

Unit No.	Fukushima Daiichi Status Summary – 1350 EDT 04/8/2011 Update		Priority
1	Core	400 assemblies - damaged; RPV pres: (ch A=57.3 psig, ch B=115.0 psig) ↑ (NISA 4/8); RPV level: ~1/2 TAF (NISA 4/8); fresh water inject. 26.4 gpm↔ (TEPCo 4/7) via feedwater line using temp. elect. pump (IAEA 4/5); RPV temp: Btm Head 119.4°C↑, FW nozzle: 246.6°C↔ (NISA 4/8), On offsite AC power - CR Lighting for U-1, 2, 3 & 4 (JAIF 4/1);	1
	Containment	Primary: damage suspected, slow leakage, began injecting nitrogen gas at 1:30 AM JPT on 4/7 (JAIF 4/8). D/w pressure: 12.1 psig↑ (NISA 4/8) & 6830 rem/hr↓ (NISA 4/8, INPO attributes this to a failed instrument) . Torus press. 7.8 psig↑ (NISA 4/8) & 1220 rem/hr↔ (NISA 4/8). Stuck open SRV (Site Team & TEPCo). Secondary: severe damage from H ₂ explosion.	
	SF Pool	292 bundles (GEH); Temp: indicator failure (4/4 NISA) 24°C↑ (uncertain, overhead thermography) (JAIF 4/6), LVL: unconfirmed, Periodic spray using pumper (DOE 4/3),	
2	Core	548 assemblies - damaged; RPV pres: (ch A= -2.9 psig↓ , ch B= -2.9 psig↓) (NISA 4/8); RPV level: 3/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/8) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head (not avail) (TEPCo), FW nozzle 141.2°C↓ (NISA 4/8), On offsite AC power (NISA 4/3)	2
	Containment	Primary: damage suspected. D/w pressure: -0.2 psig↔ (NISA 4/8) & 2940 rem/hr↓ (NISA 4/8) Torus: 77 rem/hr↔ (NISA 4/8) Secondary: panels removed from side of Rx bldg to reduce H ₂ build-up. Site team feels an SRV is also stuck open, but TEPCo opinion currently differs. May begin to inject nitrogen gas (NHK World News)	
	SF Pool	587 bundles (GEH); Temp: 58.0°C↑ (JAIF 4/8); Level: fresh water injection via SF cooling system line using temp. elect. pump continues (IAEA 4/5) 36 Tons of water added (Site Team 4/7)	
3	Core	548 assemblies - damaged; RPV pressure: (ch A= -6 psig↓ , ch B= -11.4 psig) ↔ (NISA 4/8); RPV level: ~ 2/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/8) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head 110.8°C↔ ; FW nozzle: 88.8°C↔ (NISA 4/8) On offsite AC power (NISA 4/3).	3
	Containment	Primary: RST suspects failure. D/w pressure: 0.6 psig↔ (NISA 4/8) & 1880 rem/hr ↔ (NISA 4/8), Torus press. 10.3 psig↔ (NISA 4/8) & 73.8 rem/hr↔ (NISA 4/8) Secondary: severe damage from H ₂ explosion. May begin to inject nitrogen gas (NHK World News)	
	SF Pool	514 bundles (GEH) – damage suspected (JAIF 3/28); Temp: indicator failure (NISA 4/4) 60°C↑ (uncertain, overhead thermography) (JAIF 4/6); Level: fresh water injection via SF cooling system line & periodic spraying (IAEA 4/5) , Water to be added on 4/8 (Site Team 4/8)	
4	SF Pool	1331 bundles in SFP (GEH & NISA) Temp & Level: indicator failure (NISA 4/4) 57°C↑ (uncertain, overhead thermography) (JAIF 4/6); On offsite AC power (DOE 4/3), 38 tons of water added (Site Team 4/7)	4
5	Core	548 assemblies – no damage; RPV: pressure .4 psig↔ (NISA 4/8) ; Temp: 45.5°C↑ (NISA 4/8); Cold shutdown at 1430 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28) injection via normal make-up water (IAEA 3/31);	5
	SF Pool	946 bundles (JAIF); Temp: 34.7°C↓ (JAIF 4/8); Cooling capability recovered (JAIF 4/1)	
6	Core	764 assemblies – no damage; RPV: pressure .7 psig↔ (NISA 4/8) ; Temp: 22.7°C↔ (NISA 4/8); Cooling using RHR; Cold shutdown at 1927 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	6
	SF Pool	876 bundles (GEH); Temp: 30.5.0°C↑ (NISA 4/8); Cooling capability recovered (JAIF 4/1)	
Common SF Pool		6,000 bundles (GEH) maintained at 32.0°C↑ (IAEA 4/7) on normal cooling	7
*Notes		Following magnitude 7.4 earthquake 4/7@2330JST . No significant change in the readings of the monitoring posts of the Fukushima Dai-ichi nuclear power plant. (NISA 4/7)	

Summary Sheet Notes:

Basis for Assigned Priority to Units

PRIORITY 1 - Unit 1, maintaining containment is high priority

PRIORITY 2 - Unit 2, containment damaged

PRIORITY 3 - Unit 3, Primary containment may be intact. However,
flooding in turbine building contains I-131

PRIORITY 4 - Unit 4, due to the condition of its spent fuel pool

PRIORITY 5 - Unit 5, temperature is 36 C vs. 21 C in Unit 6.
Difference not significant. Cooling being maintained.

PRIORITY 6 - Unit 6, SPF cooling being maintained

Common SFP is low priority, adequately maintained.

Unit No.	Fukushima Daiichi Status Summary – 0840 EDT 04/9/2011 Update		Priority
1	Core	400 assemblies - damaged; RPV pres: (ch A= 59.4 psig↑, ch B= 119.6 psig ↑ - NISA 4/9); RPV level: ~1/2 TAF (NISA 4/8); fresh water inject. 26.4 gpm↔ (NISA 4/9) via feedwater line using temp. elect. pump (IAEA 4/5); RPV temp: Btm Head 120.1°C↑, FW nozzle: 235.2 °C↓ (NISA 4/9), On offsite AC power - CR Lighting for U-1, 2, 3 & 4 (JAIF 4/1);	1
	Containment	Primary: damage suspected, slow leakage, nitrogen gas injection on 4/7 (JAIF 4/8). D/w pres: 12.9 psig↔ (NISA 4/9) & 6830 rem/hr↓ (testing shows malfunctioning monitor - Site Team 4/8, NISA 4/8). Torus press. 8.5 psig↑ (NISA 4/9) & 1190 rem/hr↔ (NISA 4/9). Stuck open SRV (Site Team & TEPCo). Secondary: severe damage from H ₂ explosion.	
	SF Pool	292 bundles (GEH); Temp: indicator failure (4/4 NISA) 24°C↑ (uncertain, overhead thermography) (JAIF 4/6), LVL: unconfirmed, Periodic spray using pumper (DOE 4/3),	
2	Core	548 assemblies - damaged; RPV pres: (ch A= -2.9 psig↓, ch B= -3.6 psig↓ - NISA 4/9); atmospheric pressure since 3/18/11 (IAEA 4/8) RPV level: 3/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/8) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head (not avail), FW nozzle 144.5 °C↑ (NISA 4/9), On offsite AC power (NISA 4/3)	2
	Containment	Primary: damage suspected. D/w pres: -0.9 psig↔ (NISA 4/9) & 2920 rem/hr↓ (NISA 4/9) Torus: 74.3 rem/hr↔ (NISA 4/9) Secondary: panels removed from Rx bldg to reduce H ₂ build-up. Site team feels an SRV is also stuck open, but TEPCo opinion currently differs.	
	SF Pool	587 bundles (GEH); Temp: 48.0°C↓ (NISA 4/9); Level: fresh water injection via SF cooling system line using temp. elect. pump continues (IAEA 4/5) 36 Tons of water added (Site Team 4/7)	
3	Core	548 assemblies - damaged; RPV pres: (ch A= -6 psig↓, ch B= -11.7 psig ↑ - NISA 4/9); atmospheric press since 3/22/11 (IAEA 4/8) RPV level: ~ 2/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/9) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head 107.5°C↓; FW nozzle: 96.6 °C↓ (NISA 4/9) On offsite AC power (NISA 4/3).	3
	Containment	Primary: RST suspects failure. D/w pres: 0.6 psig↔ (NISA 4/9) & 1840 rem/hr↓ (NISA 4/9), Torus press. 10.3 psig↔ (NISA 4/9) & 71.7 rem/hr↓ (NISA 4/8) Secondary: severe damage from H ₂ explosion.	
	SF Pool	514 bundles (GEH) – damage suspected (JAIF 3/28); Temp: indicator failure (NISA 4/4) 60°C↑ (uncertain, overhead thermography - JAIF 4/6); Level: Fresh water spray via concrete pump 4/8 (TEPCO 4/9)	
4	SF Pool	1331 bundles in SFP (GEH & NISA) Temp & Level: indicator failure (NISA 4/4) 57°C↑ (uncertain, overhead thermography - JAIF 4/6); On offsite AC power (DOE 4/3), 38 tons of fresh water added via concrete pump UTC 4/7, additional spraying will be conducted as needed (IAEA 4/8)	4
5	Core	548 assemblies – no damage; RPV: pressure 1.0 psig↔ (NISA 4/9); Temp: 45.5°C↑ (NISA 4/8); Cold shutdown at 1430 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	5
	SF Pool	946 bundles (JAIF); Temp: 34.7°C↔ (NISA 4/9); Cooling capability recovered (JAIF 4/1)	
6	Core	764 assemblies – no damage; RPV: pressure 1.2 psig↔ (NISA 4/9); Temp: 22.7°C↔ (NISA 4/8); Cooling using RHR; Cold shutdown at 1927 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	6
	SF Pool	876 bundles (GEH); Temp: 23.0 °C↑ (NISA 4/9); Cooling capability recovered (JAIF 4/1)	
Common SF Pool		6,000 bundles (GEH) maintained at 32.0°C↑ (IAEA 4/7) on normal cooling	7
*Notes		Following magnitude 7.4 earthquake 4/7@2330JST . No significant change in the readings of the monitoring posts of the Fukushima Dai-ichi nuclear power plant (NISA 4/7)	

3/2/11
BAP

Summary Sheet Notes:

Basis for Assigned Priority to Units

PRIORITY 1 - Unit 1, maintaining containment is high priority

PRIORITY 2 - Unit 2, containment damaged

PRIORITY 3 - Unit 3, Primary containment may be intact. However,
flooding in turbine building contains I-131

PRIORITY 4 - Unit 4, due to the condition of its spent fuel pool

PRIORITY 5 - Unit 5, temperature is 36 C vs. 21 C in Unit 6.
Difference not significant. Cooling being maintained.

PRIORITY 6 - Unit 6, SPF cooling being maintained

Common SFP is low priority, adequately maintained.

7/1/11

Unit No.	Fukushima Daiichi Status Summary – 1340 EDT 04/9/2011 Update		Priority
1	Core	400 assemblies - damaged; RPV pres: (ch A=59.8 psig↔ , ch B=120.3 psig ↔ - NISA 4/9); RPV level: ~1/2 TAF (NISA 4/8); fresh water inject. 26.4 gpm↔ (NISA 4/9) via feedwater line using temp. elect. pump (IAEA 4/5); RPV temp: Btm Head 120.3°C↔ , FW nozzle: 232.0°C↓ (NISA 4/9), On offsite AC power - CR Lighting for U-1, 2, 3 & 4 (JAIF 4/1);	1
	Containment	Primary: damage suspected, slow leakage, nitrogen gas injection on 4/7 (JAIF 4/8). D/w pres: 12.9 psig↔ (NISA 4/9) & 6830 rem/hr↔ (testing shows malfunctioning monitor - Site Team 4/8, NISA 4/8). Torus press. 8.5 psig↔ (NISA 4/9) & 1190 rem/hr↔ (NISA 4/9). Stuck open SRV (Site Team & TEPCo). Secondary: severe damage from H ₂ explosion.	
	SF Pool	292 bundles (GEH); Temp: indicator failure (4/4 NISA) 24°C↑ (uncertain, overhead thermography - JAIF 4/6), LVL: unconfirmed, Periodic spray using pumper (DOE 4/3),	
2	Core	548 assemblies - damaged; RPV pres: (ch A= -2.6 psig↓ , ch B= -4.0 psig↓ - NISA 4/9); RPV level: 3/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/8) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head (not avail), FW nozzle 146.0°C↔ (NISA 4/9), On offsite AC power (NISA 4/3)	2
	Containment	Primary: damage suspected. D/w pres: -0.9 psig↔ (NISA 4/9) & 2920 rem/hr↓ (NISA 4/9) Torus: 74.3 rem/hr↔ (NISA 4/9) Secondary: panels removed from Rx bldg to reduce H ₂ build-up. Site team feels an SRV is also stuck open, but TEPCo opinion currently differs.	
	SF Pool	587 bundles (GEH); Temp: 47.0°C↔ (NISA 4/9); Level: fresh water injection via SF cooling system line using temp. elect. pump continues (IAEA 4/5) 36 Tons of water added (Site Team 4/7)	
3	Core	548 assemblies - damaged; RPV pres: (ch A= -1.6 psig↓ , ch B= -11.5 psig ↔ - NISA 4/9); RPV level: ~ 2/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/9) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head 109.8°C↑; FW nozzle: 97.1°C↔ (NISA 4/9) On offsite AC power (NISA 4/3).	3
	Containment	Primary: RST suspects failure. D/w pres: 0.6 psig↔ (NISA 4/9) & 1840 rem/hr↓ (NISA 4/9), Torus press. 10.2 psig↔ (NISA 4/9) & 71.7 rem/hr↓ (NISA 4/8) Secondary: severe damage from H ₂ explosion.	
	SF Pool	514 bundles (GEH) – damage suspected (JAIF 3/28); Temp: indicator failure (NISA 4/4) 60°C↑ (uncertain, overhead thermography - JAIF 4/6); Level: Fresh water spray via concrete pump 4/8 (TEPCO 4/9)	
4	SF Pool	1331 bundles in SFP (GEH & NISA) Temp & Level: indicator failure (NISA 4/4) 57°C↑ (uncertain, overhead thermography - JAIF 4/6); On offsite AC power (DOE 4/3), fresh water added via concrete pump 4/9, additional spraying will be conducted as needed (TEPCO 4/9).	4
5	Core	548 assemblies – no damage; RPV: pressure 0.7 psig↓ (NISA 4/9); Temp: 50.9°C↑ (NISA 4/9); Cold shutdown at 1430 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	5
	SF Pool	946 bundles (JAIF); Temp: 31.8°C↔ (NISA 4/9); Cooling capability recovered (JAIF 4/1)	
6	Core	764 assemblies – no damage; RPV: pressure 1.1 psig↔ (NISA 4/9); Temp: 23.1°C↔ (NISA 4/9); Cooling using RHR; Cold shutdown at 1927 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	6
	SF Pool	876 bundles (GEH); Temp: 23.0°C↑ (NISA 4/9); Cooling capability recovered (JAIF 4/1)	
Common SF Pool		6,000 bundles (GEH) maintained at 32.0°C↑ (IAEA 4/7) on normal cooling	7
Notes			

Summary Sheet Notes:

Basis for Assigned Priority to Units

PRIORITY 1 - Unit 1, maintaining containment is high priority

PRIORITY 2 - Unit 2, containment damaged

PRIORITY 3 - Unit 3, Primary containment may be intact. However, flooding in turbine building contains I-131

PRIORITY 4 - Unit 4, due to the condition of its spent fuel pool

PRIORITY 5 - Unit 5, temperature is 36 C vs. 21 C in Unit 6.
Difference not significant. Cooling being maintained.

PRIORITY 6 - Unit 6, SPF cooling being maintained

Common SFP is low priority, adequately maintained.

Unit No.	Fukushima Daiichi Status Summary – 1340 EDT 04/9/2011 Update		Priority
1	Core	400 assemblies - damaged; RPV pres: (ch A=59.8 psig↔ , ch B=120.3 psig ↔ - NISA 4/9); RPV level: ~1/2 TAF (NISA 4/8); fresh water inject. 26.4 gpm↔ (NISA 4/9) via feedwater line using temp. elect. pump (IAEA 4/5); RPV temp: Btm Head 120.3°C↔ , FW nozzle: 232.0°C↓ (NISA 4/9), On offsite AC power - CR Lighting for U-1, 2, 3 & 4 (JAIF 4/1);	1
	Containment	Primary: damage suspected, slow leakage, nitrogen gas injection on 4/7 (JAIF 4/8). D/w pres: 12.9 psig↔ (NISA 4/9) & 6830 rem/hr↔ (testing shows malfunctioning monitor - Site Team 4/8, NISA 4/8). Torus press. 8.5 psig↔ (NISA 4/9) & 1190 rem/hr↔ (NISA 4/9). Stuck open SRV (Site Team & TEPCo). Secondary: severe damage from H ₂ explosion.	
	SF Pool	292 bundles (GEH); Temp: indicator failure (4/4 NISA) 24°C↑ (uncertain, overhead thermography - JAIF 4/6), LVL: unconfirmed, Periodic spray using pumper (DOE 4/3),	
2	Core	548 assemblies - damaged; RPV pres: (ch A= -2.6 psig↓ , ch B= -4.0 psig↓ - NISA 4/9); RPV level: 3/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/8) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head (not avail), FW nozzle 146.0°C↔ (NISA 4/9), On offsite AC power (NISA 4/3)	2
	Containment	Primary: damage suspected. D/w pres: -0.9 psig↔ (NISA 4/9) & 2920 rem/hr↓ (NISA 4/9) Torus: 74.3 rem/hr↔ (NISA 4/9) Secondary: panels removed from Rx bldg to reduce H ₂ build-up. Site team feels an SRV is also stuck open, but TEPCo opinion currently differs.	
	SF Pool	587 bundles (GEH); Temp: 47.0°C↔ (NISA 4/9); Level: fresh water injection via SF cooling system line using temp. elect. pump continues (IAEA 4/5) 36 Tons of water added (Site Team 4/7)	
3	Core	548 assemblies - damaged; RPV pres: (ch A= -1.6 psig↓ , ch B= -11.5 psig ↔ - NISA 4/9); RPV level: ~ 2/5 TAF (NISA 4/8); freshwater injection 30.8 gpm↔ (NISA 4/9) via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head 109.8°C↑; FW nozzle: 97.1°C↔ (NISA 4/9) On offsite AC power (NISA 4/3).	3
	Containment	Primary: RST suspects failure. D/w pres: 0.6 psig↔ (NISA 4/9) & 1840 rem/hr↓ (NISA 4/9), Torus press. 10.2 psig↔ (NISA 4/9) & 71.7 rem/hr↓ (NISA 4/8) Secondary: severe damage from H ₂ explosion.	
	SF Pool	514 bundles (GEH) – damage suspected (JAIF 3/28); Temp: indicator failure (NISA 4/4) 60°C↑ (uncertain, overhead thermography - JAIF 4/6); Level: Fresh water spray via concrete pump 4/8 (TEPCO 4/9)	
4	SF Pool	1331 bundles in SFP (GEH & NISA) Temp & Level: indicator failure (NISA 4/4) 57°C↑ (uncertain, overhead thermography - JAIF 4/6); On offsite AC power (DOE 4/3), fresh water added via concrete pump 4/9, additional spraying will be conducted as needed (TEPCO 4/9).	4
5	Core	548 assemblies – no damage; RPV: pressure 0.7 psig↓ (NISA 4/9); Temp: 50.9°C↑ (NISA 4/9); Cold shutdown at 1430 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	5
	SF Pool	946 bundles (JAIF); Temp: 31.8°C↔ (NISA 4/9); Cooling capability recovered (JAIF 4/1)	
6	Core	764 assemblies – no damage; RPV: pressure 1.1 psig↔ (NISA 4/9); Temp: 23.1°C↔ (NISA 4/9); Cooling using RHR; Cold shutdown at 1927 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	6
	SF Pool	876 bundles (GEH); Temp: 23.0°C↑ (NISA 4/9); Cooling capability recovered (JAIF 4/1)	
Common SF Pool		6,000 bundles (GEH) maintained at 32.0°C↑ (IAEA 4/7) on normal cooling	7
Notes			

4/10/2011

Summary Sheet Notes:

Basis for Assigned Priority to Units

PRIORITY 1 - Unit 1, maintaining containment is high priority

PRIORITY 2 - Unit 2, containment damaged

PRIORITY 3 - Unit 3, Primary containment may be intact. However,
flooding in turbine building contains I-131

PRIORITY 4 - Unit 4, due to the condition of its spent fuel pool

PRIORITY 5 - Unit 5, temperature is 36 C vs. 21 C in Unit 6.
Difference not significant. Cooling being maintained.

PRIORITY 6 - Unit 6, SPF cooling being maintained

Common SFP is low priority, adequately maintained.

