.407	10.427	10.410	10.427	10.393	10.350	10.427	10.373	10.380	10.343	10.297	10.333	10.347	10.337	10.330
MP7(μSv/h)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
wind direction	SW	SSW	SSW	S	SE	SE	SE	S	SSE	S	SSE	SSE	SE	SE	SSE	SE	SSE	SSE	SSE	SSE	SSE	SE	SSE	SSE
wind speed (m/s)	2.1	1.5	2.3	2.5	3.2	3.9	4.1	4.1	3.8	3.6	4.7	4.3	4.2	3.9	4.6	5.0	5.3	4.5	4.3	5.3	6.1	5.1	5.7	6.5

Fukushima Dai-ni NPS

as of 8:30, March 25th, 2011

MP1 : 24.850μSv/h
(Ref. Value:0.035～0.054μSv/h)

MP2 : 21.447μSv/h
(Ref. Value:0.042～0.062μSv/h)

MP3 : 17.277μSv/h
(Ref. Valur:0.036～0.052μSv/h)

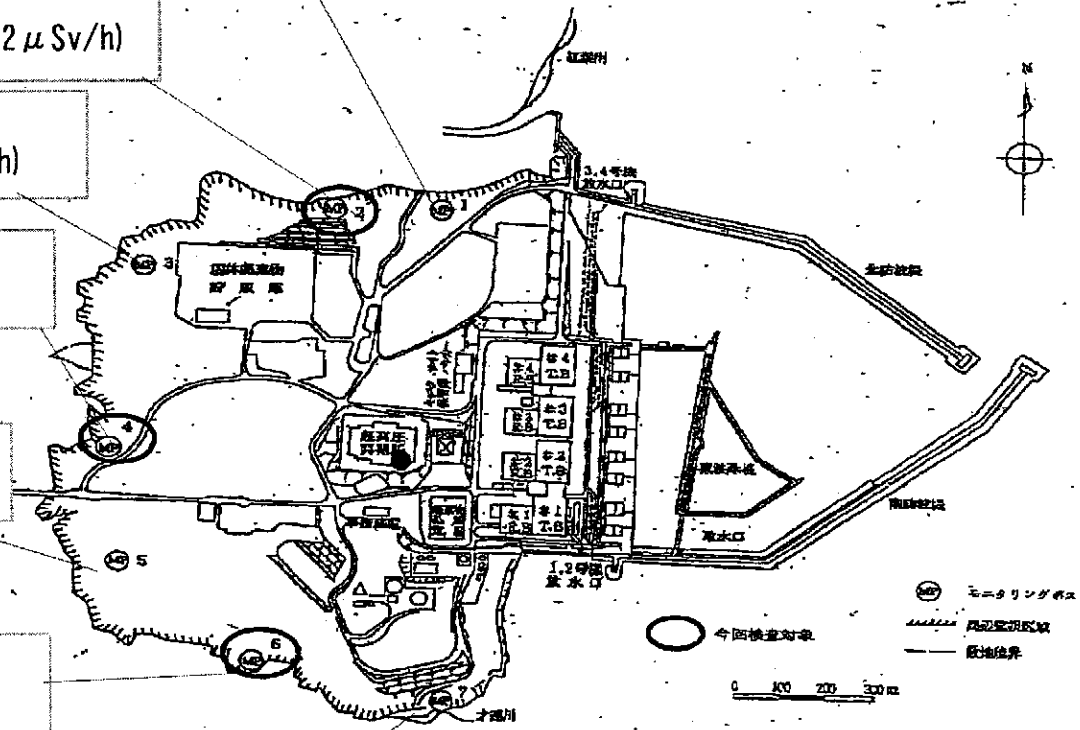
MP4 : 13.833μSv/h
(Ref. value: 0.036～0.052μSv/h)

MP5 : 14.713μSv/h
(Ref. Value:0.041～0.058μSv/h)

MP6 : 13.677μSv/h
(Ref. value:0.044～0.063μSv/h)

MP7 : N.D
(Ref. Value: 0.043～0.062μSv/h)

Location of Monitoring Post



参考資料（2）

Results of envirinmental monitoring at each NPSs etc.

unit: μ Sv/h

Range of normal average value	Company	NPS	March 24th, 2011											
			0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
0.023～0.027	Hokkaido Electric Power Co	Tomari NPS	0.033	0.028	0.027	0.031	0.028	0.027	0.026	0.026	0.026	0.025	0.025	0.025
0.024～0.060	Tohoku Electric Power Co.	Onagawa NPS	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.10	1.10
0.012～0.060		Higashidori NPS	0.018	0.018	0.020	0.022	0.021	0.026	0.023	0.019	0.018	0.019	0.019	0.018
0.033～0.050	Tokyo Electric Power Co.	Fukushima Dai-ichi※	222.3	220.6	218.9	216.6	215.1	214.4	212.8	212.2	211.6	210.1	210.1	209.3
0.036～0.052		Fukushima Dai-ni	13.350	13.257	13.160	13.123	13.023	12.978	12.950	12.817	12.810	12.707	12.667	12.547
0.011～0.159		Kashiwazaki kariwa NPS	0.066	0.065	0.066	0.065	0.066	0.066	0.065	0.065	0.065	0.066	0.066	0.065
0.036～0.053	Japan Atomic Power Co.	Tokai Dai-ni NPS	1.007	1.006	1.003	0.996	0.990	0.989	0.990	0.983	0.983	0.978	0.975	0.971
0.039～0.110		Tsuruga NPS	0.074	0.073	0.074	0.074	0.074	0.074	0.074	0.075	0.085	0.077	0.074	0.074
0.064～0.108	Chubu Electric Power Co.	Hamaoka NPS	0.084	0.084	0.084	0.084	0.085	0.084	0.085	0.085	0.084	0.084	0.083	0.083
0.0207～0.132	Hokuriku Electric Power Co	Shika NPS	0.032	0.032	0.032	0.032	0.033	0.033	0.033	0.041	0.042	0.037	0.034	0.033
0.028～0.130	Chugoku Electric Power Co	Shimane NPS	0.031	0.030	0.030	0.030	0.030	0.030	0.030	0.033	0.032	0.030	0.030	0.030
0.070～0.077	Kansai Electric Power Co.	Mihama NPS	0.072	0.073	0.073	0.072	0.073	0.073	0.074	0.073	0.074	0.073	0.073	0.073
0.045～0.047		Takahama NPS	0.043	0.043	0.042	0.043	0.043	0.043	0.042	0.043	0.043	0.044	0.044	0.043
0.036～0.040		Ooi NPS	0.036	0.036	0.037	0.037	0.037	0.037	0.037	0.036	0.037	0.036	0.035	0.035
0.011～0.080	Shikoku Electeic Power Co.	Ikata NPS	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.013	0.014	0.014	0.014	0.014
0.023～0.087	Kyushu Electric Power Co.	Genkai NPS	0.026	0.025	0.026	0.027	0.026	0.026	0.027	0.026	0.027	0.025	0.026	0.027
0.034～0.120		Sendai NPS	0.036	0.037	0.037	0.040	0.037	0.039	0.038	0.037	0.039	0.037	0.036	0.038
0.009～0.069	Japan Nuclear Fuel Limited	Japan Nuclear Fuel Reprocessing Plant	0.018	0.018	0.017	0.020	0.023	0.017	0.016	0.016	0.016	0.016	0.016	0.016
0.009～0.071		Japan Nuclear Fuel Plant Disposal	0.022	0.021	0.020	0.023	0.025	0.021	0.020	0.020	0.020	0.020	0.020	0.019

※There could be small deviation on the monitoring time and area because of operational situation concerning with data of Fukushima Dai-ichi NPS