Unit No.	Fukushima Daiichi Status Summary – 0600 EDT 04/10/2011 Update		Priority
1	Core	400 assemblies - damaged; RPV pres: (ch A=59.47 ↑ psia ch B=123 psia ↑ - NISA 4/10); RPV level: ~1/2 TAF (NISA 4/8), <u>Level A -1.55m Level B -1.6m below top of fuel rods (NISA 4/10)</u> ; fresh water inject. <u>26.4 gpm↔ (NISA 4/10)</u> via feedwater line using temp. elect. pump (IAEA 4/5); RPV temp: <u>Btm Head 120.6°C ↑, FW nozzle: 227.7°C ↓ (NISA 4/10)</u> , On offsite AC power - CR Lighting for U-1, 2, 3 & 4 (JAIF 4/1);	1
	Containment	Primary: damage suspected, slow leakage, nitrogen gas injection on 4/7 (JAIF 4/8). D/w pres: <u>13.6 psig ↑ (NISA 4/10)</u> & 6830 rem/hr↔ (testing shows malfunctioning monitor - Site Team 4/8, NISA 4/8). Torus press. <u>9.23 psig ↑ (NISA 4/10)</u> & <u>1160 rem/hr ↓ (NISA 4/10)</u> . Stuck open SRV (Site Team & TEPCo). Secondary: severe damage from H ₂ explosion.	
	SF Pool	292 bundles (GEH); Temp: indicator failure (4/4 NISA) 24°C ↑ (uncertain, overhead thermography - JAIF 4/6), LVL: Periodic spray using pumper (DOE 4/3),	
2	Core	548 assemblies - damaged; RPV pres: (ch A= -2.9psia ↑ ch D= -3.63 psia ↓ (NISA 4/10); RPV level: 3/5 TAF (NISA 4/8), <u>-1.45m below top of fuel (NISA 4/10)</u> ; freshwater injection <u>30.82 gpm↔ (NISA 4/10)</u> via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: Btm Head (not avail), FW nozzle <u>149.4°C ↑ (NISA 4/10)</u> , On offsite AC power (NISA 4/3)	2
	Containment	Primary: damage suspected. D/w pres: <u>-0.92 psig ↑ (NISA 4/10)</u> & 2900 rem/hr ↓ (NISA 4/10) <u>Torus: 73.7 rem/hr ↓ (NISA 4/10)</u> . Secondary: panels removed from Rx bldg to reduce H ₂ build-up. Site team feels an SRV is also stuck open, but TEPCo opinion currently differs.	
	SF Pool	587 bundles (GEH); Temp: <u>47°C ↓ (NISA 4/10)</u> ; Level: fresh water injection via SF cooling system line using temp. elect. pump continues (IAEA 4/5) 36 Tons of water added (Site Team 4/7)	
3	Core	548 assemblies - damaged; RPV pres: (ch A= -1.31 psia ↓, ch C= -11.17 ↓ psia (NISA 4/10); RPV level: ~ 2/5 TAF (NISA 4/8) <u>Level A -1.9 m Level B-2.25m below top of fuel (NISA 4/10)</u> ; freshwater injection <u>30.82 gpm↔ (NISA 4/10)</u> via fire ext. line using temp. elect pump (IAEA 4/5) RPV temp: <u>Btm Head 110.8°C ↑; FW nozzle: 91.7°C ↑ (NISA 4/10)</u> On offsite AC power (NISA 4/3).	3
	Containment	Primary: RST suspects failure. D/w pres: <u>.7 ↑ psig (NISA 4/10)</u> & 1810 rem/hr ↓ (NISA 4/10), <u>Torus press. 10.2 psig↔ (NISA 4/10)</u> & <u>70.3 rem/hr ↓ (NISA 4/10)</u> . Secondary: severe damage from H ₂ explosion.	
	SF Pool	514 bundles (GEH) – damage suspected (JAIF 3/28); Temp: indicator failure (NISA 4/4) 60°C ↑ (uncertain, overhead thermography - JAIF 4/6); Level: Fresh water spray via concrete pump 4/8 (TEPCO 4/9)	
4	SF Pool	1331 bundles in SFP (GEH & NISA) Temp & Level: indicator failure (NISA 4/4) 57°C ↑ (uncertain, overhead thermography - JAIF 4/6); On offsite AC power (DOE 4/3), fresh water added via concrete pump 4/9, additional spraying will be conducted as needed (TEPCO 4/9).	4
5	Core	548 assemblies – no damage; RPV: pressure <u>1.02 psia ↑ (NISA 4/10)</u> ; Temp: <u>33.6 ↓ (NISA 4/10)</u> ; Level: <u>2.09 m (NISA 4/10)</u> ; Cold shutdown at 1430 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	5
	SF Pool	946 bundles (JAIF); Temp: <u>35.2°C ↑ (NISA 4/10)</u> ; Cooling capability recovered (JAIF 4/1)	
6	Core	764 assemblies – no damage; RPV: pressure <u>0.73 psia ↓ (NISA 4/10)</u> ; Temp: <u>22.3°C ↓ (NISA 4/10)</u> ; Level: <u>1.56 m (NISA 4/10)</u> ; Cooling using RHR; Cold shutdown at 1927 JDT 3/20 (NISA); On offsite AC power (IAEA 3/28); injection via normal make-up water (IAEA 3/31);	6
	SF Pool	876 bundles (GEH); Temp: <u>29.0°C ↑ (NISA 4/10)</u> ; Cooling capability recovered (JAIF 4/1)	
Common SF Pool		6,000 bundles (GEH) maintained at 32.0°C ↑ (IAEA 4/7) on normal cooling	7
Notes			

6/1/11
JAP

Summary Sheet Notes:

Basis for Assigned Priority to Units

PRIORITY 1 - Unit 1, maintaining containment is high priority

PRIORITY 2 - Unit 2, containment damaged

PRIORITY 3 - Unit 3, Primary containment may be intact. However,
flooding in turbine building contains I-131

PRIORITY 4 - Unit 4, due to the condition of its spent fuel pool

PRIORITY 5 - Unit 5, temperature is 36 C vs. 21 C in Unit 6.
Difference not significant. Cooling being maintained.

PRIORITY 6 - Unit 6, SPF cooling being maintained

Common SFP is low priority, adequately maintained.

From: [HOO Hoc](#)
To: [HOO Hoc](#)
Subject: FYI: New ENAC Information for March 15, 2011 - Corrected
Date: Tuesday, March 15, 2011 7:17:58 AM
Attachments: [Meteo Products 2011-03-15 0300 - RSMC Tokyo\[1\].pdf](#)
[Letter - Summary of reactor unit status at 2011 15-March Daiichi Unit 4 Radiation UTC\[1\].pdf](#)
[Letter - Summary of reactor unit status at 2300 14-March Daiichi\[1\].pdf](#)
[nisa press release 15-March-2011\[1\].pdf](#)
[Attachment 3 to METI PR 24 Japanese\[1\].pdf](#)
[Attachment 2 to METI PR 24 Japanese\[1\].pdf](#)
[Attachment 1 to METI PR 24 Japanese\[1\].pdf](#)
[Attachment 4 to METI PR 24 Japanese\[1\].pdf](#)
[METI Press Release 24 in Japanese\[1\].pdf](#)
[FAX Release Radioactivity Unit 4 Fukushima Daiichi NPP 20110315 0724UTC\[1\].pdf](#)

Please see the attached new information we retrieved from the IAEA ENAC site.

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

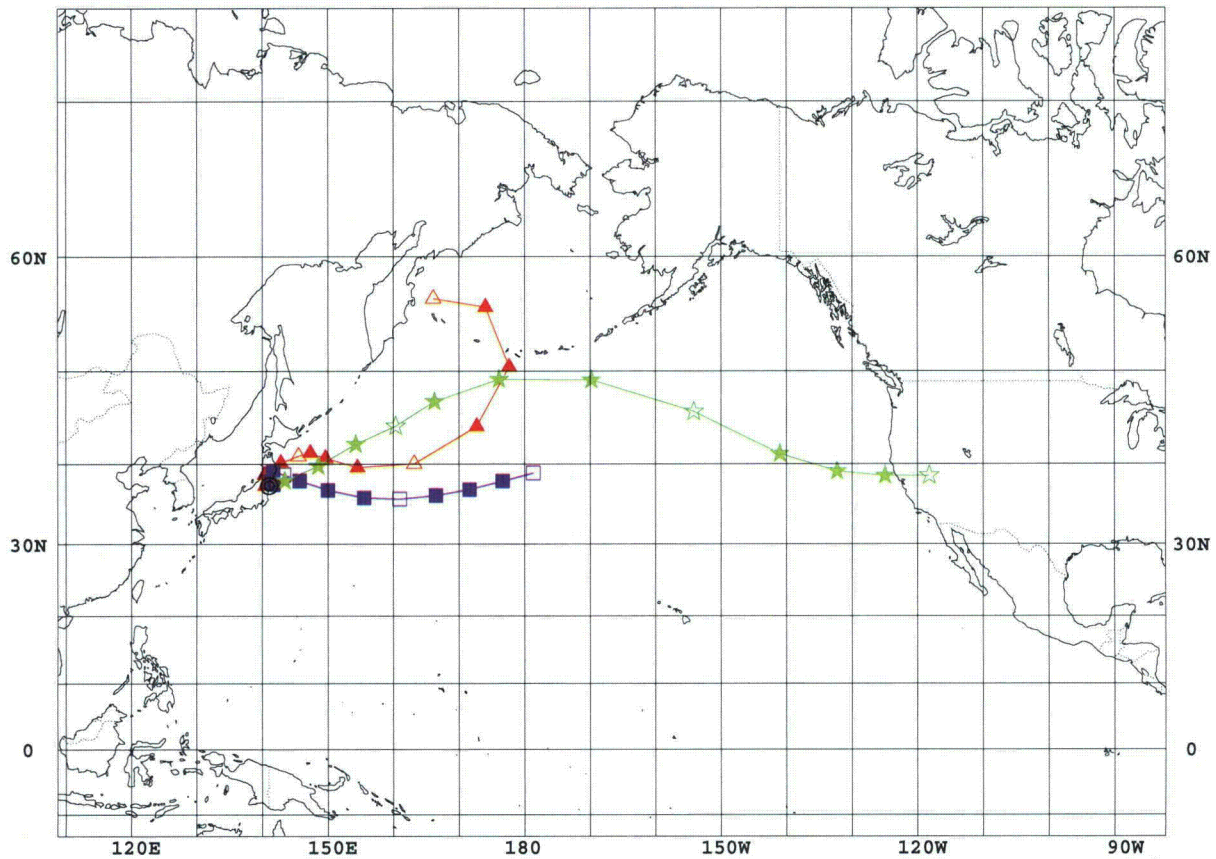


Handwritten signature/initials in blue ink, possibly reading "HOO/HOC".

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

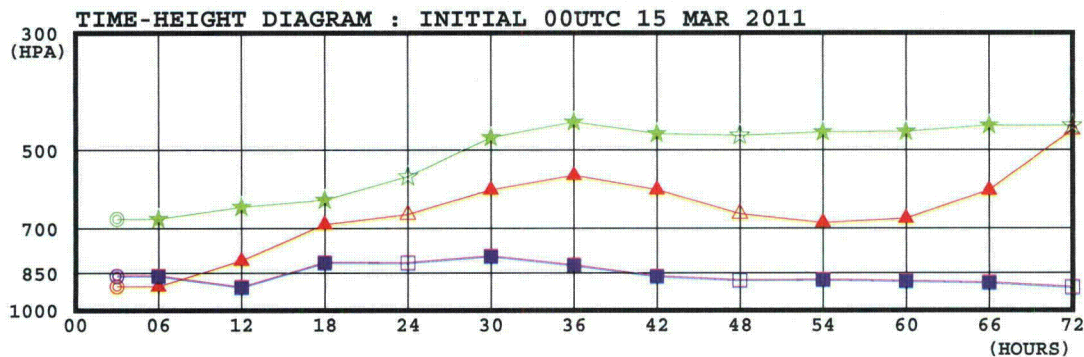
3-D TRAJECTORY

FROM 03UTC 15 MAR 2011 TO 00UTC 18 MAR 2011



(ISSUED 0435UTC 15 MAR 2011)

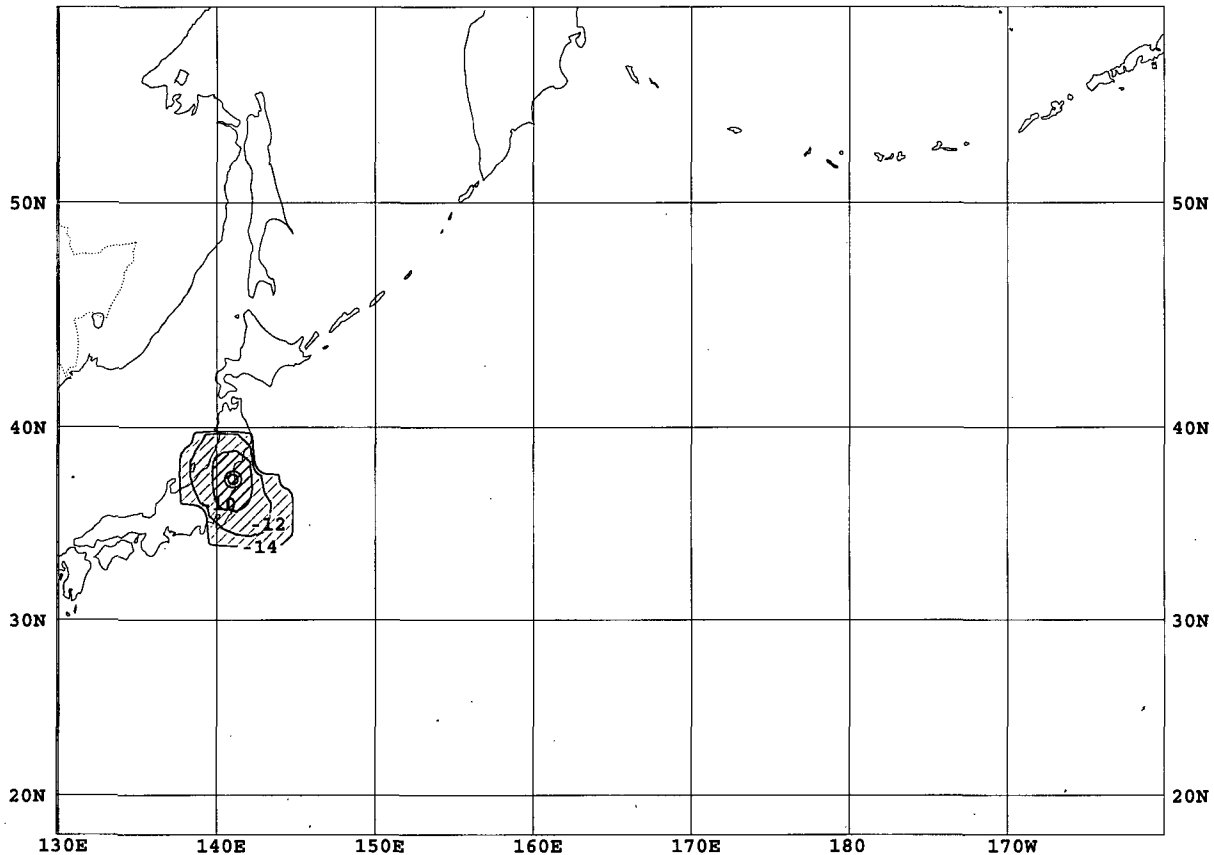
- ▲— INITIAL HEIGHT = 500M ABOVE THE SURFACE
- INITIAL HEIGHT = 1500M ABOVE THE SURFACE
- ★— INITIAL HEIGHT = 3000M ABOVE THE SURFACE
- MARKED WITH TIME INTERVAL OF 6 HOURS
- ◎ SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN



☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TIME INTEGRATED SURFACE - 500M LAYER CONCENTRATION

INTEGRATED FROM 03UTC 15 MAR 2011
TO 00UTC 16 MAR 2011



(ISSUED 0435UTC 15 MAR 2011)

ASSUMED POLLUTANT RELEASED : CS-137
START OF THE EMISSION : 0300UTC 15 MAR 2011
END OF THE EMISSION : 0300UTC 18 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ.S/M3)
MAXIMUM : 4.86E-9 (BQ.S/M3)
CONTOURS: 1E-10, 1E-12, 1E-14

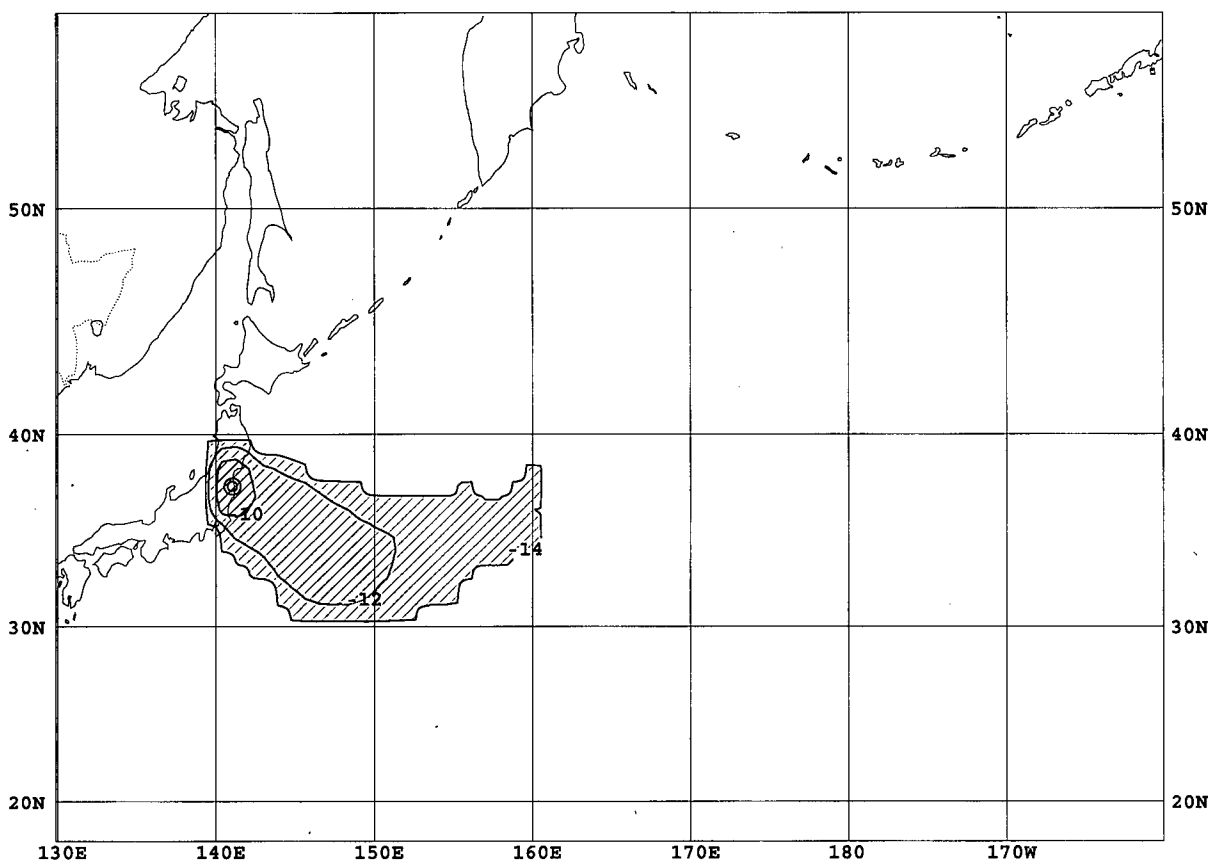
CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 2 / 5

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TIME INTEGRATED SURFACE - 500M LAYER CONCENTRATION

INTEGRATED FROM 00UTC 16 MAR 2011
TO 00UTC 17 MAR 2011



(ISSUED 0435UTC 15 MAR 2011)

ASSUMED POLLUTANT RELEASED : CS-137
START OF THE EMISSION : 0300UTC 15 MAR 2011
END OF THE EMISSION : 0300UTC 18 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ.S/M3)
MAXIMUM : 3.32E-9 (BQ.S/M3)
CONTOURS: 1E-10, 1E-12, 1E-14

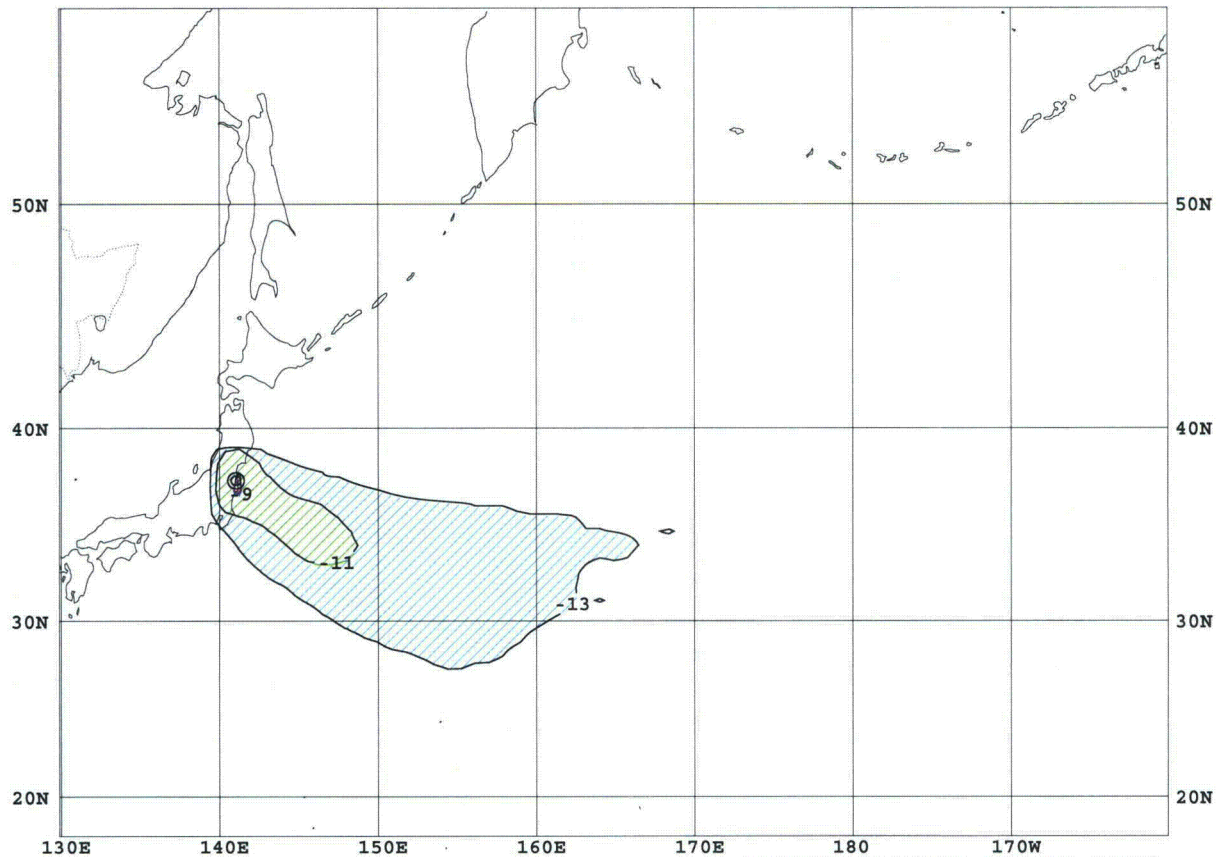
CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 3 / 5

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TIME INTEGRATED SURFACE - 500M LAYER CONCENTRATION

INTEGRATED FROM 00UTC 17 MAR 2011
TO 00UTC 18 MAR 2011



(ISSUED 0435UTC 15 MAR 2011)

ASSUMED POLLUTANT RELEASED : CS-137
START OF THE EMISSION : 0300UTC 15 MAR 2011
END OF THE EMISSION : 0300UTC 18 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ.S/M3)
MAXIMUM : 1.33E-9 (BQ.S/M3)
CONTOURS: 1E-9, 1E-11, 1E-13

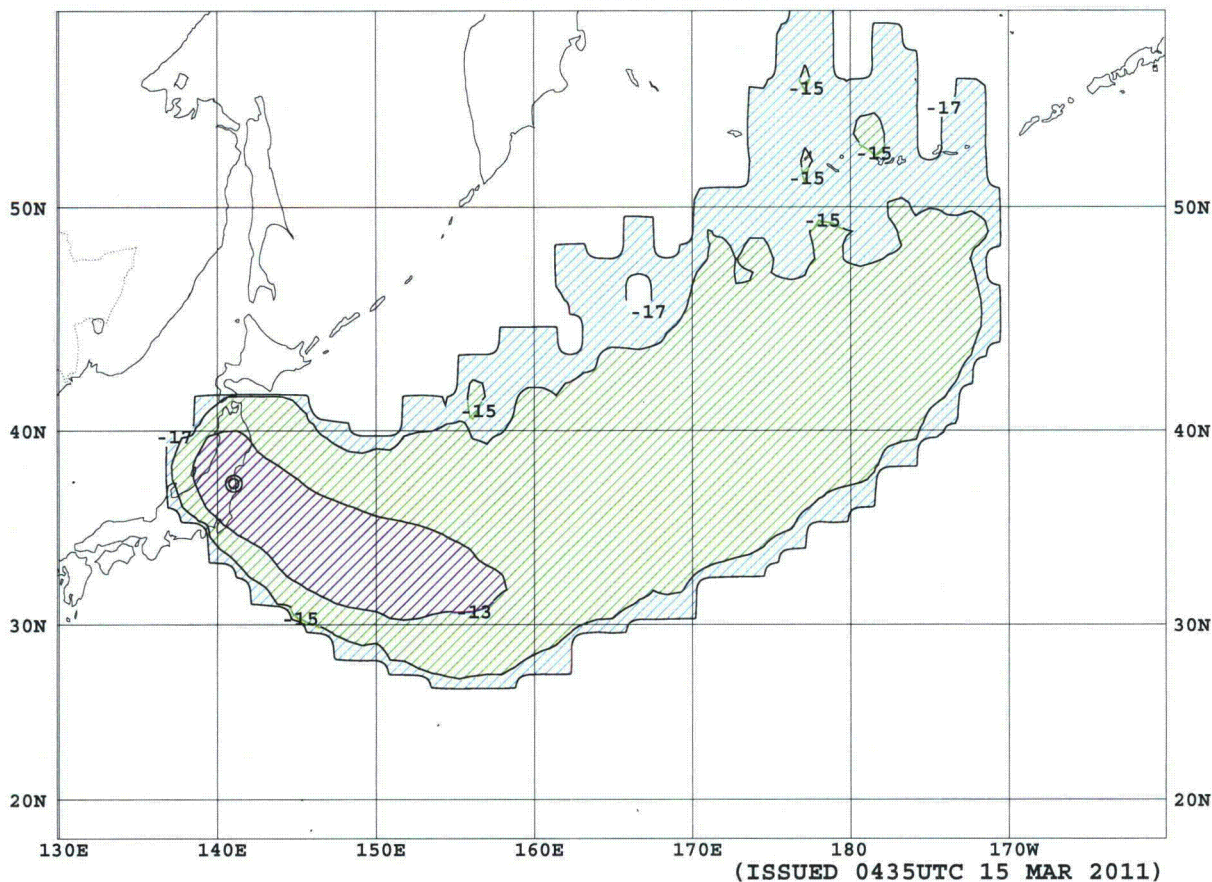
CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 4 / 5

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TOTAL (WET AND DRY) DEPOSITION

INTEGRATED FROM 03UTC 15 MAR 2011
TO 00UTC 18 MAR 2011



ASSUMED POLLUTANT RELEASED : CS-137
START OF THE EMISSION : 0300UTC 15 MAR 2011
END OF THE EMISSION : 0300UTC 18 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ/M2)
MAXIMUM : 8.99E-12 (BQ/M2)
CONTOURS: 1E-13 , 1E-15 , 1E-17

CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 5 / 5



INCIDENT AND EMERGENCY CENTRE

Subject: Release of radioactivity from Unit 4 of Fukushima Daiichi nuclear power plant

At 04:50 UTC on 15 March 2011 the IAEA was informed by the Japanese authorities that the spent fuel storage pond at Unit 4 of the Daiichi nuclear power plant is on fire and radioactivity is being released directly into the atmosphere. Dose rates up to 400 millisievert per hour have been reported at the site. There is the possibility that the fire has been caused by a hydrogen explosion.

The IAEA has contacted the World Meteorological Organization and has asked that the results of atmospheric models be circulated to all Member States.

The IAEA will issue further information as soon as it becomes available.

Günther Winkler

Emergency Response Manager

15-March-2011 05:10 UTC

IAEA Incident and Emergency Centre



INCIDENT AND EMERGENCY CENTRE

Subject: Status of the Fukushima Daiichi nuclear power plant

The Incident and Emergency Centre (IEC) is continuing to monitor the status of the nuclear power plants in Japan following the earthquake.

Based on information received by 01:00 UTC on March 15, 2011 the following update for the three reactor units at the Fukushima Daiichi nuclear power plant is provided:

Unit 1

The reactor is being maintained shutdown. There is currently neither off-site electrical power supply nor diesel generators providing power to Unit 1. Work continues to restore power to the plant. Currently mobile power generators are in use.

The water level in the reactor remains out of the measuring range, but at least 170 cm below the top of the core.

The injection of seawater and boron into the reactor vessel commenced at 11:20 UTC March 12 using a special piping configuration. Following this they commenced filling containment with sea water. At 16:10 UTC, 13 March the injection of sea water was interrupted due to low level in a sea water supply reservoir. As of 13:00 UTC, IAEA was informed that sea water injection has recommenced.

There is currently no updated information on the status of spent fuel and the structural integrity of primary containment.

Unit 2

The reactor is being maintained shutdown. There is currently neither off-site power supply nor diesel generators providing power to Unit 2. Work continues to restore power to the plant. Currently mobile power generators are in use.

At 04:25 UTC the reactor coolant function was lost, due to the loss of Reactor Core Isolation Cooling system (RCIC).

Based on the loss of reactor coolant function and increase of pressure in the reactor vessel TEPCO decided that the conditions described in Article 15 on Special Measures Concerning Nuclear Emergency Preparedness were met.

By 08:16 UTC the water level had decreased to the top of the core. Pressure inside the reactor increased and relief valves were activated. Despite the injection of sea water which started at 11:05 UTC, the water level was reported to be below the measurable level by 11:40 UTC. The IAEA was informed by the official contact point that 'a sound of an explosion was heard at Fukushima Daiichi Unit 2 at 21:10 UTC on March 14'. The report also states that there is a possibility that the suppression chamber may have been damaged due to this explosion. Further details have been

requested. At 00:55 UTC an evaluation reached the IAEA about the amount of core damage is evaluated is less than 5% as of 13:50 UTC on March 14.

Unit 3

The reactor is being maintained shutdown. There is currently neither off-site power supply nor diesel generators providing power to Unit 3.

On 14 March:

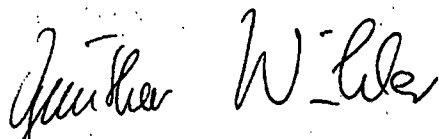
It was reported at 11:50 UTC that the reactor water level is between -190 to - 230 cm below the top of the core and it did not change considerably since 05:00 UTC. The reported pressure in the reactor pressure vessel was 0.183 MPa and the containment pressure was 355 MPaabs.

Updated information was provided at 20:05 on the number of injuries during the earlier explosion. According to the update total 11 people were injured, and 1 person was taken to the National Institute of Radiological Sciences for evaluation of internal exposure.

Radiation protection

Elevated radiation levels up to several hundred times above normal continue to be found at the boundary off the site, in particular at the monitoring station MP3 to the North West.

Evacuation of the population from the 20 km zone is continuing with approximately 200 people remaining to be moved. The Japanese authorities have distributed iodine tablets to the evacuation centers but no decision has yet been taken on their administration.



Emergency Response Manager

15-March-2011 01:35 UTC

IAEA Incident and Emergency Centre

経済産業省 Ministry of Economy,
Trade and Industry 原子力安全・保安院
緊急時情報ホームページ

原子力関連 緊急情報

福島第一原子力発電所2号機の状況について

[2011/03/15 08:09更新]

原子力安全・保安院から、福島第一原子力発電所2号機の状況等についてお知らせします。

本日午前6時10分時点で福島第一原子力発電所2号機で爆発音があったとの連絡を東京電力(株)から受けました。

これにより、サプレッション・チェンバー(圧力抑制室)(注)が損傷している恐れがあります。

(注)サプレッション・チェンバー(圧力抑制室)：

タービンの停止により主蒸気をタービンに送ることが出来なくなった場合、この蒸気をペント管等により圧力抑制室に導いて冷却し、原子炉圧力容器内の圧力を低下させる設備。非常用炉心冷却設備(ECCS)の水源としても使用する。

[<<一覧へ戻る](#)**当サイトについて**

このホームページは、原子力施設立地地域で大規模災害等が発生した際に、地域住民をはじめとした国民の皆様に向け、迅速に情報提供を行うためのものです。

**緊急情報メールサービス
(モバイル保安院)**

原子力施設立地地域にて大規模災害等が発生した際、原子力安全・保安院から、直接、原子力施設の状況やモニタリング情報などの緊急情報を、携帯電話にメールにてお知らせします。

**緊急情報メールサービス
(モバイル保安院)への登録について**

緊急情報メールサービスの配信登録を行う場合は、携帯電話で下記のURLにアクセスし、手続きを行ってください。

▼携帯サイトURL

<http://kinkyu.nisa.go.jp/m/>



(携帯サイト用二次元コード)

配信登録手順のイメージ[よくあるご質問](#)[お問い合わせ](#)[利用規約](#) [法的事項](#) [プライバシーポリシー](#)

Copyright 2008 NISA | Nuclear and Industrial Safety Agency All rights reserved.

経済産業省

平成23・03・15原第1号

平成23年3月15日

東京電力株式会社

取締役社長 清水 正孝 殿

経済産業大臣 海江田 万里

核原料物質、核燃料物質及び原子炉の規制に関する法律第64条 第3項の規定に基づく命令について

当省は、貴社に対し、核原料物質、核燃料物質及び原子炉の規制に関する法律（昭和32年法律第166号。以下「原子炉等規制法」という。）第64条第3項の規定に基づき、下記の事項を命ずる。

この処分について不服がある場合は、行政不服審査法（昭和37年法律第160号）第6条の規定に基づき、この処分があったことを知った日の翌日から起算して60日以内に、書面により経済産業大臣に対して異議申立てをすることができる。ただし、処分があったことを知った日の翌日から起算して60日以内であっても、処分の日から起算して1年を経過すると、処分の異議申立てをすることができなくなる。

記

1. 命令の内容及び命令の根拠となる法令の条項

原子炉等規制法第64条第3項の規定に基づき、貴社の福島第一原子力発電所について、下記の事項を命じること。

- ① 第4号機の使用済燃料プールの消火に努めること。併せて、再臨界の防止に努めること。

- ② 第2号機について、極力早期に原子炉への注水を行うこと。必要に応じ、ドライウェルのベントを行うこと。

2. 命令を行う理由

貴社の福島第一原子力発電所について、核燃料物質若しくは核燃料物質によって汚染された物又は原子炉による災害を防止するため緊急の必要があると認められるため。

地域住民および国民への注意事項について

1. 地域住民

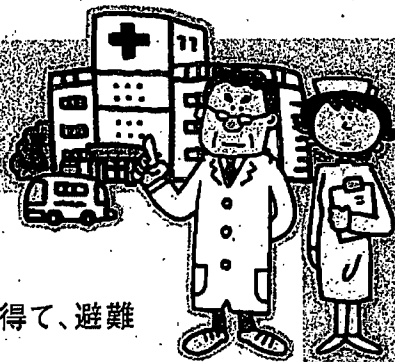
- 国、自治体の情報にしたがって、必要に応じ、屋内待避や避難等をお願いいたします。
- きっちりと情報をお伝えいたします。

2. 国民

- 特別の避難等の行動は必要ありません。
- 必要な情報はきっちりと発信していきますので、落ち着いて情報を確認いただきますようお願いいたします。



もしものときも、安心の医療体制で



緊急時の医療活動

保健所、日本赤十字社や医師会などの協力を得て、避難所などに救護所を開設し、救護にあたります。

「いつでも、どこでも、誰でも最善の医療を受けられる」という命の視点に立って、誰もが分け隔てのない医療を受けます。

事故がおきても
わたしたちの健康が
守られるように
なっているのね

飲食物の摂取制限

市町村は周辺環境の飲食物に対してヨウ素等の4核種を実測し、その濃度が防災指針の指標を超える場合は、飲食物の摂取制限を行ないます。そのとき、市町村は代わりとなる飲食物を支給します。各家庭の屋内で保存しているものであれば、飲食してもさしつかえありません。安全が確認された時点で制限は解除されます。



安定ヨウ素剤の服用

避難所などでは、安定ヨウ素剤服用の指示が出されることがあります。安定ヨウ素剤とは、放射性ヨウ素の吸入による甲状腺被ばくを低減するための防護剤です。安定ヨウ素剤を服用すると、あとから放射性ヨウ素が体内に入っても蓄積されにくく、短時間で体外に排出されます。



原子力災害がおこったら

あらゆる手段を使って連絡します。

注意して、よく連絡を聞いてください。

落ち着いて、市町村からの指示を待ちましょう。

外にいるときは警察官や消防士の指示に従いましょう。

このパンフレットは災害時に確認できるよう、

手元においてください。

独立行政法人原子力安全基盤機構

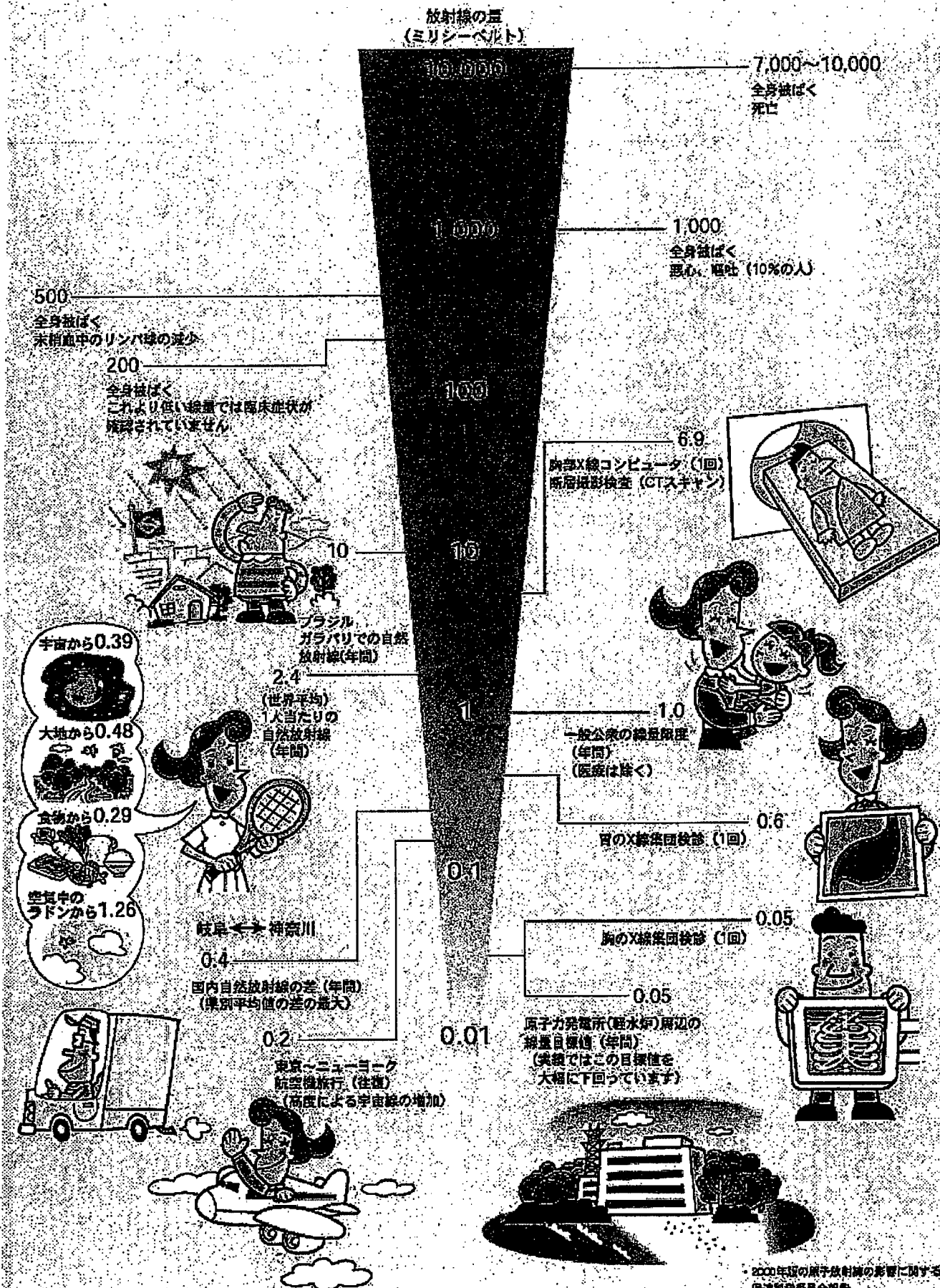
〒105-0001 東京都港区虎ノ門3-17-1

TEL. 03-4511-1600 (防災支援部)

<http://www.jnes.go.jp/>

独立行政法人原子力安全基盤機構は、経済産業省 原子力安全・保安院との連携のもと、原子力の安全確保に関する専門的・基盤的な業務を実施しています。
本パンフレットは、万一原子力災害が発生したらどのように行動するか、必要なポイントをまとめました。

2007年2月



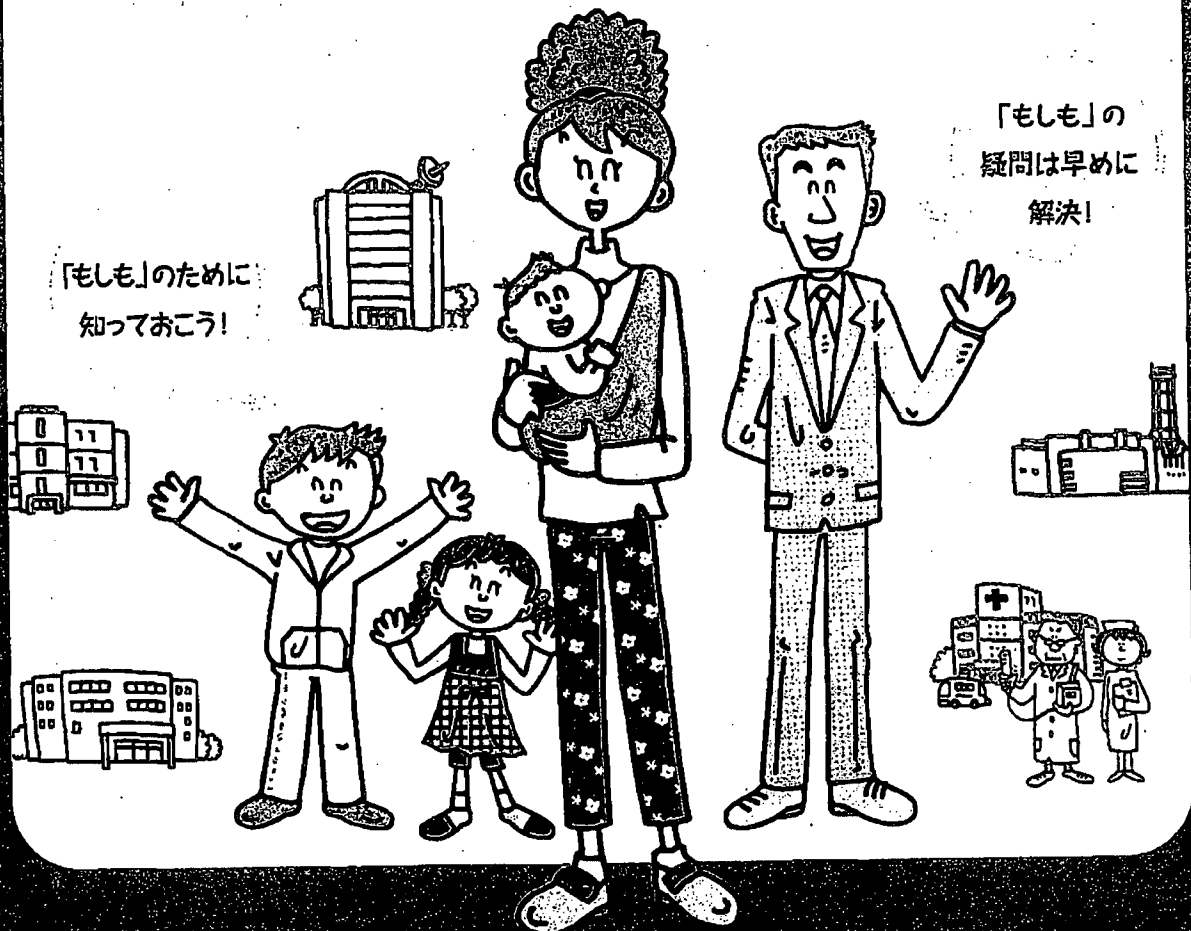
(注1) 本図中の数値は実効線量当量または実効線量で記載。

(注2) 自然放射線の量については、呼吸によるラドンの効果を含めた場合の値。

・2000年度の原子放射線の影響に関する
国連科学委員会報告
・放射線医学総合研究所調べ
・ICRP Pub 60
より作成

もしも 原子力災害がおこったら

Q&A



Q.1

原子力災害ってなに？

A

原子力発電所から放射性物質が外に漏れてしまうことです。

「原子力災害」とは放射線や放射性物質が発電所の敷地から外に漏れて、一般の人々に影響を及ぼすことです。

放射線や放射性物質の特徴は人体に感じないことです。放射線は目に見えず、臭いもありません。



原子力発電所の安全を守る仕組み

原子力発電所には何重もの安全対策が講じられています。十分に安全が守られるように設計し工事をおこないますし、安全が守られていることが確認できなければ運転もできないようになっています。事故がおきないようにいくつもの壁で放射線や放射性物質を閉じ込め、もしも異常事態がおきたら「止める・冷やす・閉じ込める」の考えのもと、災害が広がらないようにしています。