Range of normal average value	Company	NPS	March 24th, 2011											
			12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
0.023～0.027	Hokkaido Electric Power Co	Tomari NPS	0.025	0.025	0.025	0.026	0.035	0.029	0.026	0.026	0.026	0.026		
0.024～0.060	Tohoku Electric Power Co.	Onagawa NPS	1.10	1.10	1.10	1.10	1.10	1.10	1.20	1.10	1.10	1.10		
0.012～0.060		Higashidori NPS	0.017	0.017	0.018	0.017	0.017	0.017	0.017	0.018	0.018	0.019		
0.033～0.050	Tokyo Electric Power Co.	Fukushima Dai-ichi※	209.4	208.1	209.0	209.8	207.4	206.4	204.6	204.3	202.9	202.0		
0.036～0.052		Fukushima Dai-ni	12.497	12.433	12.407	12.353	12.337	12.263	12.220	12.167	12.113	12.090		
0.011～0.159		Kashiwazaki kariwa NPS	0.065	0.065	0.065	0.065	0.065	0.065	0.070	0.068	0.085	0.073		
0.036～0.053	Japan Atomic Power Co.	Tokai Dai-ni NPS	0.964	0.965	0.960	0.952	0.950	0.950	0.942	0.938	0.940	0.939		
0.039～0.110		Tsuruga NPS	0.074	0.074	0.077	0.077	0.075	0.073	0.074	0.082	0.084	0.079		
0.064～0.108	Chubu Electric Power Co.	Hamaoka NPS	0.083	0.083	0.083	0.082	0.082	0.082	0.082	0.082	0.082	0.082		
0.0207～0.132	Hokuriku Electric Power Co	Shika NPS	0.032	0.033	0.036	0.034	0.035	0.038	0.035	0.036	0.036	0.035		
0.028～0.130	Chugoku Electric Power Co	Shimane NPS	0.029	0.031	0.031	0.030	0.030	0.029	0.030	0.030	0.030	0.026		
0.070～0.077	Kansai Electric Power Co.	Mihama NPS	0.074	0.074	0.076	0.077	0.073	0.075	0.077	0.078	0.084	0.078		
0.045～0.047		Takahama NPS	0.043	0.043	0.043	0.042	0.043	0.043	0.042	0.042	0.042	0.043		
0.036～0.040		Ooi NPS	0.035	0.036	0.036	0.036	0.036	0.034	0.035	0.035	0.035	0.035		
0.011～0.080	Shikoku Electeic Power Co.	Ikata NPS	0.014	0.014	0.015	0.014	0.014	0.014	0.014	0.014	0.014	0.014		
0.023～0.087	Kyushu Electric Power Co.	Genkai NPS	0.026	0.027	0.026	0.026	0.026	0.026	0.027	0.025	0.025	0.027		
0.034～0.120		Sendai NPS	0.038	0.037	0.037	0.036	0.040	0.039	0.036	0.036	0.036	0.040		
0.009～0.069	Japan Nuclear Fuel Limited	Japan Nuclear Fuel Reprocessing Plant	0.016	0.016	0.016	0.016	0.016	0.016	0.017	0.016	0.016	0.016		
0.009～0.071		Japan Nuclear Fuel Plant Disposal	0.019	0.019	0.019	0.019	0.020	0.020	0.020	0.020	0.019	0.020		

※There could be small deviation on the monitoring time and area because of operational situation concerning with data of Fukushima Dai-ichi NPS

Results of Nuclide Analysis in TEPCO Fukushima Dai-ichi NPS

Sampling Method:Extraction of Dust by Monitoring Car
Measuring Method: Analysis of Samples by Ge-Semiconductor Nuclide Analizer in Fukushima Dai-ni NPS (once in a day)
Measuring time:500 seconds

Nuclide		March 19th, 2011 North of Main Building Sampling Time(11:53～12:13)＊Before Water Spraying Measurig Duration(14:12～)			March 20th, 2011 North of Main Building Sampling Time(1:41～2:01) Measuring Duration(13:28～)			March 21st, 2011 North of Main Building Sampling Time(10:19～10:39) Measuring Duration(13:28～)			③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Air (①/③)	① Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Air (①/③)	① Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	
Volitile	I-131	5.940E-03	3.374E-05	5.94	2.303E-03	1.256E-05	2.30	1.516E-03	1.134E-05	1.52	1.0E-03
	I-132	2.203E-03	8.816E-05	0.03	N.D			2.539E-04	2.702E-05	0.00	7.0E-02
	I-133	3.773E-05	2.861E-05	0.01	N.D			N.D			5.0E-03
In Particle	Cs-134	2.165E-05	1.692E-05	0.01	2.840E-05	4.755E-06	0.01	3.383E-05	5.364E-06	0.02	2.0E-03
	Cs-136	N.D			5.629E-06	5.447E-06	0.001	4.529E-06	3.321E-06	0.0005	1.0E-02
	Cs-137	2.437E-05	1.771E-05	0.01	2.892E-05	5.003E-06	0.01	3.801E-05	4.671E-06	0.01	3.0E-03

Nuclide		March 22nd, 2011 Main Gate Sampling Time(1:10～1:30) Measuring Duration(14:50～)			March 23rd, 2011 Main Gate Sampling Time(2:01～2:21) Measuring Duration(14:54～)						③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Air (①/③)	① Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)				
Volitile	I-131	2.2E-03	1.569E-05	2.24	6.7E-04	9.6E-06	0.67				1.0E-03
	I-132	N.D			3.0E-04	8.8E-06	0.00				7.0E-02
	I-133	N.D			N.D						5.0E-03
In Particle	Co-58	N.D			5.1E-06	5.1E-06	0.00				1.0E-02
	Cs-134	1.591E-05	5.853E-06	0.01	1.7E-05	4.2E-06	0.01				2.0E-03
	Cs-136	N.D			3.0E-06	2.7E-06	0.00				1.0E-02
	Cs-137	1.889E-05	5.295E-06	0.01	1.3E-05	4.2E-06	0.00				3.0E-03
Other	Te-129	N.D			2.3E-01	1.2E-01	0.58				4.0E-01
	Te-132	6.680E-05	1.116E-05	0.01	4.3E-04	4.5E-06	0.06				7.0E-03
	Ce-144	6.680E-05	1.116E-05	0.01	1.3E-03	3.7E-04	1.86				7.0E-04

※Legal concentration limit provided to average density of three months of radionuclide in air that person breathes.

Sampling Method: Sampling by Pumping Seawater
Measuring Method: Analysis of 500 ml Seawater Sample by Ge-Semiconductor Nuclide Analizer in Fukushima Dai-ni NPS
Measuring time: 1000 seconds

Nuclide	as of 14:30, March 21st, 2011 Near south water discharge gate (Unit1-4 330m from water discharge gate in direction of)			as of 06:30, March 22nd, 2011 Near south water discharge gate (Unit1-4 330m from water discharge gate in direction of)			as of 08:50, March 23rd, 2011 Near south water discharge gate (Unit1-4 330m from water discharge gate in direction of)			③Conc. Limit in Water outside Envronmental Monitaring Area
	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	① Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	① Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	
Co-58	5.955E-02	3.349E-02	0.1	1.668E-02	2.138E-02	0.0	5.0E-02	2.6E-02	-	1E+00
I-131	5.066E+00	4.245E-02	126.7	1.190E+00	2.293E-02	29.8	5.9E+00	3.6E-02	146.9	4E-02
I-132	2.136E+00	1.925E-01	0.7	1.362E+00	7.721E-02	0.5	5.4E+00	1.4E-01	1.8	3E+00
Cs-134	1.486E+00	4.030E-02	24.8	1.504E-01	1.769E-02	2.5	2.5E-01	2.7E-02	4.2	6E-02
Cs-136	2.132E-01	2.358E-02	0.7	2.350E-02	1.056E-02	0.1	2.5E-02	2.4E-02	0.1	3E-01
Cs-137	1.484E+00	4.204E-02	16.5	1.535E-01	1.626E-02	1.7	2.5E-01	2.7E-02	2.8	9E-02
Zr-95							2.3E-01	7.8E-02	0.3	9E-01
Ru-105							6.7E-01	6.2E-01	0.3	3E+00
Ru-106							3.7E-01	2.0E-01	3.7	1E-01
Te-129							4.0E+00	3.9E+00	0.4	1E+01
Te-132							4.0E+01	3.6E-02	200.5	2E-01
La-140							1.3E-02	1.0E-02	0.0	4E-01

Nuclide	as of 9:10, March 23rd, 2011 Near Unit5-6 water discharge gate, north side (Unit5-6 30m from water discharge gate in direction of north)									③Conc. Limit in Water outside Envronmental Monitaring Area
	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	① Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	① Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	
Co-58	5.000E-02	3.100E-02	0.1							1E+00
I-131	2.700E+00	2.500E-02	66.6							4E-02
I-132	2.900E+00	7.700E-02	1.0							3E+00
Cs-134	1.800E+00	2.400E-02	29.9							6E-02
Cs-136	2.300E-01	2.500E-02	0.8							3E-01
Cs-137	1.900E+00	2.400E-02	21.4							9E-02
Tc-99m	8.300E-02	2.500E-02	0.0							4E+01
Te-129	7.300E+00	3.800E+00	0.7							1E+01
Te-129m	1.300E+00	6.100E-01	4.2							3E-01
Te-132	1.600E+00	2.100E-02	7.8							2E-01
Ba-140	1.300E-01	9.400E-02	0.4							3E-01
La-140	5.500E-02	1.200E-02	0.1							4E-01

Results of Nuclide Analysis in TEPCO Fukushima Dai-ni NPS

Sampling Method:Extraction of Dust by Monitoring Car

Measuring Method: Analysis of Samples by Ge-Semiconductor Nuclide Analizer in Fukushima Dai-ni NPS (twice in a day)

Nuclide		March 16th, 2011 East Side of Information Building Sampling Time (7:56～8:06) Measuring Duration(8:47～) 500 seconds			March 16th, 2011 st Floor Entrance of Earthquake Isolation Buildin Sampling Time (10:00～10:10) Measuring Duration(11:59～) 500 seconds			March 17th, 2011 MP-1 Sampling Time(13:50～14:00) Measuring Duration(22:01～) 1000 seconds			③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio o Conc.Limit i Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit i Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Air (①/③)	
Volitile	I-131	3.432E-04	2.559E-05	0.34	6.889E-04	1.268E-05	0.69	9.432E-05	3.351E-06	0.09	1.0E-03
	I-132	1.149E-03	2.812E-05	0.02	7.528E-04	1.986E-05	0.01	N.D			7.0E-02
	I-133	3.448E-05	2.687E-05	0.01	4.395E-05	1.497E-05	0.01	3.304E-06	4.478E-06	0.00	5.0E-03
In Particle	Co-58	N.D			4.943E-05	2.685E-05	0.00	2.494E-05	2.061E-05	0.00	1.0E-02
	Cs-134	1.237E-04	1.449E-05	0.06	4.163E-04	2.459E-05	0.21	3.314E-04	1.680E-05	0.17	2.0E-03
	Cs-136	2.699E-05	9.412E-06	0.00	7.504E-05	1.495E-05	0.01	6.107E-05	1.296E-05	0.01	1.0E-02
	Cs-137	1.227E-04	1.311E-05	0.04	3.861E-04	2.057E-05	0.13	3.232E-04	1.702E-05	0.11	3.0E-03

Nuclide		March 18th, 2011 MP-1 Sampling Time (8:22～8:32) Measuring Duration(9:40～) 1000 seconds			March 18th, 2011 MP-1 Sampling Time (15:09～15:19) Measuring Duration(17:12～) 1000 seconds			March 19th, 2011 MP-1 Sampling Time (9:15～9:25) Measuring Duration(10:39～) 1000 seconds			③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	
Volitile	I-131	8.630E-04	3.145E-05	0.86	4.298E-03	4.993E-05	4.30	2.695E-04	5.585E-05	0.27	1.0E-03
	I-132	1.720E-03	3.821E-05	0.02	2.625E-03	9.359E-05	0.04	N.D			7.0E-02
	I-133	N.D			5.246E-05	4.213E-05	0.01	N.D			5.0E-03
In Particle	Co-58	3.080E-05	2.048E-05	0.00	1.578E-04	1.435E-05	0.02	N.D			1.0E-02
	Cs-134	3.345E-04	1.666E-05	0.17	4.863E-04	1.538E-05	0.24	N.D			2.0E-03
	Cs-136	5.882E-05	1.012E-05	0.01	8.416E-05	1.436E-05	0.01	N.D			1.0E-02
	Cs-137	3.147E-04	1.683E-05	0.10	4.306E-04	1.715E-05	0.14	N.D			3.0E-03

※Legal concentration limit provided to average density of three months of radionuclide in air that person breathes.

Nuclide		March 19th, 2011 MP-1 Sampling Time (18:18～18:28) Measuring Duration(19:08～) 1000 seconds			March 20th, 2011 MP-1 Sampling Time (11:27～11:37) Measuring Duration(16:17～) 500 seconds			March 20th, 2011 MP－1 Sampling Time (17:10～17:20) Measuring Duration(21:11～) 500 seconds			③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	
Volitile	I-131	2.513E-04	5.665E-05	0.25	5.254E-05	1.155E-05	0.05	2.230E-04	4.286E-05	0.22	1.0E-03
	I-132	1.229E-04	1.226E-04	0.00	N.D			N.D			7.0E-02
	I-133	N.D			N.D			N.D			5.0E-03
In Particle	Co-58	N.D			N.D			N.D			1.0E-02
	Cs-134	N.D			N.D			N.D			2.0E-03
	Cs-136	N.D			N.D			N.D			1.0E-02
	Cs-137	N.D			N.D			N.D			3.0E-03

Nuclide		March 21st, 2011 MP-1 Sampling Time(10:40～10:50) Measuring Duration(12:15～) 500 seconds			March 21st, 2011 MP-1 Sampling Time(18:11～18:19) Measuring Duration(19:00～) 500 seconds						③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Air (①/③)	
Volitile	I-131	2.250E-04	1.687E-05	0.23	1.580E-04	1.931E-05	0.16				1.0E-03
	I-132	2.420E-04	2.401E-05	0.00	8.097E-04	1.937E-05	0.01				7.0E-02
	I-133	N.D									5.0E-03
In Particle	Co-58	1.065E-05	1.138E-05	0.00	1.341E-05	9.886E-06	0.00				1.0E-02
	Cs-134	4.410E-05	9.294E-06	0.02	3.017E-05	1.005E-05	0.02				2.0E-03
	Cs-136	N.D			N.D						1.0E-02
	Cs-137	4.711E-05	7.959E-06	0.02	3.306E-05	9.703E-06	0.01				3.0E-03

※Legal concentration limit provided to average density of three months of radionuclide in air that person breathes.

Nuclide		March 22nd, 2011 MP-1 Sampling Time(10:02～10:10) Measuring Duration(11:53～) 500 seconds			March 22nd, 2011 MP-1 Sampling Time (16:43～16:51) Measureing Duration(17:32～) 500 seconds			March 23rd, 2011 MP-1 Sampling Time (9:40～9:48) Measureing Duration(14:17～) 500 seconds			③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	
Volitile	I-131	1.416E-04	2.272E-05	0.14	1.349E-04	2.216E-05	0.13	2.7E-04	3.9E-05	0.27	1.0E-03
	I-132	N.D			N.D			2.8E-04	2.2E-04	0.00	7.0E-02
	I-133	N.D			N.D			N.D			5.0E-03
In Particle	Co-58	N.D			N.D			N.D			1.0E-02
	Cs-134	1.293E-05	9.474E-06	0.01	1.353E-05	9.812E-06	0.01	N.D			2.0E-03
	Cs-136	N.D			N.D			N.D			1.0E-02
	Cs-137	1.024E-05	8.838E-06	0.003	1.369E-05	8.361E-06	0.005	N.D			3.0E-03
others	Te-129	2.316E-03	1.784E-03	0.01	N.D			N.D			4.0E-01
	Te-132	2.191E-05	1.649E-05	0.003	N.D			1.6E-04	2.2E-05	0.02	7.0E-02
	Ru-106	N.D			N.D			N.D			6.0E-04

Nuclide		March 23rd, 2011 MP-1 Sampling Time(16:06～16:14) Measuring Duration(17:38～) 500 seconds									③Conc. Limit in Air Breathed by Radiation Worker (Bq/cm^3)※
		①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Air (①/③)	
Volitile	I-131	2.1E-04	1.4E-05	0.21							1.0E-03
	I-132	2.8E-04	2.8E-05	0.00							7.0E-02
	I-133	N.D									5.0E-03
In Particle	Co-58	N.D									1.0E-02
	Cs-134	1.7E-05	8.5E-06	0.01							2.0E-03
	Cs-136	3.7E-06	5.2E-06	0.00							1.0E-02
	Cs-137	1.7E-05	6.9E-06	0.01							3.0E-03
others	Te-129	9.3E-04	2.6E-04	0.00							4.0E-01
	Te-132	7.1E-04	6.5E-06	0.10							7.0E-03
	Ru-106	8.2E-05	5.7E-05	0.14							6.0E-04

※Legal concentration limit provided to average density of three months of radionuclide in air that person breathes.