止める 原子炉を緊急に停止する

原子炉内の圧力が急速に高くなるなどの異常状態になった場合は、自動的に原子炉を停止させるため「原子炉緊急停止装置」がはたらきます。

冷やす 原子炉を冷やす

配管の破損などにより冷却材が減少するような事故がおこったら、自動的に水を送り込んで炉心等を冷やす「非常用炉心冷却装置」があります。

閉じ込める 放射性物質を閉じ込める

万が一の事故の際にも放射性物質を閉じこめる、原子炉格納容器が設けられています。ほかにも、多層の囲いや仕切り壁(5重の防護壁)を設けて、放射性物質が外に漏れないように設計されています。

Q.2

放射線の体への影響は？

A

浴びる量によっては、
悪い影響がでることがあります。

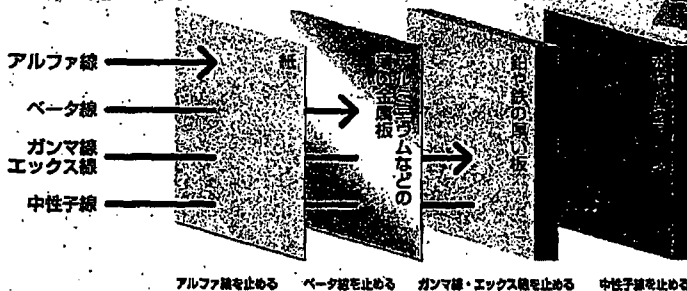
放射線は自然界にもあります。レントゲン(X線)などで医療にも活用されています。

放射線による被ばくはごくわずかなら問題はありませぬ。しかし大量に放射線を受けると、体に悪い影響が出ることがあります。

放射性物質と放射線

「放射性物質」とは、「放射線」を出す能力をもつ元素を含む物質です。「放射能」とは放射線を出す能力をあらわす単位です。

放射線にはアルファ(α)線、ベータ(β)線、ガンマ(γ)線などの種類がありますが、その種類によって物質を突き抜ける力(透過力)が違います。



「被ばく」と「汚染」

放射線が人体に当たると、人体の細胞がダメージを受け、DNAが壊れることがあります。DNAが壊れると、細胞が正常に働けず、がんや白血病などの病気の原因になります。放射線が人体に当たると、人体の細胞がダメージを受け、DNAが壊れることがあります。DNAが壊れると、細胞が正常に働けず、がんや白血病などの病気の原因になります。

外部被ばくから身を守るには

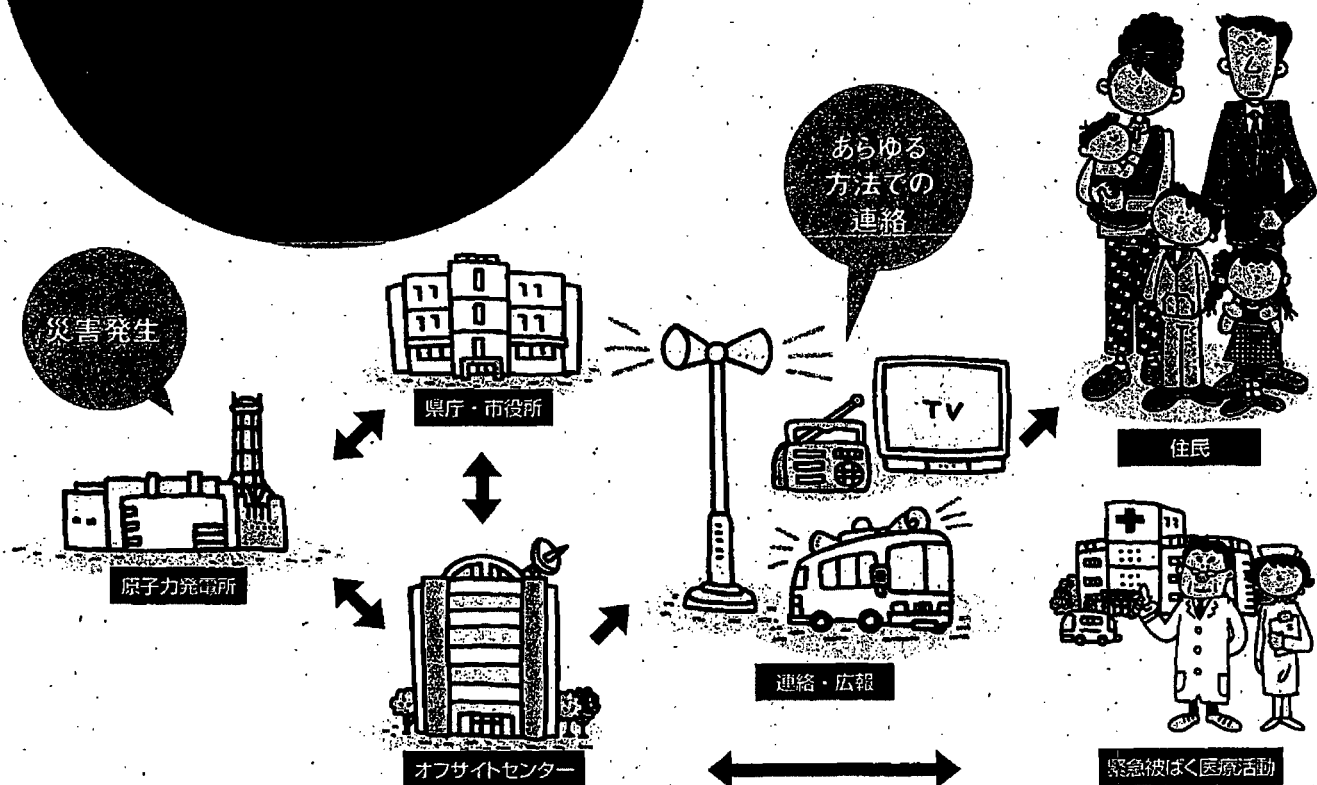
- 距離による防護(できるだけ遠くにいる)
- 時間による防護(放射線をうける時間を短くする)
- 遮蔽による防護(コンクリートなどの建物の中に入る)

内部被ばくから身を守るには

- 吸引防止(マスクやハンカチで口をふさぐ)
- 摂取防止(汚染された水や食べ物をとらない)

Q.3

災害が発生したらどうなるの？



A

指示がありますので、 注意して聞いてください

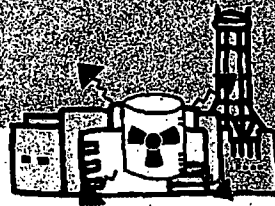
万が一、原子力施設で異常事態が発生した場合、「緊急時環境モニタリング」を行い、周辺地域の放射線量・放射能濃度が測定され、災害の状況を把握して、的確な対策を講じます。それに基づき、どのようにすべきかをお知らせしますので、注意して聞き指示に従ってください。





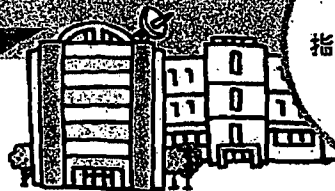
事故発生から広報までの流れ

事故発生



原子力施設で事故が発生し、放射性物質の影響が周辺地域に及ぶかそのおそれがあるばあい、原子力事業者はただちに、国・県・市町村をはじめ、警察・消防などに連絡しなくてはなりません。

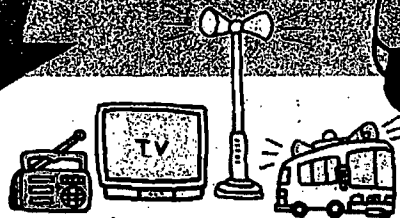
オフサイトセンターと対策本部の設置



原子力災害に対しては、国・地方自治体・原子力事業者・専門家などの関係者が一体となって、迅速に対応します。こうした原子力災害時における活動拠点が「オフサイトセンター」です。

「オフサイトセンター」では、国や地方自治体の現地対策本部などが設置され、「緊急時環境モニタリング」や、迅速で的確な情報提供と対応策の指示を行います。

あらゆる手段を使った広報の実施



あらゆる方法で事故の情報をお知らせし、どうすればよいか、災害の状況に応じて以下のいずれかの指示が出されます。

指示の種類

退避、避難の必要なし

屋内退避（自宅や職場、近くの公共施設に入ります）

安全な場所への避難（コンクリート屋内へ避難します）

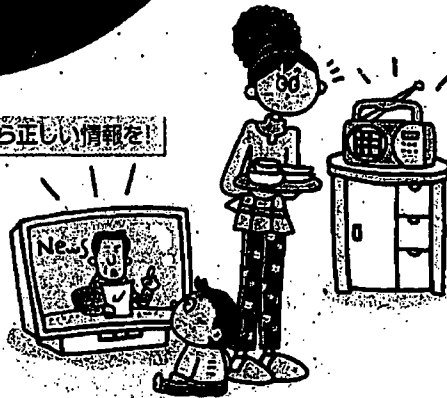
素早く、正確な指示が送れるようになっているのね



Q.4

事故発生 of 広報を聞いたたら
何をするの？

テレビ、ラジオから正しい情報を！



A

放送やインターネットなどの
指示を確認して行動しましょう。

事故の状況、対応状況、今後の予測、皆さんへの指示など、安全のために必要な情報を、わかりやすく、具体的に、くりかえしお知らせします。落ちついて、注意して情報を聞いてください。

インターネットで確認する
(県のホームページなど)



Q.5

子供たちや家族との連絡は
どうすればいいの？

A

各所の指示に従い
混乱がおさまるまで待ちましょう。

原子力災害は地震や台風のような災害とは異なります。一時的に連絡がとれない場合がありますが、学校や職場で適切な対応が行われます。安心してください。

災害時には電話の使用は避けましょう

災害時に電話が殺到すると、かかりにくくなりますが、災害時でもかかりやすい伝言サービスとして、

「171 (イナイ) 番」があります。

詳しくは171にかけると案内されます。



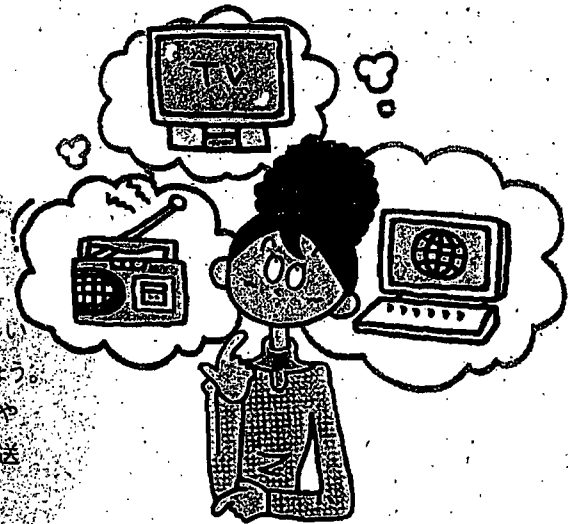
Q.6

どんなことに気をつけるの？

A

正しい情報をもとに落ち着いて。

災害の混乱のなかでは、誤った情報が広まることもあります。公共機関が報じる正しい情報や指示を待って、あせらずに行動することが被害を少なくすることにつながります。

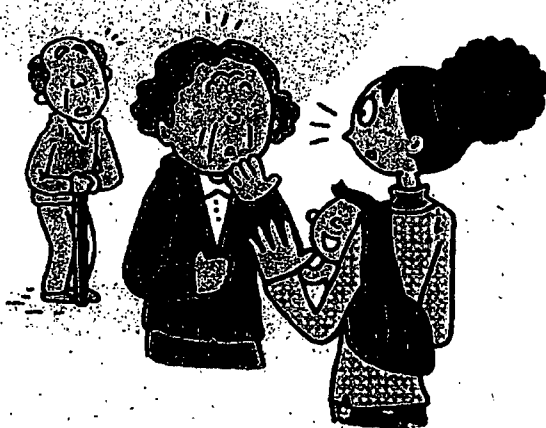


うわさやデマに注意！

道府県や市町村からの正しい情報にしたがって行動しましょう。おかしいと思ったら、テレビやラジオなど、複数の公共放送で確認してください。

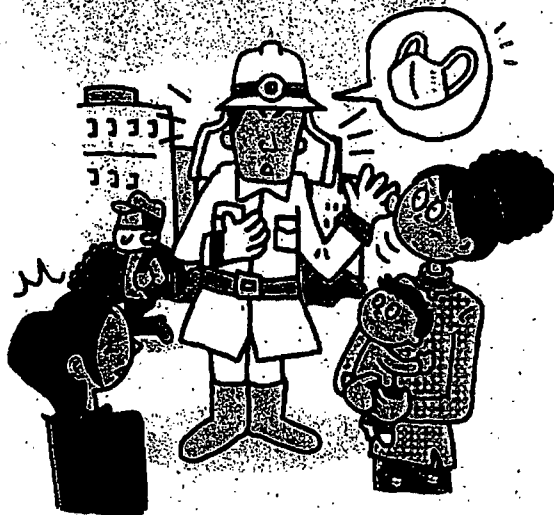
ご近所の方と 情報確認をしましょう

お年よりや体の不自由な方には、特に声をかけましょう。



人ごみでは特に 注意が必要です

多くの人が集まる場所や道路では、警察官や消防士などの指示に従って、落ち着いて行動してください。



Q.7

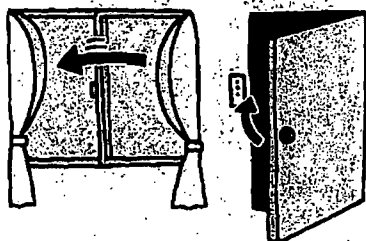
屋内退避の指示がでたら 何をすればいいの？

A

自宅や職場、近くの公共施設など、
屋内に入りましょう。

放射性物質が放出されると予測されたときに、状
況に応じてだされる指示です。すみやかに近くの
屋内に入って、被ばくを防ぐように心がけましょう。

避難指示は、避難する時間が十分とれるよう、早めに



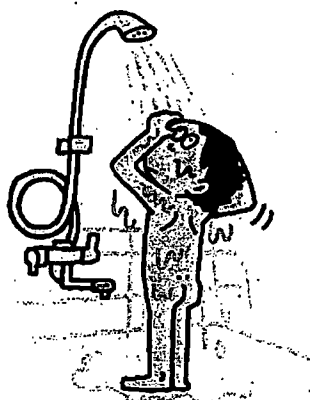
ドアや窓をすべて閉めます。



自宅や職場、近くの公共施設
などに入りましょう。



外にいた人は、手と顔を
よく洗ってください。



特に指示があったときは、
シャワーを浴びて洗髪してください。



換気扇、ファンヒーターを止めます。



食品は容器に入れたり
ラップをしだしましょう。



特に指示があった時は外で着ていた服を脱ぎ、
ビニール袋に入れ、袋の口をしっかりと閉めてください。



念のため飲料水を密閉容器に
確保しておきましょう。

Q.8

避難などの指示が出たら 何をすればいいの？

A

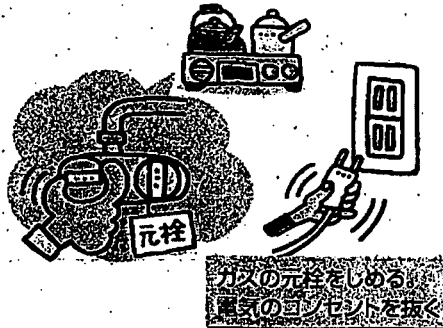
あわてずに、退避・避難の準備を
行い、指示に従ってください。

避難などの指示は、放射線による被害が実際
に起きる前に、予防的に早めに出されるもの
です。下記の手順で、落ち着いて避難しましょう。

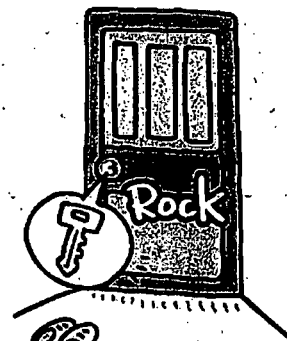
出されます。急がず、落ち着いて行動してください。



近所のかたかたと声をかけあいましょう



ガスの元栓をしめる
電気のコンセントを抜く



戸締りをする

最低限の持ち物をまとめて

- ・赤ちゃんのいる家庭では
おむつ、粉ミルクなど
- ・ラジオ、懐中電灯
- ・現金、預金通帳、印鑑等
- ・着替え（2～3日程度）
- ・マスク、ハンカチ
- ・非常食や飲料水



市町村



体が不自由で避難が
難しい場合は市町村に連絡を



避難所へは自家用車は使わず
歩いていきましょう



市町村の指示や避難指
針などへの指示に従って



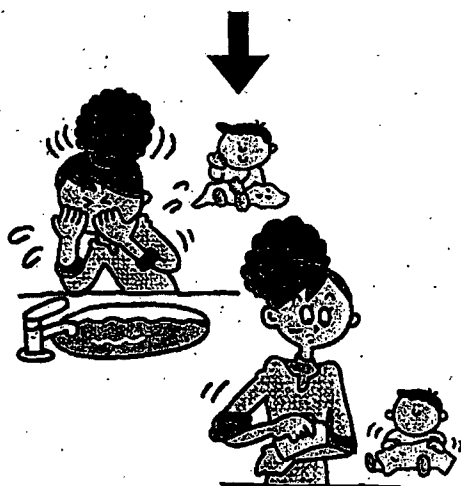
避難所へはマスクを
着用し、手洗いをこまめに

Q.9

避難所・救護施設では どんなことが行われるの？



放射性物質が付着していないかどうか確認し、
けがなどの応急手当も行います。



必要があるときは、放射性物質を洗ったり、
ふき取ったりして取り除きます。

A

被災住民の登録手続きを行います。

避難所では市町村などの係員が皆さんのお世話をします。避難所ではまず被災地住民の登録手続きを行います。被災地住民登録は、災害発生時にいた場所、その後の行動、避難所での措置などを記録登録するものです。その後の医療措置や損害保障の際に参考とする重要な資料となります。



A

万一被ばくしていたり 汚染していた場合は、 被災住民の登録後、診断を行います。

被ばくの状態や汚染の度合いにより、それぞれの方にどのような対応、治療が必要かを判断する診断を行います。



専門的な医療が必要なときは、
指定された医療機関へ搬送します。

(別添1)

指 示

平成23年3月15日11時00分

福島県知事 殿
富岡町長 殿
双葉町長 殿
大熊町長 殿
浪江町長 殿
川内村長 殿
楢葉町長 殿
南相馬市長 殿
田村市長 殿
葛尾村長 殿
広野町長 殿
いわき市長 殿
飯館村長 殿

内閣総理大臣

東京電力㈱福島第一原子力発電所で発生した事故に関し、原子力災害対策特別措置法第15条第3項の規定に基づき下記のとおり指示する。

記

東京電力㈱福島第一原子力発電所から半径20km圏内の住民は、退避すること。

半径20km以上30km圏内の住民は外出せず、自宅など屋内に待機すること。

今後、現地対策本部長から新たな指示が出された場合には、その指示に従うこと。区域内の居住者等に対して、その旨周知されたい。

公 示

平成23年3月15日11時00分

1. 緊急事態応急対策を実施すべき区域	東京電力(株)福島第一原子力発電所から半径30km圏内の海域
2. 原子力緊急事態の概要	緊急事態該当事象発生日時 平成23年3月12日 16時48分
	発生場所 東京電力(株)福島第一原子力発電所
	放射線等の状況 排気筒モニタの値: 不明 発電所敷地周辺のモニタリングポストの値: 不明
	被害状況:
3. 1. の区域内の居住者等に対し周知させるべき事項	その他の特記事項
	東京電力(株)福島第一原子力発電所から半径20km圏内の住民は、退避すること。 半径20km以上30km圏内の住民は外出せず、自宅など屋内に待機すること。 今後、現地対策本部長から新たな指示が出された場合には、その指示に従うこと。区域内の居住者等に対して、その旨周知されたい。

平成23年3月15日

経済産業省

原子力安全・保安院

茨城県東海村周辺の原子力施設における モニタリングポストの値について

茨城県東海村周辺地域の原子力施設は、平成23年3月11日の東北地方太平洋沖地震により、外部からの電源が停止しましたが、異常のないことが確認されており、その後外部からの電源が復旧し異常は認められていませんでしたが、同月15日午前7時以降、順次、それぞれの原子力施設敷地周辺に設置したモニタリングポストにおいて、原子力災害対策特別措置法（以下「原災法」という。）第10条に基づき主務大臣等に通報を行う基準である $5\mu\text{Sv/h}$ 以上の値（約 $5.14\mu\text{Sv/h}$ 、約 $5.0\mu\text{Sv/h}$ ）を計測しました。

1. 原災法第10条に基づく通報の発生施設の概要

(1) 独立行政法人日本原子力研究開発機構 東海研究開発センター 核燃料サイクル工学研究所

○場所：茨城県那珂郡東海村村松4番地33

○事業種類：再処理事業

○原災法第10条に基づく通報の発生時刻：平成23年3月15日7時13分

○原災法第10条に基づく通報事象の種類：モニタリングポスト指示値の上昇

○想定される原因：福島第一原子力発電所の事故に起因

○モニタリングポストの指示値：約 $0.04\mu\text{Sv/h}$ （通常値）→約 $5.14\mu\text{Sv/h}$

○その他：東北地方太平洋沖地震発生により外部からの電源が停止しましたが、非常用ディーゼル発電機が立ち上がり、施設の安全性が確保されていました。その後、外部からの電源が復旧し、施設は停止した状態であったことから、当該施設からの放出ではなく、福島第一原子力発電所の放射性物質の放出影響による変化が確認されたと考えられる。