Sampling Method: Sampling by Pumping Seawater

Measuring Method: Analysis of 500 ml Seawater Sample by Ge-Semiconductor Nuclide Analizer

Measuring time: 1,000 seconds

Nuclide	as of 23:15, March 21st, 2011 Near north water discharge gate (water discharge gate of			as of 15:06, March 22nd, 2011 Near Iwasawa Seashore (around 7,000m from water			as of 0:38, March 22nd, 2011 Near mouth of Tomioka River (around 2,000m from water			③Conc. Limit in Water outside Envronmental Monitaring Area
	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Water (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	
Co-58	5.704E-03	7.570E-03	0.0	N.D	1.301E-02		1.028E-02	1.253E-02	0.0	1.0E+00
I-131	1.085E+00	1.284E-02	27.1	6.664E-01	1.862E-02	16.7	3.211E+00	1.694E-02	80.3	4.0E-02
I-132	1.597E-01	4.392E-02	0.1	N.D	7.915E-02		8.761E-01	4.236E-02	0.3	3.0E+00
Cs-134	4.815E-02	9.213E-03	0.8	3.925E-02	1.135E-02	0.7	7.535E-02	1.102E-02	1.3	6.0E-02
Cs-136	6.682E-03	4.722E-03	0.0	N.D	6.784E-03		1.159E-02	7.718E-02	0.0	3.0E-01
Cs-137	5.283E-02	8.822E-03	0.6	4.361E-02	1.129E-02	0.5	7.760E-02	1.186E-02	0.9	9.0E-02

Nuclide	as of 14:28, March 22nd, 2011 Near north water discharge gate (water discharge gate of			as of 13:51, March 23rd, 2011 Near Iwasawa Seashore (around 7,000m from water			as of 14:25, March 23rd, 2011 Near Iwasawa Seashore (around 7,000m from water			③Conc. Limit in Water outside Envronmental Monitaring Area
	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit In Water (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	①Conc. of Radioactivity (Bq/cm^3)	②Conc. of Detection Limit (Bq/cm^3)	Ratio of Conc.Limit in Water (①/③)	
Co-58	N.D	1.526E-02								
Ru-105				3.4E-02	2.5E-02	0.01	3.3E-02	2.8E-02	0.01	3E+00
Ru-106							1.2E-01	1.2E-01	1.25	1E-01
I-131	1.138E+00	1.993E-02	28.5	7.4E-01	2.7E-02	18.6	7.6E-01	2.7E-02	19.1	4E-02
I-132	N.D	8.791E-02		2.0E-01	5.8E-02	0.1	3.3E-01	5.3E-02	0.1	3E+00
Cs-134	4.631E-02	1.350E-02	0.8	5.1E-02	2.0E-02	0.8	3.3E-02	2.1E-02	0.5	6E-02
Cs-136	N.D	7.849E-03								
Cs-137	3.962E-02	1.406E-02	0.4	5.5E-02	2.0E-02	0.6	4.3E-02	2.1E-02	0.5	9E-02

News Release
Extract

経済産業省
Ministry of Economy, Trade and Industry

March 24, 2011
Nuclear and Industrial Safety Agency

Seismic Damage Information (the 49th Release)
(As of 19:30 March 24th, 2011)

Nuclear and Industrial Safety Agency (NISA) confirmed the current situation of Onagawa NPS, Tohoku Electric Power Co. Inc.; Fukushima Dai-ichi and Fukushima Dai-ni NPSs, Tokyo Electric Power Co. Inc. (TEPCO); Tokai Dai-ni NPS, Japan Atomic Power Co. Inc. as follows:

Major updates are as follows.

1. Exposure of Workers

As for the workers conducting operations in Fukushima Dai-ichi Nuclear Power Station(NPS), the number of people who were at the level of exposure more than 100mSv was 14 (All the people were TEPCO's employees.), as of the morning of March 24th. Furthermore, today, three workers (All the people were the subcontractor's employees.) who were laying cables in the turbine building of Unit 3 of the NPS were confirmed to be at the level of exposure more than 170mSv. In total, the number of workers who were at the level of exposure more than 100mSv becomes 17.

2. Nuclear Power Stations (NPSs)

● Fukushima Dai-ichi NPS

- Around 120t of seawater was injected to the Spent Fuel Pool of Unit 3 via the Cooling and Purification Line. (From around 5:35 till around 16:05 March 24th)
- Around 150t of seawater was sprayed over the Spent Fuel Pool of Unit 4 using Concrete Pump Truck (50t/h). (From 14:36 till 17:30 March 24th)
- Repair of the temporary pump for Residual Heat Removal Seawater System for Unit 5 was completed (16:14 March 24th) and cooling was started again. (16:35 March 24th)
- For the Common Spent Fuel Pool, the external power was started to be supplied, (15:37 March 24th) and cooling was also started.(18:05 March

24th)

For more information:
NISA English Home Page
http://www.nisa.meti.go.jp/english/index.html

March 25, 2011
Nuclear and Industrial Safety Agency

Seismic Damage Information (the 51st Release)
(As of 12:30 March 25th, 2011)

Nuclear and Industrial Safety Agency (NISA) confirmed the current situation of Onagawa NPS, Tohoku Electric Power Co. Inc.; Fukushima Dai-ichi and Fukushima Dai-ni NPSs, Tokyo Electric Power Co. Inc. (TEPCO); Tokai Dai-ni NPS, Japan Atomic Power Co. Inc. as follows:

Major updates are as follows.

1. Exposure of Workers

On March 24th, three workers (All the people were the subcontractor's employees.) who were laying cables on the ground floor and the basement floor of the turbine building of Unit 3 were confirmed to be at the level of exposure more than 170mSv. Regarding the two of them, the attachment of radioactive material on the skin of both legs was confirmed. As the two workers were judged to have a possibility of beta ray burn, they were transferred to the Fukushima Medical University Hospital, and departed for the National Institute of Radiological Sciences in the Chiba Prefecture in the afternoon of March 25th.

Concerning the result of survey for the water that those workers stepped in, the dose rate on the surface of the water was about 400mSv/h and, as a result of gamma ray nuclide analysis of sampled water, the concentration of radioactive nuclide of the sample was about 3.9×10^{6} Bq/cm^{3} in total of each nuclides.

2. Nuclear Power Stations (NPSs)

- Fukushima Dai-ichi NPS

・ Injection of seawater to the Spent Fuel Pool of Unit 4 via the Fuel Pool Cooling Line was carried out. (From 06:05 till 10:20 March 25th)
・ Injection of seawater to the Spent Fuel Pool of Unit 2 via the Fuel Pool Cooling Line was carried out. (From 10:30 till 12:19 March 25th)

(Attached sheet)

1. The state of operation at NPS (Number of automatic shutdown units: 10)

- Fukushima Dai-ichi NPS, TEPCO
  (Okuma Town and FutabaTown, Futaba County, Fukushima Prefecture)

(1) The state of operation

Unit 1 (460MWe): automatic shutdown
Unit 2 (784MWe): automatic shutdown
Unit 3 (784MWe): automatic shutdown
Unit 4 (784MWe): in periodic inspection outage
Unit 5 (784MWe): in periodic inspection outage, cold shutdown at 14:30 March 20th
Unit 6 (1,100MWe): in periodic inspection outage, cold shutdown at 19:27 March 20th

(2) Major Plant Parameters (As of 10:00 March 25th)

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Reactor Pressure*1 [MPa]	0.450(A) 0.450(B)	0.081(A) 0.081(B)	0.139(A) 0.004(C)	—	0.113	0.109
CV Pressure (D/W) [kPa]	295	120	107	—	—	—
Reactor Water Level*2 [mm]	−1,650(A) −1,650(B)	−1,200(A) Not available(B)	−1,900(A) −2,300(B)	—	2,497	2,396
Suppression Pool Water Temperature (S/C) [℃]	—	—	—	—	—	—
Suppression Pool Pressure (S/C) [kPa]	290	down scale	194	—	—	—
Spent Fuel Pool Water Temperature [℃]	—	28	—	Incorrect Indication	39.5	19.5
Time of Measurement	10:00 March 25th	10:00 March 25th	06:10 March 25th	11:00 March 24th	10:00 March 25th	10:00 March 25th

*1: Converted from reading value to absolute pressure

*2: Distance from the top of fuel

(3) Situation of Each Unit

<Unit 1>

- TEPCO reported to NISA the event (Inability of water injection of the Emergency Core Cooling System) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness. (16:36 March 11th)
- Operation of Vent (10:17 March 12th)
- Seawater injection to the Reactor Pressure Vessel (RPV) via the Fire Extinguish Line started. (20:20 March 12th)
  →Temporary interruption of the injection (01:10 March 14th)
- The sound of explosion in Unit 1 occurred. (15:36 March 12th)
- The amount of injected water to the to the Reactor Core was increased by utilizing the Water Supply Line in addition to the Fire Extinguish Line. ($2m^3/h \rightarrow 18m^3/h$).(02:33 March 23rd) Later, it was switched to the Water Supply Line only (around $11m^3/h$). (09:00 March 23rd)
- Lighting in the Central Operation Room was recovered. (11:30 March 24th)
- White smoke was confirmed to generate continuously. (Around 06:20 March 25th)
- Seawater injection to RPV continues. (As of 12:30 March 25th)

<Unit 2>

- TEPCO reported to NISA the event (Inability of water injection of the Emergency Core Cooling System) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness. (16:36 March 11th)
- Operation of Vent (11:00 March 13th)
- The Blow-out Panel of reactor building was opened due to the explosion in the reactor building of Unit 3. (After 11:00 March 14th)
- Reactor water level tended to decrease. (13:18 March 14th) TEPCO reported to NISA the event (Loss of reactor cooling functions) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness. (13:49 March 14th)

- Seawater injection to RPV via the Fire Extinguish line was ready. (19:20 March 14th)
- Water level in RPV tended to decrease. (22:50 March 14th)
- Operation of Vent (0:02 March 15th)
- A sound of explosion was made in Unit 2. As the pressure in Suppression Chamber decreased (06:10 March 15th), there was a possibility that an incident occurred in the Chamber. (About 06:20 March 15th)
- Electric power receiving at the emergency power source transformer from the external transmission line was completed. The work for laying the electric cable from the facility to the load side was carried out. (As of 13:30 March 19th)
- Injection of 40t of Seawater to the Spent Fuel Pool was started.(from 15:00 till 17:20 March 20th)
- Power Center of Unit 2 received electricity (15:46 March 20th)
- White smoke generated. (18:22 March 21st)
- White smoke was died down and almost invisible. (As of 07:11 March 22nd)
- Injection of 18t of Seawater to the Spent Fuel Pool was carried out. (From 16:07 till 17:01 March 22nd)
- White smoke was confirmed to generate continuously. (Around 06:20 March 25th)
- Injection of seawater to the Spent Fuel Pool via the Fuel Pool Cooling Line was carried out. (From 10:30 till 12:19 March 25th)
- Seawater injection to RPV continues. (As of 12:30 March 25th)

<Unit 3>

- TEPCO reported to NISA the event (Inability of water injection of the Emergency Core Cooling System) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness. (05:10 March 13th)
- Operation of Vent (20:41 March 12th)
- Operation of Vent (09:20 March 13th)
- Fresh water started to be injected to RPV via the Fire Extinguish Line. (11:55 March 13th)
- Seawater started to be injected to RPV via the Fire Extinguish Line.

(13:12 March 13th)

- Seawater injection for Units 1 and 3 was interrupted due to the lack of seawater in pit. (01:10 March 14th)
- Seawater injection to RPV for Unit 3 was restarted. (03:20 March 14th)
- Operation of Vent (05:20 March 14th)
- The pressure in Primary Containment Vessel (PCV) of Unit 3 rose unusually. (07:44 March 14th) TEPCO reported to NISA on the event falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness. (7:52 March 14th)
- In Unit 3, the explosion like Unit 1 occurred around the reactor building (11:01 March 14th)
- The white smoke like steam generated from Unit 3. (08:30 March 16th)
- Because of the possibility that PCV of Unit 3 was damaged, the workers evacuated from the main control room of Units 3 and 4 (common control room). (10:45 March 16th) Thereafter the operators returned to the room and restarted the operation of water injection. (11:30 March 16th)
- Seawater was discharged 4 times to Unit 3 by the helicopters of the Self-Defence Force. (9:48, 9:52, 9:58 and 10:01 March 17th)
- The riot police arrived at the site for the water spray from the grand. (16:10 March 17th)
- The Self-Defence Force started the water spray using a fire engine. (19:35 March 17th)
- The water spray from the ground was carried out by the riot police. (From 19:05 till 19:13 March 17th)
- The water spray from the ground was carried out by the Self-Defense Force using 5 fire engines. (19:35, 19:45, 19:53, 20:00 and 20:07 March 17th)
- The water spray from the ground using 6 fire engines (6 tons of water spray per engine) was carried out by the Self-Defence Force. (From before 14:00 till 14:38 March 18th)
- The water spray from the ground using a fire engine provided by the US Military was carried out. (Finished at 14:45 March 18th)
- Hyper Rescue Unit of Tokyo Fire Department arrived at the Main Gate (23:10 March 18th) and entered the NPS in order to spray water from the ground. (23:30 March 18th)
- Hyper Rescue Unit of Tokyo Fire Department carried out the water

spray. (Finished at 03:40 March 20th)

- The pressure in PCV of Unit 3 rose (320 kPa as of 11:00 March 20th). Preparation to lower the pressure was carried. Judging from the situation, immediate pressure relief was not required. Monitoring the pressure continues (120 kPa at 12:15 March 21st).
- On-site survey for leading electric cable (From 11:00 till 16:00 March 20th)
- Water spray over the Spent Fuel Pool of Unit 3 by Hyper Rescue Unit of Tokyo Fire Department was carried out (From 21:30 March 20th till 03:58 March 21st).
- Works for the recovery of external power supply is being carried out.
- Grayish smoke generated from Unit 3. (At around 15:55 March 21st)
- The smoke was confirmed to be died down. (17:55 March 21st)
- Grayish smoke changed to be whitish and seems to be ceasing. (As of 07:11 March 22nd)
- Water spray (Around 180t) by Hyper Rescue Unit of Tokyo Fire Department was carried out. (from 15:10 till 15:59 March 22nd)
- Lighting was recovered in the Central Operation Room. (22:43 March 22nd)
- Injection of 35t of seawater to the Spent Fuel Pool via the Fuel Pool Cooling Line was carried out. (From 11:03 till 13:20 March 23rd)
- Slightly blackish smoke generated from the reactor building. (Around 16:20 March 23rd) At around 23:30 March 23rd and around 4:50 March 24th, it was reported that the smoke seemed to cease.
- Around 120t of seawater was injected to the Spent Fuel Pool via the Fuel Pool Cooling Line. (From around 5:35 till around 16:05 March 24th)
- Seawater injection to RPV continues. (As of 12:30 March 25th)

<Unit 4>

- Because of the replacement work of the Shroud of RPV, no fuel was inside the RPV.
- The temperature of water in the Spent Fuel Pool had increased. (84 ℃ at 04:08 March 14th)
- It was confirmed that a part of wall in the operation area of Unit 4 was damaged. (06:14 March 15th)

- The fire at Unit 4 occurred. (09:38 March 15th) TEPCO reported that the fire was extinguished spontaneously. (11:00 March 15th)
- The fire occurred at Unit 4. (5:45 March 16th) TEPCO reported that no fire could be confirmed on the ground.(At around 06:15 March 16th)
- The Self-Defence Force started water spray over the Spent Fuel Pool of Unit 4 (09:43 March 20th).
- On-site survey for leading electric cable (From 11:00 till 16:00 March 20th)
- Water spray over the Spent Fuel Pool of Unit 4 by Self-Defence Force was started. (From around 18:30 till 19:46 March 20th).
- Water spray over the Spent Fuel Pool by Self-Defence Force using 13 fire engines was started (From 06:37 till 08:41 March 21st).
- Works for laying electricity cable to the Power Center was completed. (At around 15:00 March 21st)
- Power Center received electricity. (10:35 March 22nd)
- Spray of around 150t of water using Concrete Pump Truck (50t/h) was carried out. (from 17:17 till 20:32 March 22nd)
- Spray of around 130t of water using Concrete Pump Truck (50t/h) was carried out. (From 10:00 till 13:02 March 23rd)
- Spray of around 150t of water using Concrete Pump Truck (50t/h) was carried out. (From 14:36 till 17:30 March 24th)
- Injection of seawater to the Spent Fuel Pool via the Fuel Pool Cooling Line was carried out. (From 06:05 till 10:20 March 25th)
- White smoke was confirmed to generate continuously. (Around 06:20 March 25th)

<Units 5 and 6>

- The first unit of Emergency Diesel Generator (B) for Unit 6 is operating and supplying electricity. Water injection to RPV and the Spent Fuel Pool through the system of Make up Water Condensate (MUWC) is being carried out.
- The second unit of Emergency Diesel Generator (A) for Unit 6 started up. (04:22 March 19th)
- The pumps for Residual Heat Removal (RHR) (C) for Unit 5 (05:00 March 19th) and RHR (B) for Unit 6 (22:14 March 19th) started up and recovered heat removal function. It cools Spent Fuel Pool with priority.

(Power supply : Emergency Diesel Generator for Unit 6) (05:00 March 19th)

- Unit 5 under cold shut down (14:30 March 20th)
- Unit 6 under cold shut down (19:27 March 20th)
- Receiving electricity reached to the transformer of starter. (19:52 March 20th)
- Power supply to Unit 5 was switched from the Emergency Diesel Generator to external power supply. (11:36 March 21st)
- Power supply to Unit 6 was switched from the Emergency Diesel Generator to external power supply. (19:17 March 22nd)
- The temporary pump for RHR Seawater System (RHRS) was automatically stopped when the power supply was switched from the temporary to the permanent. (17:24 March 23rd)
- Repair of the temporary pump for RHRS was completed (16:14 March 24th) and cooling was started again. (16:35 March 24th)

<Common Spent Fuel Pool>

- It was confirmed that the water level of Spent Fuel Pool was maintained full at after 06:00 March 18th.
- As of 09:00 March 19th, the water temperature in the pool is 57℃.
- Water spray over the Common Spent Fuel Pool was started (From 10:37 till 15:30 March 21st)
- As of 16:30 March 21st, water temperature of the pool was around 61℃.
- As of 13:15 March 23rd, water temperature of the pool was around 57℃.
- The power was started to be supplied (15:37 March 24th) and cooling was also started.(18:05 March 24th)
- As of 18:40 March 24th, water temperature of the pool was around 73℃.