(2) 独立行政法人日本原子力研究開発機構 原子力科学研究所

○場所：茨城県那珂郡東海村白方白根2-4

○事業種類：廃棄物埋設事業

○原災法第10条に基づく通報の発生時刻：平成23年3月15日7時18分

○原災法第10条に基づく通報事象の種類：モニタリングポスト指示値の上昇

○想定される原因：福島第一原子力発電所事故に起因

○モニタリングポストの指示値：約 $0.04 \mu\text{Sv/h}$ （通常値）→約 $5.0 \mu\text{Sv/h}$

○その他：東北地方太平洋沖地震発生により外部からの電源が停止しましたが、異常のないことが確認されており、その後外部からの電源が復旧し異常は認められていないことから、当該施設からの放出ではなく、福島第一原子力発電所の放射性物質の放出影響による変化が確認されたと考えられる。

2. その他東海村周辺地域の原子力施設

その他の茨城県東海村周辺地域にある原子力施設（日本原子力発電株式会社東海発電所、東海第二発電所、原子燃料工業株式会社、三菱原子燃料株式会社、独立行政法人日本原子力研究開発機構大洗研究開発センター）について外部からの電源が停止しましたが、異常のないことが確認されており、その後外部からの電源が復旧し異常は認められていません。なお、これらの施設におけるモニタリングポストの指示値は、15日7時以降においても $5 \mu\text{Sv/h}$ 未満ですが、モニタリングポスト指示値の上昇が確認されています。

3. その他の留意事項

経済産業省は、原子力防災管理者から原子力災害対策特別措置法第10条に基づく通報を受けた場合には、経済産業省防災業務計画に基づき経済産業省原子力災害警戒本部を設置することとなるが、今回のように原子力災害対策本部が既に設置されている場合には、原子力災害対策本部において他のプラントについても必要に応じて状況を確認する。

なお、モニタリングポストの値が上昇したのは、平成23年3月14日11時01分頃福島第一原子力発電所第1号機で発生した爆発や福島第一原子力発電所と各原子力施設との位置関係や気象条件によるものと考えられ、当該プラントの安全性に影響を与える事象ではありません。また、自宅等に屋内待避等することとなる予測線量（10～50 mSv）に比べて、モニタリングポストの指示値は約2000分の1から1万分の1であるため、公衆への放射性物質による影響はありません。

（本発表資料のお問い合わせ先）

原子力安全・保安院

原子力安全広報課 塩見、杉山

電話：03-3501-5890

出典：原子力施設等の防災対策について (原子力安全委員会)

(1) 屋内退避及び避難等に関する指標

国際放射線防護委員会（ICRP）等の文書を踏まえながら、防護対策の実効性も考慮し、屋内退避及び避難等に関する指標を以下のとおり提案する。検討に当たり参考とした資料については、付属資料 7、8、11 に示す。

表 2 屋内退避及び避難等に関する指標

予測線量（単位：mSv）		防 護 対 策 の 内 容
外部被ばくによる実効線量	内部被ばくによる等価線量 ・放射性ヨウ素による小児甲状腺の等価線量 ・ウランによる骨表面又は肺の等価線量 ・プルトニウムによる骨表面又は肺の等価線量	
10～50	100～500	住民は、自宅等の屋内へ退避すること。 その際、窓等を閉め気密性に配慮すること。 ただし、施設から直接放出される中性子線又はガンマ線の放出に対しては、指示があれば、コンクリート建家に退避するか、又は避難すること。
50以上	500以上	住民は、指示に従いコンクリート建家の屋内に退避するか、又は避難すること。

注) 1. 予測線量は、災害対策本部等において算定され、これに基づく周辺住民等の防護対策措置についての指示等が行われる。

2. 予測線量は、放射性物質又は放射線の放出期間中、屋外に居続け、なんらの措置も講じなければ受けると予測される線量である。

3. 外部被ばくによる実効線量、放射性ヨウ素による小児甲状腺の等価線量、ウランによる骨表面又は肺の等価線量、プルトニウムによる骨表面又は肺の等価線量が同一レベルにないときは、これらのうちいずれが高いレベルに応じた防護対策をとるものとする。

※4 IAEA等の文書において、防護対策（屋内退避／避難）の指標は、ある対策を講じた場合に回避することができる線量（回避線量）で記載されている。一方、防災指針においては、予測線量を用いている。これは、原子力災害発生時には防護対策の実施期間を定めて求めた回避線量より、一定の期間を定めて求めた予測線量を防護対策指標と比較し、防護対策の実施を判断した方がより安全側の対応になるためである。

地震被害情報 (第 24 報)
(3 月 15 日 15 時 00 分現在)

原子力安全・保安院が現時点で把握している東京電力(株)福島第一原子力発電所、福島第二原子力発電所、東北電力(株)女川原子力発電所、日本原子力発電(株)東海第二、電気、ガス、熱供給、コンビナート被害の状況は、以下のとおりです。

※今報より様式を変更しております。

前回情報からの変更は以下のとおり

1. 原子力発電所関係

○福島第一原子力発電所

- ・東京電力は、2号機の炉心損傷評価を実施し、「5%以下」と判断。(14日 22:14)
- ・2号機の原子炉水位が低下傾向 (14日 22:50)
- ・2号機で爆発音。圧力抑制室の圧力が低下したことから、同室に異常が発生したおそれ。(15日 6:20 頃)
- ・2号機での爆発音の発生後、4号機オペレーションエリアの壁が一部破損し、サプレッションプールの圧力が低下 (15日 6:20)
- ・4号機で火災発生。鎮火活動中。(15日 9:38)

○福島第二原子力発電所

- ・1～4号は残留熱除去系による除熱を実施中(15日 2:00)
- ・4号機の冷温停止を確認 (15日 7:15)

○女川原子力発電所

- ・モニタリングポスト値 $6.1 \mu\text{Sv/h}$ (15日 7:00)

○東海第二発電所

- ・冷温停止を確認 (15日 0:40)

2. 産業保安関係

別紙参照

3. 原子力安全・保安院等の対応

【3月14日】

- ・22:13 福島第二原子力発電所にて原子力災害対策特別措置法第

10条通報

- ・ 22:35 福島第一原子力発電所にて原子力災害対策特別措置法第15条通報

【3月15日】

0:00 国際原子力（IAEA）専門家派遣の受け入れを決定。IAEA天野事務局長による原子力発電所の被害に関する専門家派遣の意向を受け、原子力安全・保安院はIAEAによる知見ある専門家の派遣を受け入れることとした。なお、実際の受け入れ日程等については、今後調整を行う。

0:00 米国原子力規制委員会（NRC）専門家派遣の受け入れを決定。

- 11:00 内閣総理大臣が福島第一原子力発電所の避難区域
- ・ 新たに福島第一原子力発電所から半径20km圏～30km圏内の住民に対する屋内待避を指示

〈被ばくの可能性〉

- ・ 約60名を含む133名の測定を行い、13000cpm以上の23名に除染を実施した。

〈住民避難の状況〉

搬送待ちであった355名（双葉病院除く）について、バス、自衛隊ヘリ等により搬送を行い、353名について搬送を終了。残りの2名についても搬送済みとの情報もあるが、確認中。

(別紙)

1 発電所の運転状況【自動停止号機数：10基】

○東京電力(株)福島第一原子力発電所（福島県双葉郡大熊町及び双葉町）

(1) 運転状況

- 1号機（46万kW）（自動停止）
- 2号機（78万4千kW）（自動停止）
- 3号機（78万4千kW）（自動停止）
- 4号機（78万4千kW）（定検により停止中）
- 5号機（78万4千kW）（定検により停止中）
- 6号機（110万kW）（定検により停止中）

(2) モニタリングの状況

別添参照

(3) 主なプラントパラメーター（15日11:42）

	単位	1号機	2号機	3号機
原子炉圧力	MPa	0.072(A) 0.185(B)	0.315	0.244(A) 0.244(B)
原子炉格納容器圧力 (D/W)	Kpa	315	155	415
原子炉水位* ¹	mm	-1700(A) -1700(B)	+400 (A)	-1800(A) -2300(B)
原子炉格納容器内 サブプレッションプール水温	℃	不明	不明	不明
原子炉格納容器内 サブプレッションプール圧力	KPa	不明	D/S	D/S
備 考		11:42 現在の 値* ²	11:42 現在の 値* ³	11:24 現在の 値* ²

*1：燃料頂部からの数値

*2：1号機及び3号機は、中央制御室より運転員が撤退したためデータ採取不能

*3：2号機は火災対応中であるためデータ採取不能

(5) その他異常に関する報告

- ・火災の報告等なし
- ・原子力災害対策特別措置法第10条通報（11日15:42）
- ・同第15条通報（福島第一原子力発電所1、2号機）（11日16:36）
- ・1号機の格納容器内に消火系ラインを用いて海水注入開始(13日11:55)
→14日01:10一時中断
- ・2号機は注水機能を維持（13日14:00）

- ・ 2号機の原子炉水位が低下傾向（14日 13:18）
- ・ 2号機の原子炉容器内に消火系ラインを用いて海水注入準備(14日 19:20)
- ・ 東京電力によると、2号機の炉心損傷評価を実施し、「5%以下」と判断。
(14日 22:14)
- ・ 2号機の原子炉水位が低下傾向（14日 22:50）
- ・ 2号機で爆発音。圧力抑制室の圧力が低下したことから、同室に異常が発生したおそれ。(15日 6:20 頃)
- ・ 3号機の格納容器内に消火系ラインにて真水注入開始（13日 11:55）
- ・ 3号機の格納容器内に消火系ラインを用いて海水注入開始(13日 13:12)
- ・ 3号機及び1号機の注入をくみ上げ箇所の海水が少なくなったため停止。
(14日 1:10)
- ・ 3号機の海水注入を再開(14日 3:20)
- ・ 3号機の圧力が異常上昇(14日 11:45)
- ・ 3号機で1号機と同様に原子炉建屋付近で爆発（14日 11:01）
- ・ 4号機で、2号機の爆発音後、オペレーションエリアの壁が一部破損し、サプレッションプールの圧力低下（15日 6:10）
- ・ 4号機で火災発生。鎮火活動中（15日 9:38）、鎮火確認（15日 11 時頃）

○東京電力(株)福島第二原子力発電所（福島県双葉郡楢葉町及び富岡町）

(1) 運転状況

- 1号機（110 万 kW）（自動停止、14 日 17:00 冷温停止）
- 2号機（110 万 kW）（自動停止）14 日 18:00 冷温停止）
- 3号機（110 万 kW）（自動停止、12 日 12:15 冷温停止）
- 4号機（110 万 kW）（自動停止、15 日 7:15 冷温停止）

(2) モニタリングポスト等の指示値

別添参照

(3) 主なプラントパラメーター（15 日 11:00 現在）

	単位	1号機	2号機	3号機	4号機
原子炉圧力	MPa	0.14	0.06	0.04	0.09
原子炉水温	℃	110	86	29.3	84.6
原子炉水位*1	mm	8487	8361	7567	8785
原子炉格納容器内 サプレッションプール水温	℃	51	45	44	92
原子炉格納容器内 サプレッションプール圧力	KPa	239	201	132	240
備 考		冷温停止中	冷温停止中	冷温停止中	冷温停止中

*1：燃料頂部からの数値

(4) その他異常等に関する報告

- ・ 1号機にて原子力災害対策特別措置法第10条通報 (11日 18:08)
- ・ 1、2、4号機にて同法第10条通報 (11日 18:33)

○東北電力(株)女川原子力発電所 (宮城県牡鹿郡女川町、石巻市)

(1) 運転状況

- 1号機 (52万4千kW) (自動停止、12日 0:58 冷温停止)
- 2号機 (82万5千kW) (自動停止、地震時時点で冷温停止)
- 3号機 (82万5千kW) (自動停止、12日 1:17 冷温停止)

(2) モニタリングポスト等の指示値

MP2付近 (敷地最北敷地境界) 約 7,200nGy/h (14日 7:20)
→約 5.800 nGy/h (15日 7:20)

(3) その他異常に関する報告

- ・ タービン建屋地下1階の発煙は消火確認 (11日 22:55)
- ・ 原子力災害対策特別措置法第10条通報 (13日 13:09)

2 産業保安

○電気 3月15日 11:00 現在)

・ 東京電力 (3月15日 10:54 現在)

停電戸数：約1万戸 (延べ停電戸数 約405万戸)
停電地域：茨城県 北部の全域 (約1万戸)

・ 東北電力 (3月15日 9:00 現在)

停電戸数：約79万戸 (延べ停電戸数 約484万戸)
停電地域：青森県 三八の一部地域 (約2千戸)
岩手県 一部地域 (約11万2千戸)
宮城県 全域 (約60万4千戸)
福島県 浜通りの一部地域 (約4万7千戸)

・ 北海道電力

停電は12日 14:00までに復旧済 (延べ停電戸数 約3千戸)

・ 中部電力

停電 (長野県) は12日 17:11に復旧済 (延べ停電戸数 約4百戸)

○一般ガス (3月15日 10:00 現在)

死亡事故：地震との関係は不明。詳細調査中。

- ・ 盛岡ガス (盛岡市) 死者1名、負傷者11名
14日 8:00 デパートの地下での爆発

- ・ 東部ガス（いわき市）死者 1 名、負傷者 1 名
12 日 11:30 一般住宅での漏えいガスに着火

日本ガス協会が先遣隊を派遣、13 日 18 時仙台市に到着。
北海道、山形県、秋田県においては、供給停止の連絡はない。

各社の供給停止状況は以下の通り。

- ・ 東京ガス（日立市）29,474 戸供給停止
- ・ 仙台市営ガス 約 36 万戸供給停止
- ・ 塩釜ガス（塩釜市等）12,382 戸供給停止
- ・ 福島ガス（福島市）約 311 戸供給停止
- ・ 東部ガス（土浦市）約 6,605 戸供給停止
（水戸市）約 209 戸供給停止
- ・ 釜石ガス（釜石市）約 10,000 戸供給停止
- ・ 常磐共同ガス（いわき市）約 13,522 戸供給停止
- ・ 京葉ガス（浦安市）4,881 戸供給停止
- ・ 東北ガス（白河市）約 350 戸供給停止
- ・ 八戸ガス（八戸市）約 736 戸供給停止
- ・ 常磐都市ガス（いわき市）約 580 戸供給停止
- ・ 気仙沼市営ガス（気仙沼市）約 2,800 戸供給停止
- ・ 石巻ガス（石巻市）約 14,771 戸供給停止

○簡易ガス（3 月 15 日 10:00 現在）

各社の供給停止状況は以下の通り。

- ・ 宮城ガス（塩竈市）651 戸供給停止
（仙台市）2,058 戸供給停止
（黒川郡富谷町）2,318 戸供給停止
- ・ ミツウロコ（古川市）159 戸供給停止
（志田郡三本木町）169 戸供給停止
（郡山市）81 戸供給停止
- ・ 福陽ガス（須賀川市）81 戸供給停止
- ・ 仙台市ガス局（名取市）1,225 戸供給停止
（仙台市）114 戸供給停止
（岩沼市）342 戸供給停止
（黒川郡富谷町）1,855 戸供給停止
- ・ カメイ（日立市）301 戸供給停止
（川口市）165 戸供給停止

- ・ 東部液化石油（鉾田市）150 戸供給停止
 （水戸市）1,435 戸供給停止
 （ひたちなか市）424 戸供給停止
 （鹿嶋市）1,253 戸供給停止
 （小美玉市）306 戸供給停止
 （常陸太田市）70 戸供給停止
- ・ 栃木液化ガス（大田原市）153 戸供給停止
- ・ 相馬ガス（相馬市）143 戸供給停止
- ・ 相馬市ガス（相馬市）215 戸供給停止
- ・ 保原液化ガス（伊達郡保原町）336 戸供給停止
- ・ 筑波学園ガス（つくば市）269 戸供給停止
- ・ 勝田ガス事業協同組合（ひたちなか市）647 戸供給停止
- ・ 帝石プロパンガス（高萩市）747 戸供給停止
 （ひたちなか市）774 戸供給停止
 （常陸大宮市）258 戸供給停止
 （常陸太田市）233 戸供給停止
- ・ 東京ガスエネルギー（ひたちなか市）90 戸供給停止
- ・ 日本瓦斯（那珂郡東海村）594 戸供給停止
 （取手市）636 戸供給停止
 （つくばみらい市）238 戸供給停止
 （常陸太田市）631 戸供給停止
 （稲敷市）97 戸供給停止
 （矢板市）370 戸供給停止
 （那須烏山市）76 戸供給停止
- ・ 関東アストモスガス（那須烏山市）216 戸供給停止
- ・ ケーイージー（成田市）177 戸供給停止
- ・ 倉島商事（福島市）248 戸供給停止
- ・ 若松ガス（福島市）1,061 戸供給停止
- ・ 日通商事（福島市）406 戸供給停止
- ・ アイソン（安達郡本宮町）489 戸供給停止
- ・ 斉藤商店（つくばみらい市）110 戸供給停止
- ・ 佐藤興産（さいたま市）216 戸供給停止
- ・ 太田ガス事業協同組合（太田市）320 戸供給停止
- ・ 館林液化ガス（館林市）233 戸供給停止
- ・ グロリアガス（狭山市）185 戸供給停止
- ・ 東ガス管興（北杜市）79 戸供給停止

○熱供給（3月15日10:00現在）

- ・山形熱供給（山形市）供給停止
- ・小名浜配湯（いわき市小名浜）供給停止

○コンビナート（3月15日11:00現在）

- ・コスモ石油千葉製油所（千葉縣市原市）
LPG貯槽の支柱が折れ、破損。ガス漏れ火災。
重傷者1名、軽傷4名
- ・JX日鉱日石エネルギー(株)仙台製油所（宮城県仙台市）
出荷設備エリアが爆発し、火災が発生。

3 原子力安全・保安院等の対応

【3月11日】

- 14:46 地震発生と同時に原子力安全・保安院に災害対策本部設置
- 15:42 福島第一原子力発電所にて原子力災害対策特別措置法第10条通報
- 16:36 福島第一原子力発電所1、2号機にて事業者が同法第15条事象発生判断（16:45通報）
- 18:08 福島第二原子力発電所1号機にて原子力災害対策特別措置法第10条通報
- 18:33 福島第二原子力発電所1、2、4号機にて原子力災害対策特別措置法第10条通報
- 19:03 緊急事態宣言（政府原子力災害対策本部及び同現地対策本部設置）
- 20:50 福島県対策本部は、福島第一原子力発電所1号機の半径2kmの住人に避難指示を出した。（2km以内の住人は1864人）
- 21:23 内閣総理大臣より、福島県知事、大熊町長及び双葉町長に対し、東京電力(株)福島第一原子力発電所で発生した事故に関し、原子力災害対策特別措置法第15条第3項の規定に基づく指示を出した。
 - ・福島第一原子力発電所1号機から半径3km圏内の住民に対する避難指示。
 - ・福島第一原子力発電所1号機から半径10km圏内の住民に対する屋内待避指示。
- 24:00 池田経済産業副大臣現地対策本部到着

【3月12日】

- 5:22 福島第二原子力発電所1号機にて原子力災害対策特別措置法第15条通報
- 5:32 福島第二原子力発電所2号機にて原子力災害対策特別措置法第15条通報

- 5 : 4 4 総理指示により福島第一原子力発電所の10km圏内に避難指示
- 6 : 0 7 福島第二原子力発電所4号機にて原子力災害対策特別措置法第15条通報
- 6 : 5 0 原子炉等規制法第64条第3項の規定に基づき、福島第一原子力発電所第1号機及び第2号機に設置された原子炉格納容器内の圧力を抑制することを命じた。
- 7 : 4 5 内閣総理大臣より、福島県知事、広野町長、楢葉町長、富岡町長及び大熊町長に対し、東京電力(株)福島第二原子力発電所で発生した事故に関し、原子力災害対策特別措置法第15条第3項の規定に基づく指示を出した。
- ・福島第二原子力発電所から半径3km圏内の住民に対する避難指示。
 - ・福島第二原子力発電所から半径10km圏内の住民に対する屋内待避指示。
- 17 : 0 0 福島第一原子力発電所の放射線量の値が制限値を超えたため、原子力災害対策特別措置法第15条通報
- 17 : 3 9 内閣総理大臣が福島第二原子力発電所の避難区域
- ・福島第二原子力発電所から半径10km圏内の住民に対する避難を指示。
- 18 : 2 5 内閣総理大臣が福島第一原子力発電所の避難区域
- ・福島第一原子力発電所から半径20km圏内の住民に対する避難を指示。
- 19 : 5 5 福島第一原子力発電所1号機の海水注入について総理指示
- 20 : 0 5 総理指示を踏まえ、原子炉等規制法第64条第3項の規定に基づき、福島第一原子力発電所第1号機の海水注入等を命じた。
- 20 : 2 0 福島第一原子力発電所1号機の海水注入を開始

【3月13日】

- 5 : 3 8 福島第一原子力発電所3号機の全注水機能喪失のため、原子力災害対策特別措置法第15条に基づく特定事象と判断した旨の通報受信。
- 当該サイトについて、東京電力において現在、電源及び注水機能の回復と、ベントのための作業を実施中。
- 9 : 0 8 福島第一原子力発電所3号機の圧力抑制及び真水注入を開始
- 9 : 2 0 福島第一原子力発電所3号機の耐圧ベント弁開放
- 9 : 3 0 福島県知事、大熊町長、双葉町長、富岡町長、浪江町長に対し、原子力災害対策特別措置法に基づき、放射能除染スクリーニング

の内容について指示

- 9 : 3 8 福島第一原子力発電所 1 号機にて原子力災害対策特別措置法第 1 5 条通報
- 1 3 : 0 9 女川原子力発電所にて原子力災害対策特別措置法第 1 0 条通報
- 1 3 : 1 2 福島第一原子力発電所 3 号機の注入を真水から海水に切り替え
- 1 4 : 2 5 福島第一原子力発電所にて原子力災害対策特別措置法第 1 5 条通報

【3 月 14 日】

- 1 : 1 0 福島第一原子力発電所 1 号機及び 3 号機の注入をくみ上げ箇所の海水が少なくなったため停止。
- 3 : 2 0 福島第一原子力発電所 3 号機の海水注入を再開
- 4 : 2 4 福島第一原子力発電所にて原子力災害対策特別措置法第 1 5 条通報
- 7 : 5 3 福島第一原子力発電所にて原子力災害対策特別措置法第 1 5 条通報
- 1 3 : 2 5 福島第一原子力発電所 2 号機にて原子力災害対策特別措置法第 1 5 条通報
- 2 2 : 1 3 福島第二原子力発電所にて原子力災害対策特別措置法第 1 0 条通報
- 2 2 : 3 5 福島第一原子力発電所にて原子力災害対策特別措置法第 1 5 条通報