● Fukushima Dai-ni NPS (TEPCO)

(Naraha Town / Tomioka Town, Futaba County, Fukushima Prefecture.)

(1) The state of operation

Unit1 (1,100MWe): automatic shutdown, cold shut down at 17:00, March 14th

Unit2 (1,100MWe): automatic shutdown, cold shut down at 18:00,

March 14th

Unit3 (1,100MWe): automatic shutdown, cold shut down at 12:15, March 12th

Unit4 (1,100MWe): automatic shutdown, cold shut down at 07:15, March 15th

(2) Major plant parameters (As of 12:00 March 25th)

	Unit	Unit 1	Unit 2	Unit 3	Unit 4
Reactor Pressure*1	MPa	0.15	0.13	0.11	0.13
Reactor water temperature	℃	29.7	29.0	34.0	29.4
Reactor water level*2	mm	9,146	10,246	8,481	8,785
Suppression pool water temperature	℃	25	26	27	28
Suppression pool pressure	kPa (abs)	108	106	104	105
Remarks		cold shutdown	cold shutdown	cold shutdown	cold shutdown

*1: Converted from reading value to absolute pressure

*2: Distance from the top of fuel

(3) Report concerning other incidents

- TEPCO reported to NISA the event in accordance with the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Unit 1. (18:08 March 11th)
- TEPCO reported to NISA the events in accordance with the Article 10 regarding Units 1, 2 and 4. (18:33 March 11th)
- TEPCO reported to NISA the event (Loss of pressure suppression function) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Unit 1. (5:22 March 12th)
- TEPCO reported to NISA the event (Loss of pressure suppression function) falling under the Article 15 of the Act on Special Measures

Concerning Nuclear Emergency Preparedness regarding Unit 2. (5:32 March 12th)

- TEPCO reported to NISA the event (Loss of pressure suppression function) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Unit 4 of Fukushima Dai-ni NPS. (6:07 March 12th)

● Onagawa NPS (Tohoku Electric Power Co. Inc.)
(Onagawa Town, Oga County and Ishinomaki City, Miyagi Prefecture)

(1) The state of operation

Unit 1 (524MWe): automatic shutdown, cold shut down at 0:58, March 12th
Unit 2 (825MWe): automatic shutdown, cold shut down at earthquake
Unit 3 (825MWe): automatic shutdown, cold shut down at 1:17, March 12th

(2) Readings of monitoring post, etc.

MP2 (Monitoring at the North End of Site Boundary)
approx. 1.2μSV/h (16:00 March 23rd) → approx. 1.1μSV/h (16:00 March 24th)

(3) Report concerning other incidents

- Fire Smoke on the first basement of the Turbine Building was confirmed to be extinguished. (22:55 on March 11th)
- Tohoku Electric Power Co. reported to NISA in accordance with the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness. (13:09 March 13th)

2. Action taken by NISA

(March 11th)

14:46 Set up of the NISA Emergency Preparedness Headquarters (Tokyo) immediately after the earthquake
15:42 TEPCO reported to NISA in accordance with the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.
16:36 TEPCO recognized the event (Inability of water injection of the

Emergency Core Cooling System) in accordance with the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Units 1 and 2 of Fukushima Dai-ichi NPS. (Reported to NISA at 16:45)

18:08 Regarding Unit 1 of Fukushima Dai-ni NPS, TEPCO reported to NISA in accordance with the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness.

18:33 Regarding Units 1, 2 and 4 of Fukushima Dai-ni NPS, TEPCO reported to NISA in accordance with the Article 10 of Act on Special Measures Concerning Nuclear Emergency Preparedness.

19:03 The Government declared the state of nuclear emergency. (Establishment of Government Nuclear Emergency Response Headquarters and Local Emergency Response Headquarters)

20:50 Fukushima Prefecture's Emergency Response Headquarters issued a direction for the residents within 2 km radius from Unit 1 of Fukushima Dai-ichi NPS to evacuate. (The population of this area is 1,864.)

21:23 Directives from Prime Minister to the Governor of Fukushima Prefecture, the Mayor of Okuma Town and the Mayor of Futaba Town were issued regarding the event occurred at Fukushima Dai-ichi NPS, TEPCO, in accordance with the Paragraph 3, the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness as follows:

- Direction for the residents within 3km radius from Unit 1 of Fukushima Dai-ichi NPS to evacuate
- Direction for the residents within 10km radius from Unit 1 of Fukushima Dai-ichi NPS to stay in-house

24:00 Vice Minister of Economy, Trade and Industry, Ikeda arrived at the Local Emergency Response Headquarters

(March12th)

05:22 Regarding Unit 1 of Fukushima Dai-ni NPS, TEPCO recognized the event (Loss of pressure suppression function) to fall under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness. (Reported to NISA at 06:27)

05:32 Regarding Unit 2 of Fukushima Dai-ni NPS, TEPCO recognized the

event (Loss of pressure suppression function) to fall under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness.

05:44 Residents within 10km radius from Unit 1 of Fukushima Dai-ichi NPS shall evacuate by the Prime Minister Directive.

06:07 Regarding of Unit 4 of Fukushima Dai-ni NPS, TEPCO recognized the event (Loss of pressure suppression function) to fall under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness.

06:50 In accordance with the Paragraph 3, the Article 64 of the Nuclear Regulation Act, the order was issued to control the internal pressure of PCV of Units 1 and 2 of Fukushima Dai-ichi NPS.

07:45 Directives from Prime Minister to the Governor of Fukushima Prefecture, the Mayors of Hirono Town, Naraha Town , Tomioka Town and Okuma Town were issued regarding the event occurred at Fukushima Dai-ni NPS, TEPCO, pursuant to the Paragraph 3, the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness as follows:

- Direction for the residents within 3km radius from Fukushima Dai-ni NPS to evacuate
- Direction for the residents within 10km radius from Fukushima Dai-ni NPS to stay in-house

17:00 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

17:39 Prime Minister directed evacuation of the residents within the 10 km radius from Fukushima Dai-ni NPS.

18:25 Prime Minister directed evacuation of the residents within the 20km radius from Fukushima Dai-ichi NPS.

19:55 Directives from Prime Minister was issued regarding seawater injection to Unit 1 of Fukushima Dai-ichi NPS.

20:05 Considering the Directives from Prime Minister and pursuant to the Paragraph 3, the Article 64 of the Nuclear Regulation Act, the order was issued to inject seawater to Unit 1 of Fukushima Dai-ichi NPS and so on.

20:20 At Unit 1 of Fukushima Dai-ichi NPS, seawater injection started.

(March 13th)

05:38 TEPCO reported to NISA the event (Total loss of coolant injection function) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Unit 3 of Fukushima Dai-ichi NPS. Recovering efforts by TEPCO of the power source and coolant injection function and the work on venting were under way.

09:01 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

09:08 Pressure suppression and fresh water injection started for Unit 3 of Fukushima Dai-ichi NPS.

09:20 The Pressure Vent Valve of Unit 3 of Fukushima Dai-ichi NPS was opened.

09:30 Directive was issued for the Governor of Fukushima Prefecture, the Mayors of Okuma Town, Futaba Town, Tomioka Town and Namie Town in accordance with the Act on Special Measures Concerning Nuclear Emergency Preparedness on the contents of radioactivity decontamination screening.

09:38 TEPCO reported to NISA that Unit 1 of Fukushima Dai-ichi NPS reached a situation specified in the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness.

13:09 Tohoku Electric Power Co. reported to NISA that Onagawa NPS reached a situation specified in the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness.

13:12 Fresh water injection was switched to seawater injection for Unit 3 of Fukushima Dai-ichi NPS.

14:36 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

(March 14th)

01:10 Seawater injection for Units 1 and 3 of Fukushima Dai-ichi NPS were temporarily interrupted due to the lack of seawater in pit.

03:20 Seawater injection for Unit 3 of Fukushima Dai-ichi NPS was restarted.

04:40 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

05:38 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

07:52 TEPCO reported to NISA the event (Unusual rise of the pressure in PCV) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Unit 3 of Fukushima Dai-ichi NPS.

13:25 Regarding Unit 2 of Fukushima Dai-ichi NPS, TEPCO recognised the event (Loss of reactor cooling function) to fall under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness.

22:13 TEPCO reported to NISA in accordance with the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ni NPS.

22:35 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

(March 15th)

00:00: The acceptance of experts from IAEA was decided. NISA agreed to accept the offer of dispatching of the expert on NPS damage from IAEA considering the intention by Mr. Amano, Director General of IAEA. Therefore, the schedule of expert acceptance will be planned from now on according to the situation.