【3 月 15 日】

- 0 : 0 0 国際原子力（I A E A）専門家派遣の受け入れを決定
I A E A 天野事務局長による原子力発電所の被害に関する専門家派遣の意向を受け、原子力安全・保安院は I A E A による知見ある専門家の派遣を受け入れることとした。なお、実際の受け入れ日程等については、今後調整を行う。
- 0 : 0 0 米国原子力規制委員会（N R C）専門家派遣の受け入れを決定
- 1 0 : 3 0 海江田経済産業大臣が原子炉等規制法第 6 4 条第 3 項の規定に基づき、4 号機の消火及び再臨界の防止、2 号機の原子炉内への早期注水及びドライウエルのベントの実施について指示
- 1 1 : 0 0 内閣総理大臣が福島第一原子力発電所の避難区域
・炉内の状況を考慮して、新たに福島第一原子力発電所から半径 2 0 k m 圏～3 0 k m 圏内の住民に対する屋内待避を指示

<被ばくの可能性（3月15日11:00現在）>

<住民の被ばく>

- (1) 二本松市福島県男女共生センターにおいて、双葉厚生病院からの避難者約60名を含む133名の測定を行い、13000cpm以上の23名に除染を実施した。
- (2) この他、福島県が用意した民間バスで、双葉厚生病院から川俣町済生会川俣病院へ移動した35名については、県対策本部は被ばくしていないと判断。
- (3) バスにより避難した双葉町の住民約100名について、100名のうち、9名について測定した結果、以下の通りだった。県外(宮城県)に分かれて避難したが、その後合流して二本松市福島男女共生センターへ移動。((1)の報告との関係は確認中。)

カウント数	人数
18,000cpm	1名
30,000～36,000cpm	1名
40,000cpm	1名
40,000cpm 弱※	1名
ごく小さい値	5名

※（1回目の測定では100,000cpmを超え、その後靴を脱いで測定した結果計測されたもの）

<従業員等の被ばく>

- (1) 福島第一原発で作業していた従業員18名。測定の結果、1名は106.3mSv、その他の方は健康に影響ないレベルであるが具体的な数値は不明。106.3mSvの1名は、内部被ばくの恐れはなく医療的処置は不要とのこと。
- (2) 福島第一原発3号機の爆発の際に近くで作業していて負傷した従業員7名（意識あり）のうち6名。測定結果の詳細は不明。

<その他>

- (1) 福島県は3月13日から県内の保健所2か所でスクリーニングを開始。13,000cpmを超えた三十数名について除染を実施。

(2) 福島第一原発で給水作業に従事していた自衛隊員5名が被ばく。作業終了後(12日)、OFCへ移動後の測定では30,000cpm。除染後の測定では、5,000～10,000cpm。1名は放医研に搬送。防衛省において、その他自衛官の被ばくは確認されず。

(3) 警察官について、警察庁において2名の除染の実施を確認。異常の報告はなし。

(4) 消防官について、消防庁において把握している被ばく者はなし。ひきつづき確認中。

<負傷者の状況(3月15日11:00現在)>

1. 地震による被害

- ・社員2名(軽傷)
- ・協力会社2名(うち1名両足骨折)
- ・行方不明2名(4号タービン建屋内)
- ・急病人1名発生(脳梗塞、救急車搬送、県情報)
- ・管理区域外にて社員1名が左胸の痛みを訴えて救急車を要請(意識あり)
- ・社員2名が中央制御室での全面マスク着用中に不調を訴え、福島第二の産業医の受診を受けるべく搬送

2. 福島第一原子力発電所1号機爆発による被害

- ・1号機付近で爆発と発煙が発生した際に4名が1号タービン建屋付近(管理区域外)で負傷。川内診療所で診療。

3. 福島第一原子力発電所3号機の爆発による負傷

- ・社員4名
- ・協力会社3名
- ・自衛隊4名(うち1名は内部被ばくの可能性を考慮し、「(独)放射線医学総合研究所」へ搬送予定)

<住民避難の状況(3月15日7:00現在)>

福島第一原子力発電所20km圏内及び福島第二原子力発電所10km圏内の避難は、病院の患者、福祉施設の入居者などの搬送待ちであった355名(双葉病院除く)について、バス、自衛隊ヘリ等により搬送を行い、353名について搬送を終了。残りの2名についても搬送済みとの情報もあるが、確認中。

このほか、双葉病院の患者（数十人程度）については搬送作業中との情報もあり、現在確認中。また、複数名が自主的に自宅に屋内待避している模様。それ以外の方々については、おおむね避難を終了。

(参考)

【東北地方太平洋沖地震】

1. 災害概要

(1) 発生日時：平成 23 年 3 月 11 日（金） 14：46 発生

(2) 発生場所：震源三陸沖（北緯 38 度、東経 142.9 度）

深さ 10km、マグニチュード 9.0

(3) 各地の震度

○震度 4 以上の地域

震度 7 宮城県北部

震度 6 強 茨城県北部、茨城県南部

震度 5 強 青森県三八上北

震度 5 弱 新潟県中越

震度 4

○震度 4 以上の市町村

震度 6 強 福島県楡葉町、富岡町、大熊町、双葉町

震度 6 弱 宮城県石巻市、女川町（発電所の震度計による）、東海村

震度 5 弱 新潟県刈羽村

震度 4 青森県六ヶ所村、東通村、新潟県柏崎市、神奈川県横須賀市

震度 1 北海道泊村



INCIDENT AND EMERGENCY CENTRE

Subject: Release of radioactivity from Unit 4 of Fukushima Daiichi nuclear power plant

At 07:20 UTC on 15 March 2011 the IAEA was informed by the Japanese authorities that the fire at the spent fuel storage pond at Unit 4 of the Daiichi nuclear power plant was extinguished at 02:00 UTC.

The IAEA will issue further information as soon as it becomes available.

Rodolfo Cruz Suarez

Emergency Response Manager

15-March-2011 07:24 UTC

IAEA Incident and Emergency Centre

From: [LIA02 Hoc](#)
To: [HOO Hoc](#); [RST01 Hoc](#); [PMT01 Hoc](#)
Subject: FW: Notes from March 14 IAEA Press Brief
Date: Tuesday, March 15, 2011 3:33:16 AM

FYI

From: Shaffer, Mark R [mailto:ShafferMr@state.gov]
Sent: Tuesday, March 15, 2011 3:30 AM
To: LIA03 Hoc
Cc: LIA02 Hoc
Subject: Notes from March 14 IAEA Press Brief

Amano began by noting the unprecedented nature of the natural and human disaster, a theme which he repeated many times in his remarks. He stated that there are many unknown elements, and repeated many times that the Agency must refrain from speculation about the unknown. He carefully pointed out up front that the explosions had been hydrogen explosions, therefore chemical and not nuclear explosions, that containment of nuclear materials appeared to be intact, and that there had been only a limited release of radioactivity. The primary goal at the moment is to cool the reactors.

The Q&A lasted over an hour, so I won't go thru the full session. The highlights that Amano repeated throughout the briefing:

He is confident that Japan is providing all the information it has, and doing everything possible to restore the safety of the nuclear reactors. IAEA established contact with Japanese immediately after earthquake, contact has been continuous since then.

After a nuclear accident, 3 things are required: shutdown, containment, and cool down. Japan shut down its reactors successfully and has contained radiation to very limited release. Problem is with cool down.

IAEA's role is to share authenticated information with Member States and coordinate assistance; while the IAEA's information process may be slower than media reports, it has the merit of being authenticated directly from Japanese nuclear officials, it is not speculation.

A few specific Q&As of note:

Is this the end of the nuclear renaissance?

- Too soon to foresee, this unprecedented natural disaster does not change the need for a stable source of energy and the need to mitigate climate change.

Is this a Chernobyl-like catastrophe?

- Very unlikely. This is a huge natural catastrophe, not one of human or design error. There is no chain reaction in the reactor, it has been shut down. The design of this reactor is different from Chernobyl's, particularly

the containment vessel. This reactor is designed to withstand severe accident.

Define the radiological release?

- Flory: Monitoring done by operators on premises. Dose per hour measurement has been ranging from 3-50 microsieverts per hour. Peaked at 1000 microsieverts per hour on 3/12; was down to 40 by end of day. Average natural background is .3 microsieverts per hour. No indication that the level measured poses a high risk to human health.

Is there a meltdown?

- Lyons: Don't have any indication that fuel is melting at this point.

What is the damage to the core?

- Lyons: Unknown, no one is in the core to see. But this is not an urgent question. The question is how best to cool the reactor. DG pointed out that at TMI in the U.S. it took months/years to understand the core damage.

Is there a concern about reactors being built along fault lines?

- Certainly need to evaluate, at this stage cannot see what implications will be.

This email is UNCLASSIFIED.

MARCH 20, 2011 1500 EDT BRIEFING SHEET

FUKUSHIMA DAI-ICHI

- Units 1, 2, and 3 reactors appear to in a stable condition with seawater injection continuing. Containment integrity is believed to be intact on Units 1, 2, and 3
- Containment pressure on Unit 3 is believed to have stabilized and venting is not expected. TEPCO believes that water sprayed on Unit 3 SFP had some effect on reducing dose rates (3.44 mSV to 2.75 mSV 500 m north of reactor) and is focusing efforts on Unit 4 SFP. The Japanese Self Defense Force plans to resume water injection to the Unit 4 spent fuel pool from the ground level today.
- Two diesel generators are running and supplying AC power to Units 5 and 6. A Unit 5 RHR pump, powered by one of the U-6 diesel generators was started and is providing cooling to the Unit 5 spent fuel.
- TEPCO is now installing high voltage cables from a nearby transmission line to Units 1&2. Priority is being given to restoring power to RHR and cooling water pumps. Units 1 and 2 have temporary power to a 6.9KV panel. TEPCO is working to have temporary cables run to necessary equipment. Power to Units 3&4 is planned for later (perhaps by Monday). Dose rates have not changed significantly although some reductions near site were reported following efforts to add water to Unit 3. It was reported that very low levels of radioactive materials were detected in spinach and milk. [Dose rate data provided by industry representatives.]
- Still awaiting results from NARAC on "bounding worst case" source term's potential effects on U.S. NRC's protective measures team has drafted a more realistic worst case source term that is still being evaluated and is focusing efforts on this scenario. Wind direction is primarily towards the south for the next 12 hours, and is then expected to shift to the Southeast.
- Consortium call established 10 am time frame to continue calls. Call tomorrow is at 2 due to Commission meeting tomorrow. Priorities are to have method for US industry to interact with TEPCO, and US Govt agency (not NRC) in coordination to help with logistics, funding etc. Call tomorrow with Chairman and USAID to determine the right agency to pick this up.
- We provided current status of efforts to support DHS Secretary, no issues.

DDO/51

MARCH 21, 2011 0600 EDT BRIEFING SHEET

FUKUSHIMA DAI-ICHI

- Units 1, 2, and 3 reactors appear to be in a stable condition with seawater injection continuing. There were reports of "fresh water" being used on March 20. Containment integrity is believed to be intact on Units 1, 2, and 3. Containment pressure of Unit 3 has stabilized and venting is not imminent. Gray smoke emanated from Unit 3 which caused site evacuation; source of smoke unknown. The Japanese government indicated that there were no increases in temperatures or radioactivity. There are indications that both the Unit 3 and Unit 4 spent fuels pools have water level.
- TEPCO has installed high voltage AC power cables from a nearby transmission line to Units 1&2. Units 1&2 have temporary power available. TEPCO is working to have temporary cables run to necessary cooling equipment. Power to Units 3&4 is planned (perhaps by Monday March 21). Two diesel generators are running and supplying AC power to Units 5&6. A Unit 5 RHR pump, powered by one of the U-6 diesel generators is providing cooling to the Unit 5 spent fuel pool. External AC power cables have reached Units 5&6, but power has not yet been connected.
- Dose rates have not changed significantly at the site although some reductions were reported following efforts to add water to Unit 3. DOE Aerial Monitoring System assessments support the recommendation for evacuation of US citizens within 50 miles of the plant. Concentrations of iodine-131 in milk from cows within 20 kilometers (about 12 miles) of Fukushima Dai-ichi have reached levels 10 times maximum admissible levels and distribution of these products have been suspended.
- Still awaiting results from NARAC on "bounding worst case" source term's potential effects on U.S. NRC's protective measures team has drafted several scenarios for a more realistic worst case source term that is still being evaluated and is focusing efforts on this scenario. Wind direction is primarily towards the south for the next 12 hours, and then is expected to shift to the southwest.
- Industry Consortium call established for 10 am each day (call Monday is at 2 pm due to conflict with Commission meeting). Priority is to establish a method for US industry to interact with TEPCO, and US Government agency (not NRC) to help coordinate logistics, funding, etc. Call tomorrow with Chairman and USAID to determine the right agency to lead. Australian C-17 with Bechtel-designed equipment still on the ground with mechanical difficulties.
- A detailed discussion between OSTP (Holdren), Naval Reactors (Adm. Donald), PACOM (Adm. Willard), NRC (Chm. Jazcko), State (Ambassador Roos) was conducted to discuss the implications of airborne radioiodine samples collected near Tokyo and if further actions should be initiated.

25/52

March 22, 2011

1500 EDT

Briefing Sheet Fukushima Daiichi

- Units 1, 2, and 3 reactors appear to be in a static condition. Seawater injection to the reactor coolant systems (via fire trucks) is continuing. Containment integrity status is uncertain for all 3 units. Report of steam coming from Unit 2. Reports of smoke from Unit 3 due to potential oil fire (Source: INPO). Unit 1 feedwater thermocouple reading 720 degrees F; and reactor lower head temperature is 741 degrees F.
- AC power cables installed from a nearby transmission line to Units 1&2. TEPCO is working to establish power to necessary cooling equipment (U2 first). Electrical power has been restored to the Unit 3 control room (Source: NHK World). Power cables connected to a load center in Unit 4. External AC power restored to Unit 5. Unit 6 diesel generators running. RHR pumps providing cooling to both Units 5&6. 480 VAC power has been restored to portions of all 4 units, but limited capability to operate any equipment at this time.
- Multi-day trending of all available dose rate information shows slightly declining levels. On-site surveys of the exterior of reactor buildings show dose rates for 60/mR/hr to 15 R/hr with the highest dose rates around the Unit 3 reactor building. DOE aerial Monitoring System assessments support the recommendation for evacuation of US citizens within 50 miles of the plant. AMS flights have been grounded due to weather for the past two days. Concentrations of iodine-131 in milk from cows within 20 kilometers (about 12 miles) of Fukushima Dai-ichi have reached levels 10 times maximum admissible levels and distribution of these products have been suspended.
- Coordinating with NARAC and interagency partners on assumptions and key messages for dose assessments from the "Bounding Reasonable (Source Term) Model" and a more conservative, extreme source term model, including next steps.
- Industry Consortium call established for 10:00 am each day. Priorities include establishing a method for US industry to interact with TEPCO (INPO representative scheduled to arrive in Tokyo 3:00 pm JDT March 23) and offering longer-term solutions for core and spent fuel pool cooling. Both shipments of the two trains of Bechtel-designed equipment arrived at Yokota Air Base today. NRC initiated request to identify another U.S. Government agency to coordinate equipment support logistics, funding, etc.
- Conducting an objective review to determine if there are any additional actions that we should be taking but to date may have missed.
- NRC drafted criteria for relaxing the previous issued 50 mile protective action recommendation around Fukushima.
- Continuing to refine the criteria upon which the agency would "stand-down" from its active monitoring activities in response to the Fukushima reactor events.

DDP/53

March 22, 2011

2200 EDT

Briefing Sheet Fukushima Daiichi

Units 1, 2, and 3 reactors appear to be in a static condition. Seawater injection to the reactor coolant systems (via fire trucks) is continuing. Containment integrity status is uncertain for all 3 units. Report of steam coming from Unit 2. Reports of smoke from Unit 3 due to potential oil fire (Source: INPO). Unit 1 feedwater thermocouple reading 720 degrees F; and reactor lower head temperature is 741 degrees F (may not be reliable).

AC power cables installed from a nearby transmission line to Units 1&2. TEPCO is working to establish power to necessary cooling equipment (U2 first). Electrical power has been restored to the Unit 3 control room (Source: NHK World). Power cables connected to a load center in Unit 4. External AC power restored to Unit 5 and 6. Unit 6 diesel generators running. RHR pumps providing cooling to both Units 5&6. 480 VAC power has been restored to portions of all 4 units, but limited capability to operate any equipment at this time.

Multi-day trending of all available dose rate information shows slightly declining levels.

Some indications of trace but detectable amounts of I-131 are being reported at some nuclear plants in the U.S. (Ginna and Nine Mile). Region I is being asked to get more detail.

Coordinating with NARAC and interagency partners on assumptions and key messages for dose assessments from the "Bounding Reasonable (Source Term) Model" and a more conservative, extreme source term model, including next steps.

Industry Consortium call established for 10:00 am each day. Priorities include establishing a method for US industry to interact with TEPCO (INPO representative scheduled to arrive in Tokyo 3:00 pm JDT March 23) and offering longer-term solutions for core and spent fuel pool cooling. Two shipments of the first train of Bechtel-designed equipment arrived at Yokota Air Base today. There is a third shipment of components for this train that will be shipped on Thursday, as the fittings etc are still being fabricated. NRC initiated request to identify another U.S. Government agency to coordinate equipment support logistics, funding, etc.

9:00 pm call with PMT, Embassy, and DOD on PA recommendations.

9:00 pm call with RST and TEPCO. Call will be primarily focused on salt, hydrogen, and criticality issues. RST is providing assistance to TEPCO following their request for analysis of when lower core will be filled with salt, and means to mitigate this, including criticality issues.

March 23, 2011

1500 EDT

Briefing Sheet Fukushima Daiichi

Units 1, 2, and 3 reactors appear to be in a static condition. Seawater injection to the reactor coolant systems (via fire trucks) is continuing; however flow rates very limited on Unit 1 and Unit 3. Containment integrity status is uncertain for all 3 units. Report of steam coming from Unit 2. Reports of smoke from Unit 3 due to potential oil fire (Source: INPO). Pump cooling Unit 5 reactor and spent fuel pool (RHR) stopped today, TEPCO working to replace.

AC power cables installed from a nearby transmission line to Units 1&2. TEPCO is working to establish power to necessary cooling equipment (U2 first). Electrical power has been restored to the Unit 3 control room (Source: NHK World). Power cables connected to a load center in Unit 4. External AC power restored to Unit 5 and 6. Unit 6 diesel generators running. RHR pumps providing cooling to both Units 5&6. 480 VAC power has been restored to portions of all 4 units, but limited capability to operate any equipment at this time.

Multi-day trending of all available dose rate information shows slightly declining levels.

Some indications of trace but detectable amounts of I-131 are being reported at some nuclear plants in the U.S. (Ginna, Nine Mile, Kewaunee, SONGS, and Diablo Canyon). PMT is reviewing data sets. Requested NRR assistance in reviewing Information Notice on industry data collection, similar to what was done following the Chernobyl accident in 1986

Industry Consortium call established for 10:00 am each day. Priorities include establishing a method for US industry to interact with TEPCO (INPO representative has arrived in Tokyo 23 March 23 local time) and offering longer-term solutions for core and spent fuel pool cooling. Two shipments of the first train of Bechtel-designed equipment arrived at Yokota Air Base. There is a third shipment of components for this train that will be shipped on Thursday, as the fittings etc., are still being fabricated. DoD is the lead U.S. Government agency coordinating equipment support logistics, funding, etc.

EDO and Office Directors are addressing roles and responsibilities of the Operations Center vice work to be done by offices (outside Operations Center).

DDP/SS

March 24, 2011

0600 EDT

Briefing Sheet Fukushima Daiichi

In an early morning press conference on Thursday, March 24, NISA indicated that progress was being made in injecting fresh water into the reactors: fresh water is reportedly being injected into Unit 1—albeit using fire trucks. Seawater injection to the other units continues; however, the flow rate to the reactor pressure vessels is unknown. Containment integrity is questionable for all 3 units—particularly for Units 2 and 3. Pump cooling for Unit 5 reactor and spent fuel pool (RHR) stopped on Wednesday and TEPCO plans to re-establish today. (Source: NISA)

AC power cables installed from a nearby transmission line to Units 1&2. TEPCO is working to establish power to necessary cooling equipment (U2 first). Electrical power has been restored to the Unit 3 control room (Source: NHK World). Power cables connected to a load center in Unit 4. External AC power restored to Unit's 5 and 6. Unit 6 diesel generators running. 480 VAC power has been restored to portions of all 4 units, but limited capability to operate any equipment at this time.

Multi-day trending of all available dose rate information shows slightly declining levels.

Indications of trace, but detectable amounts of I-131 are being reported at some nuclear plants in the U.S. (Ginna, Nine Mile, Palo Verde, SONGS, and Diablo Canyon, Columbia, Millstone). PMT is reviewing data sets. Industry has agreed to collect the data and provide to NRC for distribution with Federal Government (anticipate EPA lead).

Industry Consortium call established for 10:00 am each day. Priorities include establishing a method for US industry to interact with TEPCO (INPO representative arrived on March 23) and offering longer-term solutions for core and spent fuel pool cooling. Two shipments of the first train of Bechtel-designed equipment arrived at Yokota Air Base. There is a third shipment of components for this train that is scheduled to be shipped today.

EDO and Office Directors are addressing roles and responsibilities of the Operations Center vice work to be done by offices (outside Operations Center).

ET initially assessing, with NRC in-country team, anticipated size and expertise makeup of next group of in-country support.

Recommend reaching out to Pete Lyons to help DOE understand NRC rationale for our position with respect to providing salt and RHR restart strategies via letter to TEPCO.

Naval Reactors requested an assessment of reactor core and spent fuel pool conditions. This would be developed and shared in a timely manner for the purposes of capturing what "could" happen, sharing it with the Japanese and opening the dialogue for what recommendations the U.S. would make if such conditions exist (such as filling the primary containment if fuel has the potential to go ex-vessel). NR specifically interested in assessing protective actions for U.S. personnel in Japan in this context.

March 25, 2011

0600 EDT

Briefing Sheet Fukushima Daiichi

Plant status remains unchanged from status at 1515.