00:00: NISA also decided the acceptance of experts dispatched from NRC.

07:21 TEPCO reported to NISA the event (Unusual increase of radiation

dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

07:24 Incorporated Administration Agency, Japan Atomic Energy Agency (JAEA) reported to NISA in accordance with the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Nuclear Fuel Cycle Engineering Laboratories, Tokai Research and Development Centre.

07:44 JAEA reported to NISA in accordance with the Article 10 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Nuclear Science Research Institute.

08:54 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

10:30 According to the Nuclear Regulation Act, Minister of Economy, Trade and Industry issued the directions as follows.

For Unit 4: To extinguish fire and to prevent the occurrence of re-criticality

For Unit 2: To inject water to reactor vessel promptly and to vent Drywell.

10:59 Considering the possibility of lingering situation, it was decided that the function of the Local Emergency Response Headquarters was moved to the Fukushima Prefectural Office.

11:00 Prime Minister directed the in-house stay area.

In-house stay was additionally directed to the residents in the area from 20 km to 30 km radius from Fukushima Dai-ichi NPS considering in-reactor situation.

16:30 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

22:00 According to the Nuclear Regulation Act, Minister of Economy, Trade and Industry issued the following direction.

For Unit 4: To implement the injection of water to the Spent Fuel Pool.

23:46 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

(March 18th)

13:00 Ministry of Education, Culture, Sports, Science and Technology decided to reinforce the nation-wide monitoring survey in the emergency of Fukushima Dai-ichi and Dai-ni NPS.

15:55 TEPCO reported to NISA on the accidents and failure at Units 1, 2, 3 and 4 of Fukushima Dai-ichi NPS (Leakage of the radioactive materials inside of the reactor buildings to non-controlled area of radiation) pursuant to the Article 62-3 of the Nuclear Regulation Act.

16:48 Japan Atomic Power Co. reported to NISA accidents and failures in Tokai NPS (Failure of the seawater pump motor of the emergency diesel generator 2C) pursuant to the Article 62-3 of the Nuclear Regulation Act.

(March 19th)

07:44 The second unit of Emergency Diesel Generator (A) for Unit 6 started up.

TEPCO reported to NISA that the pump for RHR (C) for Unit 5 started up and started to cooling Spent Fuel Storage Pool. (Power supply: Emergency Diesel Generator for Unit 6)

08:58 TEPCO reported to NISA the event (Unusual increase of radiation dose at the site boundary) falling under the Article 15 of the Act on Special Measures Concerning Nuclear Emergency Preparedness regarding Fukushima Dai-ichi NPS.

(March 20th)

23:30 Directive from Local Emergency Response Headquarters to the Prefectural Governor and the heads of cities, towns and villages (Tomioka Town, Hutaba Town, Okuma Town, Namie Town, Kawauchi Village, Naraha Town, Minamisouma City, Tamura City, Kazurao Village, Hirono Town, Iwaki City and Iidate Village) was issued

regarding the change of the reference value for the screening level for decontamination of radioactivity.

(March 21st)

07:45 Directive titled as "Administration of the stable Iodine" was issued from Local Emergency Response Headquarters to the Prefectural Governor and the heads of cities, towns and villages (Tomioka Town, Hutaba Town, Okuma Town, Namie Town, Kawauchi Village, Naraha Town, Minamisouma City, Tamura City, Kazurao Village, Hirono Town, Iwaki City and Iidate Village), which directs the above-mentioned governor and the heads to administer stable Iodine under the direction of the headquarters and in the presence of medical experts, and not to administer it on personal judgements.

16:45 Directive titled as "Ventilation for using heating equipments within the in-house evacuation zone" was issued from the Head of Local Emergency Response Headquarters to the Prefectural Governor and the heads of cities, towns and villages (Tomioka Town, Hutaba Town, Okuma Town, Namie Town, Kawauchi Village, Naraha Town, Minamisouma City, Tamura City, Kazurao Village, Hirono Town, Iwaki City and Iidate Village), which directs the above-mentioned governor and heads to publicly announce the guidance to the residents within the in-house evacuation zone, concerning the indoor use of heating equipments that require ventilation, in order to avoid poisoning from carbon monoxide and to reduce exposure.

17:50 Directive from the Head of Government Nuclear Emergency Response Headquarters to the Prefectural Governors of Fukushima, Ibaraki, Tochigi and Gunma was issued, which direct the above-mentioned governors to issue a request to relevant businesses and people to suspend shipment of spinach, *Kakina* (a green vegetable) and raw milk for the time being.

(March 22nd)

16:00 NISA received the response (Advice) from Nuclear Safety Commission Emergency Technical Advisory Body to the request for advice made by NISA, regarding the report from TEPCO titled as "The Results of Analysis of Seawater" dated March 22nd.

(March 25th)

NISA directed orally to the TEPCO regarding the exposure of workers at the turbine building of Unit 3 of Fukushima Dai-ichi Nuclear Power Station occurred on March 24th, to review immediately and to improve its radiation control measures from the viewpoint of preventing a recurrence.

< Possibility on radiation exposure (As of 12:30 March 25th) >

1. Exposure of residents

(1) Including the about 60 evacuees from Futaba Public Welfare Hospital to Nihonmatsu City Fukushima Gender Equality Centre, as the result of measurement of 133 persons at the Centre, 23 persons counted more than 13,000 cpm were decontaminated.

(2) The 35 residents transferred from Futaba Public Welfare Hospital to Kawamata Town Saiseikai Kawamata Hospital by private bus arranged by Fukushima Prefecture were judged to be not contaminated by the Prefectural Response Centre.

(3) As for the about 100 residents in Futaba Town evacuated by bus, the results of measurement for 9 of the 100 residents were as follows. The evacuees, moving outside the Prefecture (Miyagi Prefecture), were divided into two groups, which joined later to Nihonmatsu City Fukushima Gender Equality Centre.

No. of Counts	No. of Persons
18,000cpm	1
30,000-36,000cpm	1
40,000cpm	1
little less than 40,000cpm*	1
very small counts	5

*(These results were measured without shoes, though the first measurement exceeded 100,000cpm)

(4) The screening was started at the Off site Centre in Okuma Town from

March 12th to 15th. 162 people received examination until now. At the beginning, the reference value was set at 6,000cpm. 110 people were at the level below 6,000 cpm and 41 people were at the level of 6,000 cpm or more. When the reference value was increased to 13,000 cpm afterward, 8 people were at the level below 13,000 cpm and 3 people are at the level of 13,000 cpm or more.

The 5 out of 162 people examined were transported to hospital after being decontaminated.

(5) The Fukushima Prefecture carried out the evacuation of patients and personnel of the hospitals located within 10km area. The screening of all the members showed that 3 persons have the high counting rate. These members were transported to the secondary medical institute of exposure. As a result of the screening on 60 fire fighting personnel involved in the transportation activities, the radioactivity higher than twice of the back ground was detected on 3 members. Therefore, all the 60 members were decontaminated.

2. Exposure of workers

As for the workers conducting operations in Fukushima Dai-ichi NPS, the number of people who were at the level of exposure more than 100mSv was 14 (All the people were TEPCO's employees.), as of the morning of March 24th. Furthermore, on 24th, three workers (All the people were the subcontractor's employees.) who were laying cables in the turbine building of Unit 3 of the NPS were confirmed to be at the level of exposure more than 170mSv. In total, the number of workers who were at the level of exposure more than 100mSv becomes 17.

For two of the three workers who were laying cables, the attachment of radioactive material on the skin of both legs was confirmed. As the two workers were judged to have a possibility of beta ray burn, they were transferred to the Fukushima Medical University Hospital, and departed for the National Institute of Radiological Sciences in the Chiba Prefecture in the afternoon of March 25th.

Concerning the result of survey for the water that those workers stepped in, the dose rate on the surface of the water was about 400mSv/h and, as a result of gamma ray nuclide analysis of sampled water, the

concentration of radioactive nuclide of the sample was about 3.9×10^6 Bq/cm^3 in total of each nuclides.

3. Others

(1) Fukushima Prefecture has started the screening from 13 March. It is carried out by rotating the evacuation sites and at the 14 places (set up permanently) such as health offices. Up until March 22nd, the screening was done to 79,920 people. Among them, 98 people were above the 100,000cpm, but when measured these people again without clothes, etc., the counts decreased to 100,000cpm and below, and there was no case which affects health.

(2) 4 members of Self-Defence Force who worked in Fukushima Dai-ichi NPS were injured by explosion. One member was transferred to National Institute of Radiological Sciences. After the examination, judged that there were wounds but no risk for health from the exposure, the one was released from the hospital on March 17th. No other exposure of the Self-Defence Force member was confirmed at the Ministry of Defence.