PMT is working with OSTP and EPA to properly manage and communicate all environmental data collected domestically, including iodine in drinking water. PMT briefed that the detected iodine levels in the rain water are substantially below the drinking water standards. RADnet is posting current monitoring data on web. This info is being integrated with data gathered from test band monitoring and reported to OSTP.

DOE has agreed the US should reach out to Japan as one voice only. To facilitate this, DOE (Pete Lyons and Steve Aoki) were provided a summary of the 1000 industry consortium call. In addition, NRC/RES will participate in a DOE call everyday from 1700 to 1800. This will help facilitate the one voice. Chairman is continuing to work with others to establish a Senior level person as a focal point.

Per NRC Japan team, Japan has officially accepted the pumping system at the air force base, and will be using it. The equipment will be moved tomorrow afternoon after TEPCO received training on it at the base. Plans are being made for the U.S. Navy to provide two fresh water barges to the site as well. No delivery date has been established yet, as there are concerns about possible harbor damage from earthquake. The NRC team also reports that they have accepted 5 seats within the TEPCO Emergency Operations Center (EOC). The team will go to the EOC for the first time Friday morning (JST) with an INPO representative.

INPO/DOE has accepted action to figure out how to remove spent fuel from the site. The Japanese provided a list of the things they would accept, including the million doses of KI, bottled water, radiation monitoring equipment, robotics and remote control equipment. DOD and DOE have the lead.

The NRC Reactor Safety Team has provided a set of recommendations pertaining to severe accident management strategies to the NRC team in Japan. The recommendations were coordinated with GEH, EPRI, INPO, Naval Reactors and DOE.

The NRC Protective Measures Team developed guidance, at the request of State Dept., to be provided to Americans such that they could temporarily re-enter the 50-mile evacuation zone (not to enter the Japanese 20 Km evacuation zone) for the purposes of retrieving personal effects. Guidance was provided to the NRC Japan team to get to be forwarded to the Ambassador.

The Liaison Team is nearing completion of assembling briefing information to support the Chairman's meeting with the Japanese Ambassador at 11:00 a.m. this morning. The team has developed some information, coordinating with the NRC Site Team in Japan, specifically related to effectiveness of coordination. To summarize, coordination has been improving.

Handwritten signature/initials

March 26, 2011

0600 EDT

Briefing Sheet Fukushima Daiichi

Plant status updates:

- Freshwater injection to Units 1 and 3. (source is a reservoir)
- Borated freshwater has started to be injected into Unit 2 (source is a reservoir)
- Flooding in turbine building of Unit 3. Found elevated iodine 131 and lanthanum 140 in samples indicating potential leakage from core.
- RHR pump on Unit 5 is restored.
- NISA update at 0500 EDT on 3/25, Electrical power is available up to all 6 units. For Units 1-4, the licensee is in the process of meggering and testing components to see which ones can be safely energized. Lights are on in the control rooms, and licensee is in the process of restoring ventilation.

Japanese government officials have recommended to residents living within 20 to 30 km of the site to voluntarily evacuate their homes—not because of changing conditions at the site—but because of increasingly difficult logistical issues.

Per NRC Japan team, one day training has been completed on the Bechtel pumping system. There will be an additional day training completed 26 March and then the Self Defense Force stands ready to move equipment out to the site.

The U.S. Navy is sending two fresh water barges to the site. The first barge has been delayed due to inclement weather, and there remain concerns about possible harbor damage from earthquake, which could make it difficult to dock.

The NRC Reactor Safety Team has provided a coordinated (GEH, EPRI, INPO, NR, DOE) set of recommendations pertaining to severe accident management strategies to the NRC team in Japan. These recommendations were provided to TEPCO. A slightly updated version will be discussed this morning on a conference call with the principals for the purpose of obtaining concurrence.

The Nuclear Energy Institute has volunteered to provide the NRC with environmental sampling data from U.S. nuclear power plants. The NRC is sharing this information with the EPA who is the central point of contact for this information. The public U.S. radiation monitoring data (RADNET) is posted on EPA's public website.

Chuck Casto and John Monninger travelling to J-Village, which is less than 10 miles from the site and tomorrow to do recon to see if we can get better information or provide better support.

Liaison team is working a task to create a roadmap that analyzes summaries of Deputies calls in U.S. and corresponding meetings in Japan. The goal is to ensure that roles and responsibilities for the responding Agencies are clear and understood, and to help ensure that no conflicting or inconsistent efforts are underway.

500/58

March 26, 2011

0720 EDT

Briefing Sheet Fukushima Daiichi

Plant status updates:

- Freshwater injection to Units 1 and 3. (source is a reservoir)
- Borated freshwater has started to be injected into Unit 2 (source is a reservoir)
- Flooding in turbine building of Unit 3. Found elevated iodine 131 and lanthanum 140 in samples indicating potential leakage from core.
- RHR pump on Unit 5 is restored.
- NISA update at 0500 EDT on 3/25, Electrical power is available up to all 6 units. For Units 1-4, the licensee is in the process of meggering and testing components to see which ones can be safely energized. Lights are on in the control rooms, and licensee is in the process of restoring ventilation.

Japanese government officials have recommended to residents living within 20 to 30 km of the site to voluntarily evacuate their homes—not because of changing conditions at the site—but because of increasingly difficult logistical issues.

Per NRC Japan team, one day training has been completed on the Bechtel pumping system. There will be an additional day training completed 26 March and then the Self Defense Force stands ready to move equipment out to the site.

The U.S. Navy is sending two fresh water barges to the site. The first barge has been delayed due to inclement weather, and there remain concerns about possible harbor damage from earthquake, which could make it difficult to dock.

The NRC Reactor Safety Team has provided a coordinated (GEH, EPRI, INPO, NR, DOE) set of recommendations pertaining to severe accident management strategies to the NRC team in Japan. These recommendations were provided to the NRC Site Team. A slightly updated version will be discussed this morning on a conference call with the principals for the purpose of obtaining concurrence.

The Nuclear Energy Institute has volunteered to provide the NRC with environmental sampling data from U.S. nuclear power plants. The NRC is sharing this information with the EPA who is the central point of contact for this information. The public U.S. radiation monitoring data (RADNET) is posted on EPA's public website.

Chuck Casto and John Monninger travelling to J-Village, which is less than 10 miles from the site and tomorrow to do recon to see if we can get better information or provide better support.

Liaison team is working a task to create a roadmap that analyzes summaries of Deputies calls in U.S. and corresponding meetings in Japan. The goal is to ensure that roles and responsibilities for the responding Agencies are clear and understood, and to help ensure that no conflicting or inconsistent efforts are underway.

DDP/59



China Meteorological Administration

**National Meteorological Center
Beijing, China**

RSMC for Environmental Emergency Response

FAX: (86 10) 68407469, (86 10) 62172909

Tel: (86 10) 68408594, (86 10) 58993295

Email: RSMC@cma.gov.cn

TO: Operational Contacts of National Meteorological Services in RAI,
IAEA, WMO Secretariat,
RSMC Tokyo, and
RSMC Obninsk

From: RSMC Beijing

Date: Mar 26, 2011

Time: 22:00 UTC

Dear Colleagues,

Please find attached the Joint Statement of RAI for Environmental Emergency Response (EER) distributed by RSMC Tokyo, RSMC Obninsk, and RSMC Beijing.

Best regards,
RSMC Beijing

Total No. of pages including this sheet: 3

1/3
Dad/60

Draft of JOINT STATEMENT

by: RSMC Tokyo(JP), RSMC Ozninsk(RU) and RSMC Beijing(CN)

Emergency notified by the IAEA (Emergency)

Issued: 22:00 UTC, Mar. 26, 2011

RADIOLOGICAL EVENT DETAILS

Source:

Fukushima Daiichi, Japan

Location:

37.4206 degrees North latitude, 141.0329 degrees East longitude

Release date-time:

From: 17:00 UTC 26 Mar 2011

To: 17:00 UTC 29 Mar 2011

Comments:

Emergency Accident

Weather Situation

It is mostly fine or cloudy around Fukushima. An upper transversal trough passes over Japan Island and it is weaken when moving eastward in the future 72 hours and it brings northwest wind blowing over Japan. A ridge of high pressure covers Japan Island and the south area of Japan at low level and will move eastward. A small low pressure system may affect the Island on the 29th and small precipitations will be expected around the central part of Japan.

Trajectories

RSMC Beijing and RSMC Tokyo predict that the tracers at 500m and 1500m are moving to the southeast during the first 24 hours and will rotate clockwise during the rest of the period. The trajectory at 500m of RSMC Ozninsk is also similar with the other two RSMCs, while they forecast the tracer at 1500m is moving to east-northeast. At 3000m, RSMC Beijing predicts that the tracer is moving to the southeast during the first 48 hours and will rotate clockwise during the rest of the period; RSMC Tokyo's trajectory shows it is moving to the east-southeast in 72 hours; while RSMC Ozninsk predicts that it is moving to the east-northeast during the period.

Exposure

The simulation results of three RSMCs show that the exposure areas will spread over

eastern part of Japan and toward southeast during the first 48 hours and then diffuse to the north western part of the Pacific Ocean.

Depositions

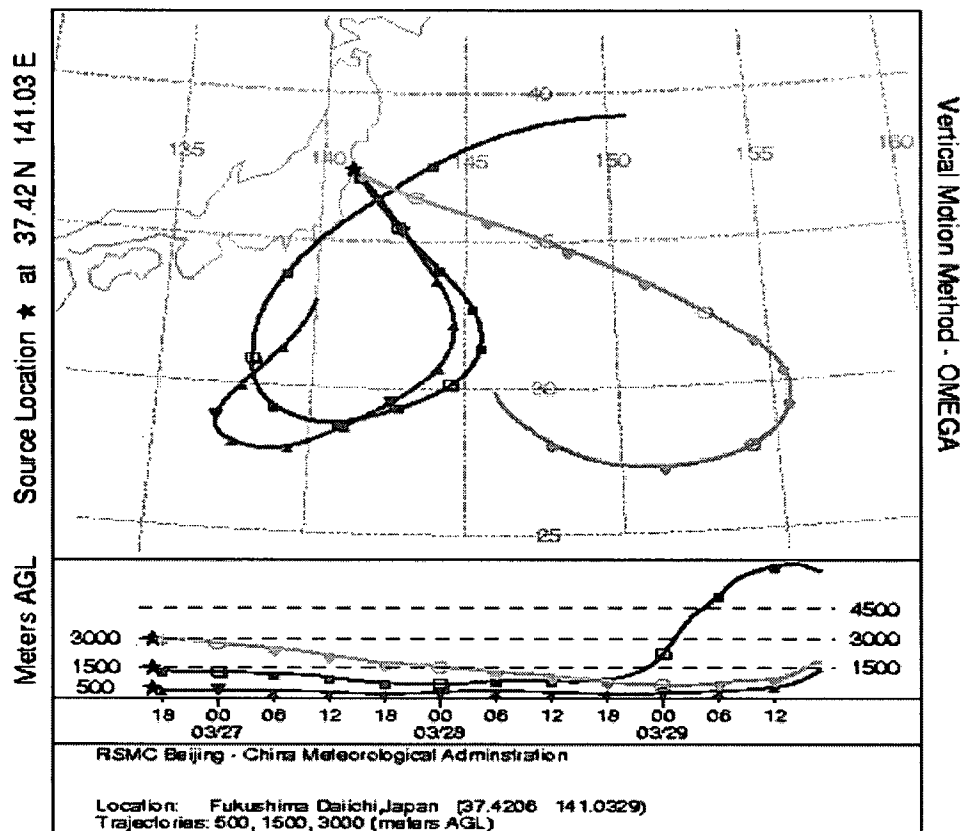
From three RSMCs' deposition charts, we could get that the deposition areas for the whole period will cover the northern, eastern and central parts of Japan and the north western part of Pacific Ocean.

Summary

There would be a hazard around the northern, eastern and central parts of Japan and the north western part of the Pacific Ocean.

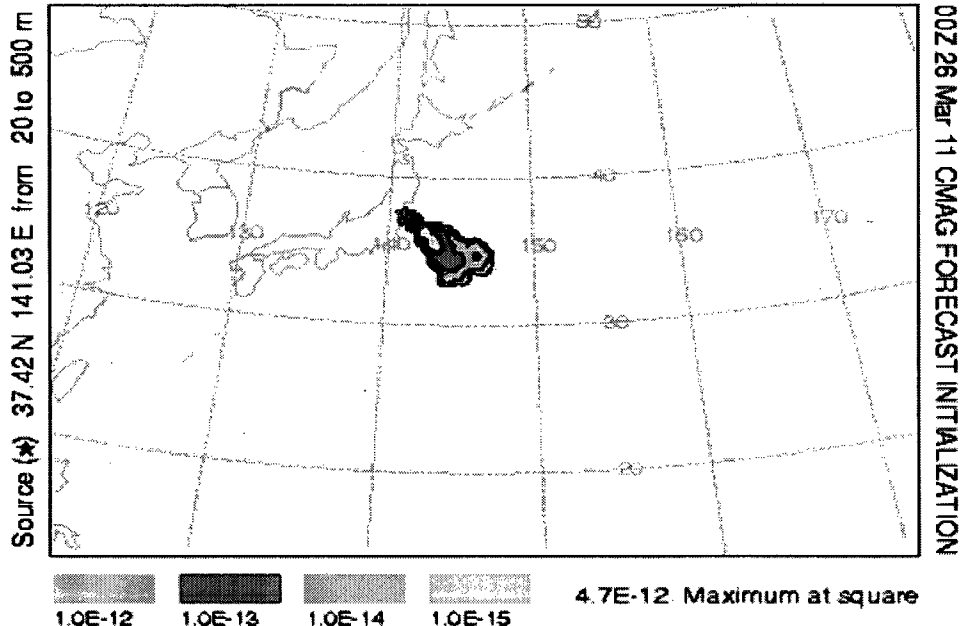
END

RSMC BEIJING - CHINA METEOROLOGICAL ADMINISTRATION
 Forward trajectories starting at 17 UTC 26 Mar 11
 00 UTC 26 Mar CMAG Forecast Initialization



RSMC BEIJING - CHINA METEOROLOGICAL ADMINISTRATION

Deposition at Ground-Level (Bq/m2)
Integrated from 12z 26 Mar to 12z 27 Mar (UTC)
I131 Release Started at 17Z 26 Mar (UTC)

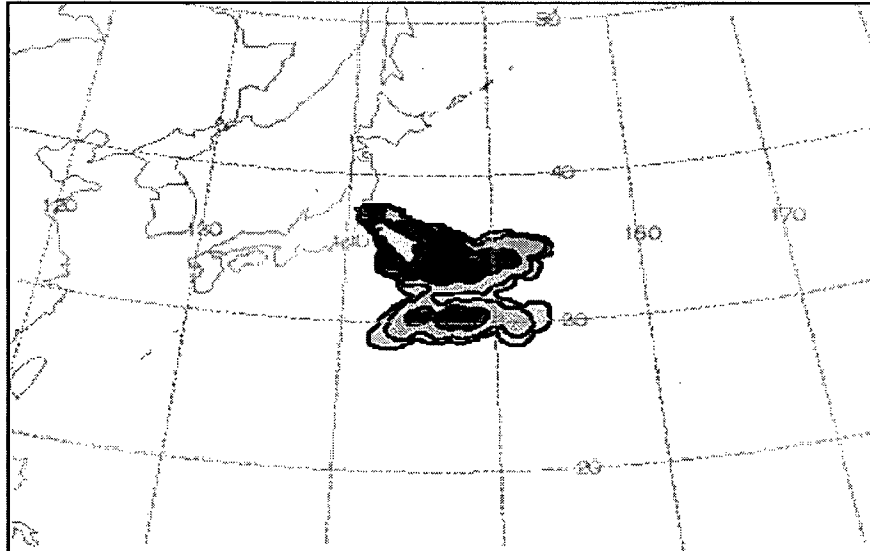


Location: Fukushima Daiichi, Japan (37.4206 141.0329)
Meteorology: GT213
Emission: 1.00 Unit I131 over 72 hr
Distribution: Uniform between 0 - 500 m agl
Deposition: Wet and Dry (0.1 cm/s)
Notes: Contours may change from map to map
Results based on default values

RSMC BEIJING - CHINA METEOROLOGICAL ADMINISTRATION

Deposition at Ground-Level (Bq/m²)
Integrated from 12z 26 Mar to 12z 28 Mar (UTC)
1131 Release Started at 17Z 26 Mar (UTC)

Source (*) 37.42 N 141.03 E from 20 to 500 m



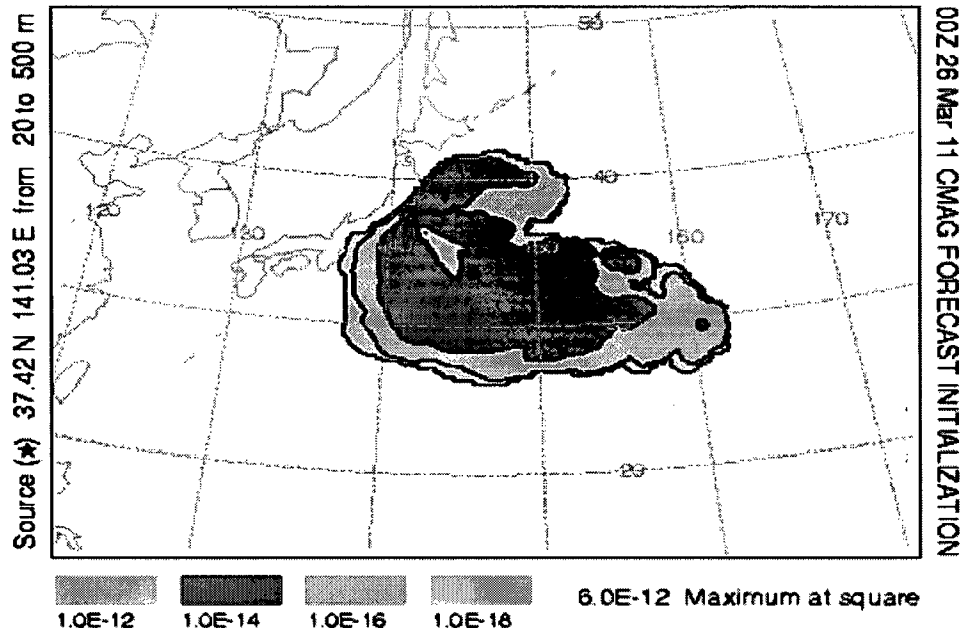
00Z 26 Mar '11 CMAG FORECAST INITIALIZATION

1.0E-12 1.0E-13 1.0E-14 1.0E-15 5.9E-12 Maximum at square

Location: Fukushima Daiichi, Japan (37.4208 141.0329)
Meteorology: GT213
Emission: 1.00 Unit 1131 over 72 hr
Distribution: Uniform between 0 - 500 m agl
Deposition: Wet and Dry (0.1 cm/s)
Notes: Contours may change from map to map
Results based on default values

RSMC BEIJING - CHINA METEOROLOGICAL ADMINISTRATION

Deposition at Ground-Level (Bq/m²)
Integrated from 12z 26 Mar to 12z 29 Mar (UTC)
I131 Release Started at 17Z 26 Mar (UTC)



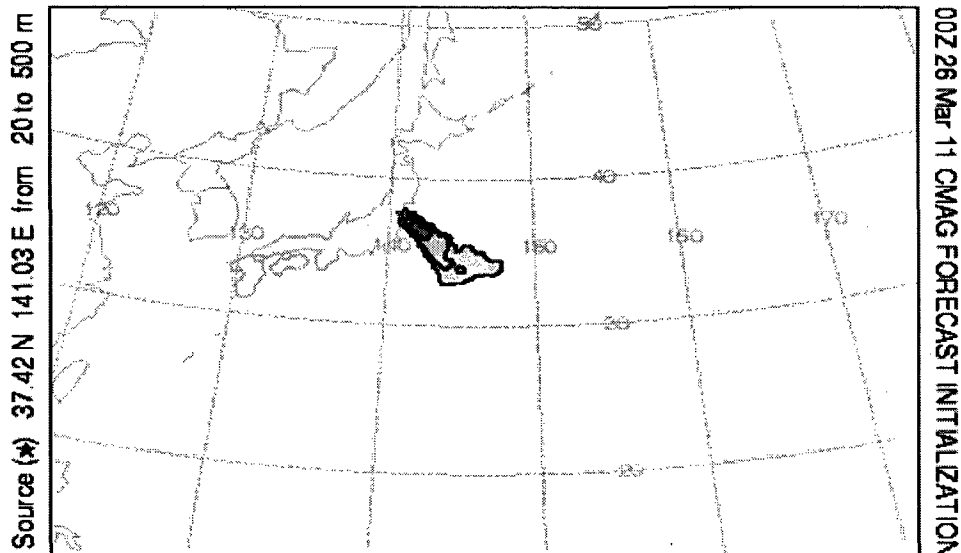
Location: Fukushima Daiichi, Japan (37.4206 141.0329)
Meteorology: GT213
Emission: 1.00 Unit I131 over 72 hr
Distribution: Uniform between 0 - 500 m agl
Deposition: Wet and Dry (0.1 cm/s)
Notes: Contours may change from map to map
Results based on default values

RSMC BEIJING - CHINA METEOROLOGICAL ADMINISTRATION

Exposure averaged between 0 m and 500 m (Bq-s/m³)

Integrated from 12z 26 Mar to 12z 27 Mar (UTC)

I131 Release Started at 17Z 26 Mar (UTC)



1.0E-09 1.0E-10 1.0E-11 1.0E-12 5.0E-09 Maximum at square

Location: Fukushima Daiichi, Japan (37.4206 141.0329)

Meteorology: GT213

Emission: 1.00 Unit I131 over 72 hr

Distribution: Uniform between 0 - 500 m agl

Deposition: Wet and Dry (0.1 cm/s)