(3) As for policeman, the decontaminations of two policemen were confirmed by the National Police Agency. Nothing unusual was reported.

(4) On March 24th, examinations of thyroid gland for 66 children aged from 1 to 15 years old were carried out. The result was at the level of exposure of no problem.

<Directive of screening levels for decontamination of radioactivity>

(1) On March 20th, the Local Emergency Response Headquarters issued the directive to change the reference value for the screening level for decontamination of radioactivity as the following to the Prefectural Governor and the heads of cities, towns and villages (Tomioka Town, Hutaba Town, Okuma Town, Namie Town, Kawauchi Village, Naraha Town, Minamisouma City, Tamura City, Kazurao Village, Hirono Town, Iwaki City and Iidate Village).

Old : 40 Bq/cm^2 measured by a gamma-ray survey meter or 6,000 cpm

New : 1 μ Sv/hour (dose rate at 10cm distance) or 100,000cpm equivalent

<Directives of administrating stable Iodine during evacuation>

(1) On March 16th, the Local Emergency Response Headquarters issued "Directive to administer the stable Iodine during evacuation from the evacuation area (20 km radius)" to the Prefectural Governor and the heads of cities, towns and villages (Tomioka Town, Hutaba Town, Okuma Town, Namie Town, Kawauchi Village, Naraha Town, Minamisouma City, Tamura City, Kazurao Village, Hirono Town, Iwaki City and Iidate Village).

(2) On March 21st, the Local Emergency Response Headquarters issued Directive titled as "Administration of the stable Iodine" to the Prefectural Governor and the heads of cities, towns and villages (Tomioka Town, Hutaba Town, Okuma Town, Namie Town, Kawauchi Village, Naraha Town, Minamisouma City, Tamura City, Kazurao Village, Hirono Town, Iwaki City and Iidate Village), which directs the above-mentioned governor and heads to administer stable Iodine under the direction of the headquarters and in the presence of medical experts, and not to administer it on personal judgements.

<Situation of the injured (As of 08:00 March 25th)>

1. Injury due to earthquake
   - Two employees (slightly)
   - Two subcontract employees (one fracture in both legs)
   - Two missing (TEPCO's employee, missing in the turbine building of Unit 4)
   - One emergency patient (According to the local prefecture, one patient of cerebral infarction was transported by the ambulance).
   - Ambulance was requested for one employee complaining the pain at left chest outside of control area (conscious).
   - Two employees complaining discomfort wearing full-face mask in the main control room were transported to Fukushima Dai-ni NPS for a consultation with an industrial doctor.

2. Injury due to the explosion of Unit 1 of Fukushima Dai-ichi NPS
   - Four employees were injured at the explosion and smoke of Unit 1 around turbine building (non-controlled area of radiation) and were examined by Kawauchi Clinic.

3. Injury due to the explosion of Unit 3 of Fukushima Dai-ichi NPS
   - Four TEPCO's employees
   - Three subcontractor employees
   - Four members of Self-Defence Force (one of them was transported to National Institute of Radiological Sciences considering internal possible exposure. The examination resulted in no internal exposure. The member was discharged from the institute on March 17th.)

4. Other injuries
   - A person who visited the clinic in Fukushima Dai-ni NPS from a transformer sub-station, claiming of a stomach ache, was transported to a clinic in Iwaki City, because the person was not contaminated.

<Situation of resident evacuation (As of 08:00 March 25th)>

At 11:00 March 15th, Prime Minister directed in-house stay to the residents in the area from 20 km to 30 km radius from Fukushima Dai-ichi NPS. The directive was conveyed to Fukushima Prefecture and related municipalities.

Regarding the evacuation as far as 20-km from Fukushima Dai-ichi NPS and 10-km from Fukushima Dai-ni NPS, necessary measures have already been taken.

- The in-house stay in the area from 20 km to 30 km from Fukushima Dai-ichi NPS is made fully known to the residents concerned.
- Cooperating with Fukushima Prefecture, livelihood support to the residents in the in-house stay area are implemented.

<Directive regarding foods and drinks>

Directive from the Head of Government Nuclear Emergency Response Headquarters to the Prefectural Governors of Fukushima, Ibaraki, Tochigi and Gunma was issued, which directed above-mentioned governors to suspend shipment and so on of the following products for the time being.

- March 21st : Spinach and *Kakina* (a green vegetable) (Fukushima, Ibaraki, Tochigi and Gunma Prefectures), Raw milk (Fukushima Prefecture)

- March 23rd : Raw milk and Parsley (Ibaraki Prefecture), non-head type leafy vegetables and head type leafy vegetables (Spinach, *Komatsuna* (a green vegetable) , etc.), flowerhead brassicas (Broccori, etc.) (※) and Turnip (Fukushima Prefecture)

  (※) Direction for restriction of intake was also issued on the same day as to non-head type leafy vegetables, head type leafy vegetable, and flowerhead brassiccas.

<Directive regarding the ventilation when using heating equipments in the aria of indoor evacuation >

On March 21st, Directive titled as "Ventilation for using heating equipments within the in-house evacuation zone" from the Head of Local Emergency Response Headquarters to the Prefectural Governor and the heads of cities, towns and villages (Tomioka Town, Hutaba Town, Okuma Town, Namie Town, Kawauchi Village, Naraha Town, Minamisouma City, Tamura City, Kazurao Village, Hirono Town, Iwaki City and Iidate Village) was issued, which directs those governor and heads to publicly announce the guidance to the residents within the in-house evacuation zone, concerning the indoor use of heating equipments that require ventilation, in order to avoid poisoning from carbon monoxide and to reduce exposure.

< Fire Bureaus' Activities>

- From 11:00 till around 14:00 on March 22nd, Niigata City Fire Bureau and Hamamatsu City Fire Bureau gave guidance to TEPCO as to the set up of large decontamination system.
- From 8:30 till 9:30, from 13:30 till 14:30 on March 23rd, Niigata City Fire Bureau and Hamamatsu City Fire Bureau gave guidance to TEPCO as to the operation of large decontamination system.

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News Release
Extract

経済産業省
Ministry of Economy, Trade and Industry

March 25, 2011
Nuclear and Industrial Safety Agency

Seismic Damage Information (the 50th Release)
(As of 08:00 March 25th, 2011)

Nuclear and Industrial Safety Agency (NISA) confirmed the current situation of Onagawa NPS, Tohoku Electric Power Co. Inc.; Fukushima Dai-ichi and Fukushima Dai-ni NPSs, Tokyo Electric Power Co. Inc. (TEPCO); Tokai Dai-ni NPS, Japan Atomic Power Co. Inc. as follows:

Major updates are as follows.

1. Exposure of Workers

On March 24th, three workers (All the people were the subcontractor's employees.) who were laying cables on the ground floor and the basement floor of the turbine building of Unit 3 were confirmed to be at the level of exposure more than 170mSv. Regarding the two of them, the attachment of radioactive material on the skin of both legs was confirmed. As the two workers were judged to have a possibility of beta ray burn, they were transferred to the Fukushima Medical University Hospital, and are to depart for the National Institute of Radiological Science in the Chiba Prefecture in the morning of March 25th.

Concerning the result of survey for the water that those workers stepped in, the dose rate on the surface of the water was about 400mSv/h and, as a result of gamma ray nuclide analysis of sampled water, the concentration of radioactive nuclide of the sample was about 3.9×10^{6} Bq/cm^{3} in total of each nuclides.

2. Action taken by NISA and other agencies

NISA directed orally to the TEPCO regarding the exposure of workers at the turbine building of Unit 3 of Fukushima Dai-ichi Nuclear Power Station occurred on March 24th, to review immediately and to improve its radiation control measures from the viewpoint of preventing a recurrence.

3. Notice of the Local Emergency Response Headquarters

On March 24th, examinations of thyroid gland for children were carried out at the following two clinics near the in-house evacuation area.

- Kawamata Town Health Center (within the area from 40km to 50km distance from Fukushima Dai-ichi NPS)
- Kawamata Town Yamakiya Branch Office (within the area from 30km to 40km distance from Fukushima Dai-ichi NPS)

[Result of the Examinations]

- The dose rate of all the 66 children including 14 infants from 1 to 6 years old) had no big difference from the level of the background and was at the level of no problem in light of the view of Nuclear Safety Commission. For all of them, there was no administration of stable Iodine as actual result.

4. Nuclear Power Stations (NPSs)

● Fukushima Dai-ichi NPS

- Seawater injection to the Spent Fuel Pool of Unit 4 via the Cooling and Purification Line was started. (06:05 March 25th)
- White smoke was confirmed to generate continuously from Units 1, 2 and 4. (Around 06:20 March 25th)

For more information:
NISA English Home Page
http://www.nisa.meti.go.jp/english/index.html