Notes: Contours may change from map to map

Results based on default values

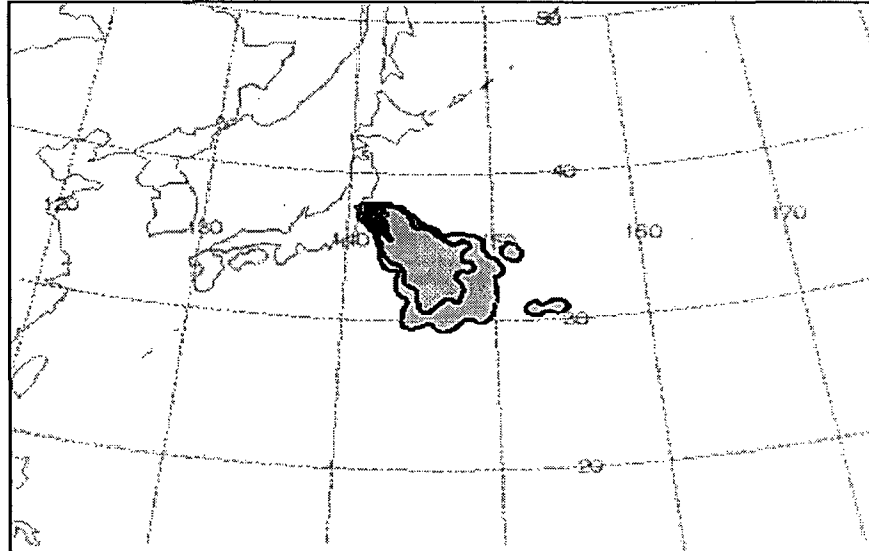
RSMC BEIJING - CHINA METEOROLOGICAL ADMINISTRATION

Exposure averaged between 0 m and 500 m (Bq-s/m3)

Integrated from 12z 27 Mar to 12z 28 Mar (UTC)

I131 Release Started at 17Z 26 Mar (UTC)

Source (*) 37.42 N 141.03 E from 20 to 500 m



00Z 26 Mar 11 CMAG FORECAST INITIALIZATION



Location: Fukushima Daiichi, Japan (37.4206 141.0329)
 Meteorology: GT213
 Emission: 1.00 Unit I131 over 72 hr
 Distribution: Uniform between 0 - 500 m agl
 Deposition: Wet and Dry (0.1 cm/s)
 Notes: Contours may change from map to map
 Results based on default values

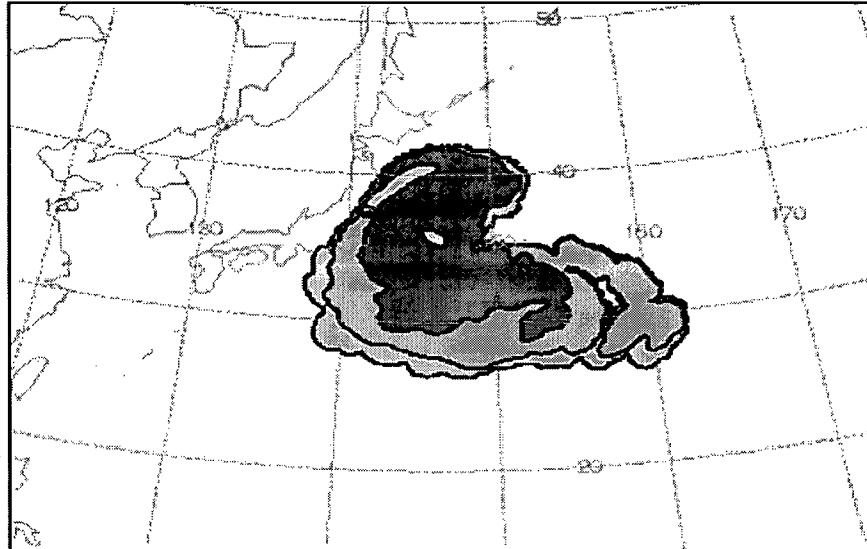
RSMC BEIJING - CHINA METEOROLOGICAL ADMINISTRATION

Exposure averaged between 0 m and 500 m (Bq-s/m³)

Integrated from 12z 28 Mar to 12z 29 Mar (UTC)

I131 Release Started at 17Z 26 Mar (UTC)

Source (*) 37.42 N 141.03 E from 20 to 500 m



00Z 26 Mar 11 CMAG FORECAST INITIALIZATION



Location: Fukushima Daiichi, Japan (37.4206 141.0329)
 Meteorology: GT213
 Emission: 1.00 Unit I131 over 72 hr
 Distribution: Uniform between 0 - 500 m agl
 Deposition: Wet and Dry (0.1 cm/s)
 Notes: Contours may change from map to map
 Results based on default values

(Appendix)

Results of nuclide analysis in Seawater Sample

Sampling day & time	8:30 March 25th, 2011			
Sampling place	1F Near southern Water Discharge Gate (approx. 330m from water discharge gate of Unit 1~4 in south direction)			
Measureing method	Analysis of 500 ml Seawater Sample by Ge-Semiconductor Nuclide Analyzer in Fukushima Dai-ni NPS			
Mesuring time	1,000 seconds			
Nuclide (Half life)	①Conc. of Radioactivity (Bq/cm ³)	②Conc. of Detection Limit (Bq/cm ³)	③Consentration limits specified in the Notice based on the Rules for Establishment, Operation, etc. of Commercial Power Reactor Bq/cm ³ (Concentration Limits in Water Outside the Environmental Monitoring Area shown in the 6th Column of Attached Table 2)	Ratio of ① to ③ (①/③)
Co-60 (approx. 5 days)	5.9E-02	2.0E-02	2E-01	0.3
Mo-99 (approx. 66 hours)	2.1E-01	1.7E-01	1E+00	0.2
I-131 (approx. 8 days)	5.0E+01	6.2E-02	4E-02	1250.8
I-132 (approx. 2 hours)	3.3E+00	7.7E-02	3E+00	1.1
Te-132 (approx. 3 days)	2.2E-01	4.0E-02	2E-01	1.1
Cs-134 (approx. 2 years)	7.0E+00	3.9E-02	6E-02	117.3
Cs-136 (approx. 13 days)	8.0E-01	3.9E-02	3E-01	2.7
Cs-137 (approx. 30 years)	7.2E+00	3.5E-02	9E-02	79.6
Ba-140 (approx. 13 days)	1.2E+00	1.5E-01	3E-01	3.9
La-140 (approx. 2 days)	5.8E-01	1.3E-02	4E-01	1.4

※ 0.0E-0descripts 0.0×10-0

March 26, 2011

Nuclear and Industrial Safety Agency

Seismic Damage Information (the 55th Release)

(As of 18:30 March 26th, 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. Nuclear Power Stations (NPSs)

● Fukushima Dai-ichi NPS

- Lighting in the Central Operation Room of Unit 2 was recovered. (16:46 March 26th)

(Attached sheet)

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

● Fukushima Dai-ichi NPS, TEPCO

(Okuma Town and Futaba Town, 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 11:00 March 26th)

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Reactor Pressure* ¹ [MPa]	0.452(A) 0.481(B)	0.074(A) 0.074(B)	0.139(A) 0.000(C)	—	0.108	0.104
CV Pressure (D/W) [kPa]	275	110	106.8	—	—	—
Reactor Water Level* ² [mm]	−1,650(A) −1,600(B)	−1,200(A) Not available(B)	−1,850(A) −2,300(B)	—	2,123	2,094
Suppression Pool Water Temperature (S/C) [°C]	—	—	—	—	—	—
Suppression Pool Pressure (S/C) [kPa]	275	down scale	183.6	—	—	—
Spent Fuel Pool Water Temperature [°C]	—	57	—	Incorrect Indication	42.8	30.0
Time of Measurement	13:00 March 26th	13:00 March 26th	11:15 March 26th	11:00 March 24th	14:00 March 26th	14:00 March 26th

*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 Reactor Core was increased by utilizing the Feedwater Line in addition to the Fire Extinguish Line. (2m³/h → 18m³/h). (02:33 March 23rd) Later, it was switched to the Feedwater Line only (around 11m³/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)
- As the result of concentration measurement in the stagnant water on the basement floor of the turbine building, $2.1 \times 10^5 \text{Bq/cm}^3$ of ¹³¹I (Iodine) and $1.8 \times 10^6 \text{Bq/cm}^3$ of ¹³⁷Cs (Caesium) were detected as major radioactive nuclides.
- Fresh water injection to RPV is carrying out. (As of 18:30 March 26th)

<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 Pool (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)
- White smoke was confirmed to generate continuously (As of 08:00 March 26th)
- Lighting of Central Operation Room was recovered (16:46 March 26th)
- Injection of fresh water to RPV was carrying out. (As of 18:30 March 26th)

<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 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)
- Water spray by Kawasaki City Fire Bureau supported by Tokyo Fire Department was carried out. (From 13:28 till 16:00 March 25th)
- White smoke was confirmed to generate continuously (As of 08:00 March 26th)
- Fresh water injection to RPV is carrying out. (As of 18:30 March 26th)

<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 °C 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)
- Water spray using Concrete Pump Truck (50t/h) was started. (19:05 March 25th)
- 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. (As of 08:00 March 26th)

<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) of Unit 5 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 of Unit 5 was completed (16:14 March 24th) and cooling was started again. (16:35 March 24th)
- Power supply for the temporary pump for RHRS of Unit 6 was switched from the temporary to the permanent. (15:38 and 15:42 March 25th)

<Common Spent Fuel Pool>

- It was confirmed that the water level of Spent Fuel Pool was maintained full at after 06:00 March 18th.
- Water spray over the Common Spent Fuel Pool was started (From 10:37 till 15:30 March 21st)
- The power was started to be supplied (15:37 March 24th) and cooling was also started. (18:05 March 24th)
- As of 08:30 March 26th, water temperature of the pool was around

46°C.

<Other>

- As the result of nuclide analysis at around the south Water Discharge Gate, $5.0 \times 10^1 \text{ Bq/cm}^3$ of ^{131}I (Iodine) (1250.8 times higher than the limit of concentration of water outside the Environmental Monitoring Area) was detected.

● 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 18:00 March 26th)

	Unit	Unit 1	Unit 2	Unit 3	Unit 4
Reactor Pressure*1	MPa	0.15	0.12	0.11	0.13
Reactor water temperature	°C	28.9	28.5	33.3	28.9
Reactor water level*2	mm	9,146	10,246	8,548	8,785
Suppression pool water temperature	°C	25	26	26	27
Suppression pool pressure	kPa (abs)	107	106	103	105
Remarks		cold	cold	cold	cold

	shutdown	shutdown	shutdown	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. 0.98 μ SV/h (16:00 March 25th) → approx. 0.86 μ SV/h (16:00 March 26th)

(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-ichi 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-ichi 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

(March 12th)

05:22 Regarding Unit 1 of Fukushima Dai-ichi 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-ichi 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 Unit 4 of Fukushima Dai-ichi 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-ichi 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-ichi 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 18:30 March 26th) >

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.
- (6) Fukushima Prefecture has started the screening from 13 March. It is carried out by rotating the evacuation sites and at the 13 places (set up permanently) such as health offices. Up until March 24th, the screening

was done to 87,813 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. Exposure of workers

As for the workers conducting operations in Fukushima Dai-ichi NPS, the total number of people who were at the level of exposure more than 100mSv becomes 18, as the 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 on March 24.

For two out of the three workers, 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 after that, on March 25th, all of the three workers arrived at the National Institute of Radiological Sciences in the Chiba Prefecture. As the result of examination, the level of exposure of their legs was estimated to be from 2 to 6 Sv. The level of exposure of both legs and internal did not require medical treatment, but they decided to monitor the progress of all three workers in the hospital.

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/cm³ in total of each nuclides.

3. Others

- (1) 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.
- (2) As for policeman, the decontaminations of two policemen were confirmed by the National Police Agency. Nothing unusual was reported.

- (3) 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/cm² 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 18:30 March 26th)>

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.

<Directives 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.

(1) Items under the suspension of shipment and restriction of intake (As of March 23rd)

Prefectures	Suspension of shipment	Restriction of intake
Fukushima Prefecture	Non-head type leafy vegetables, head type leafy vegetables, flowerhead brassicas (Spinach, Cabbage, Broccoli, Cauliflower, <i>Komatsuna</i> *, <i>Kukitachina</i> *, <i>Shinobufuyuna</i> *, Rape, <i>Chijirena</i> , <i>Santouna</i> *, <i>Kousaitai</i> *, <i>Kakina</i> *, etc.), Turnip, Raw milk	Non-head type leafy vegetables, head type leafy vegetables, flowerhead brassicas (Spinach, Cabbage, Broccoli, Cauliflower, <i>Komatsuna</i> *, <i>Kukitachina</i> *, <i>Shinobufuyuna</i> , Rape, <i>Chijirena</i> , <i>Santouna</i> *, <i>Kousaitai</i> *, <i>Kakina</i> *, etc.)
Ibaraki Pref.	Spinach, <i>Kakina</i> *, Parsley, Raw milk	
Tochigi Pref.	Spinach, <i>Kakina</i> *	
Gunma Pref.	Spinach, <i>Kakina</i> *	

*a green vegetable

Scope under restriction	Water service (Local governments requested for restriction)
All residents	Iitate small water service (Iitate-village, Fukushima Prefecture)
Babies ・ Water services that continue to respond to the directive	<p><Fukushima Prefecture></p> <p>Koriyama-city water supply service (Koriyama-city)</p> <p>Minami-soma-city water service (Minami-soma-city)</p> <p>Kawamata-town water service (Kawamata-town)</p> <p>Iwaki-city water supply service (Iwaki-city)</p> <p><Ibaraki Prefecture></p> <p>Tokai-village water supply service (Tokai-village)</p> <p>Suifu area north small water service (Hitachiota-city)</p> <p>Kita-ibaraki-city water service (Kita-ibaraki-city)</p> <p>Kasama-city water service (Kasama-city)</p> <p>Furukawa-city water service (Furukawa-city)</p> <p>Toride-city water service (Toride-city)</p>
・ Tap-water supply service that continues to respond to the directive	<p><Chiba Prefecture></p> <p>Kita-Chiba wide area tap-water supply service</p>

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.

(Contact Person)

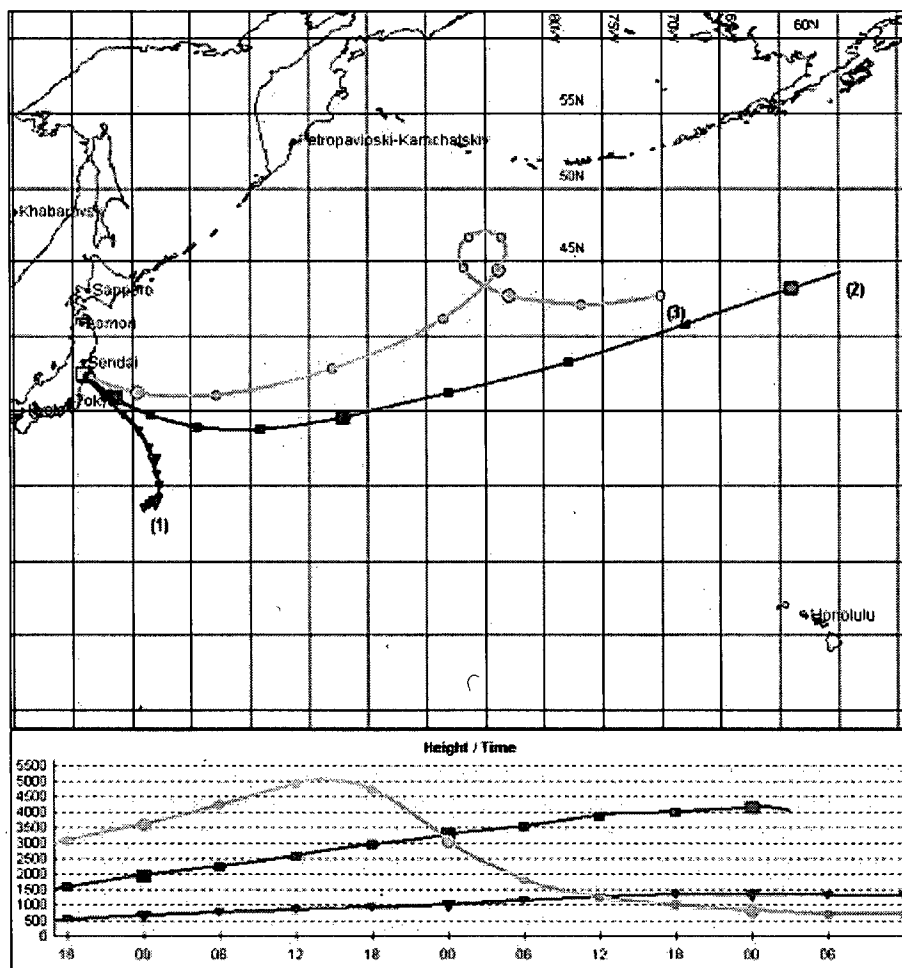
Mr. Toshihiro Bannai

Director, International Affairs Office,
NISA/METI

Phone:+81-(0)3-3501-1087

RSMC Obninsk, Russia

Forward trajectories



Levels: (1) 500 m (2) 1500 m (3) 3000 m

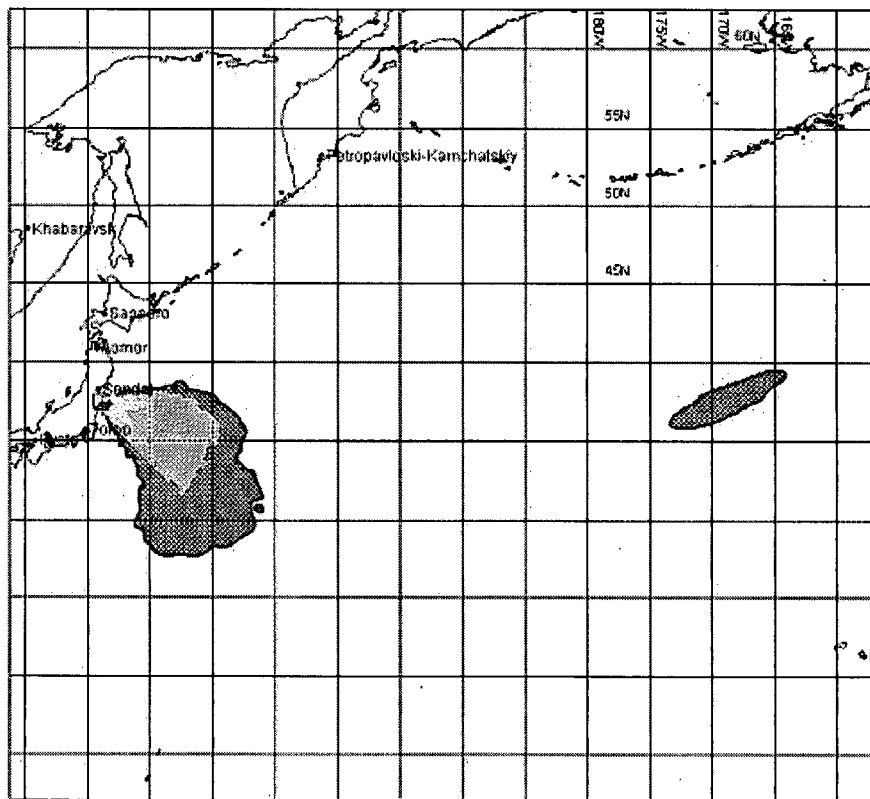
Date of release: 26 Mar 2011, 17:00 UTC

Source location: 141.03° E, 37.42° N

RSMC Obninsk, Russia

Total deposition

from 26 Mar 2011, 12:00 to 29 Mar 2011, 12:00 UTC



Contours:  1e-11  1e-12  1e-13  1e-14

Maximum value: 4.0e-11 Bq/m2

Date of release: 26 Mar 2011, 17:00 UTC

Duration: 72:00

Source location: 141.03° E, 37.42° N

Vert. distribution: uniform 20-500 m

Total release: 1 Bq of I-131

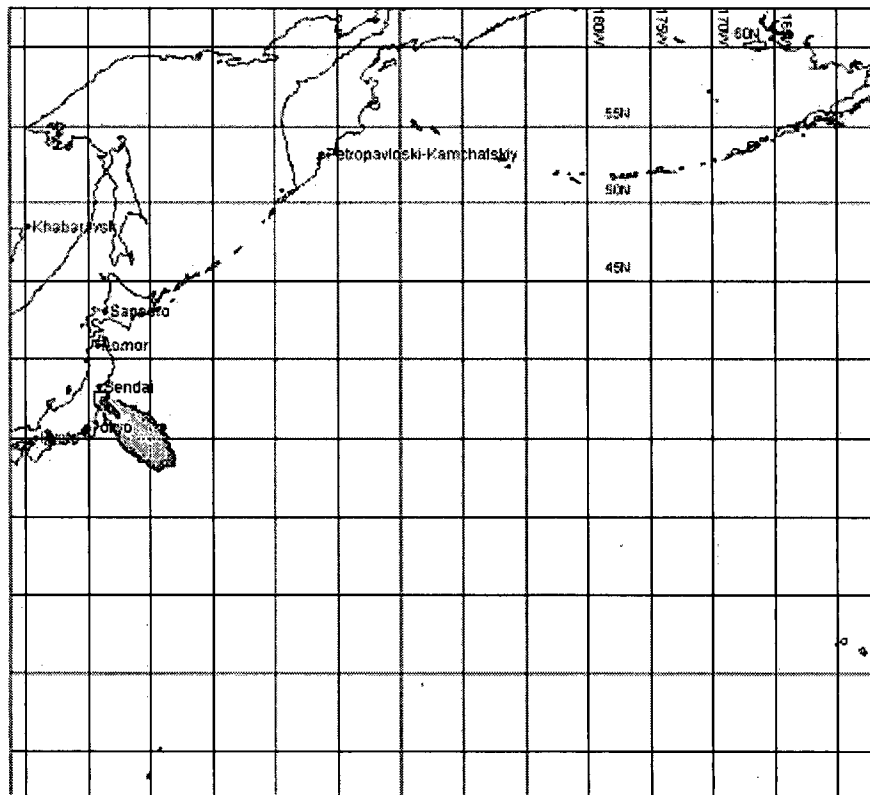
Contour values may change from chart to chart

Results based on default initial values

RSMC Obninsk, Russia

Time integrated surface to 500m layer concentrations

from 26 Mar 2011, 12:00 to 27 Mar 2011, 12:00 UTC



Contours:  1e-10  1e-11  1e-12  1e-13

Maximum value: 1.6e-09 Bq*s/m³

Date of release: 26 Mar 2011, 17:00 UTC

Duration: 72:00

Source location: 141.03° E, 37.42° N

Vert. distribution: uniform 20-500 m

Total release: 1 Bq of I-131

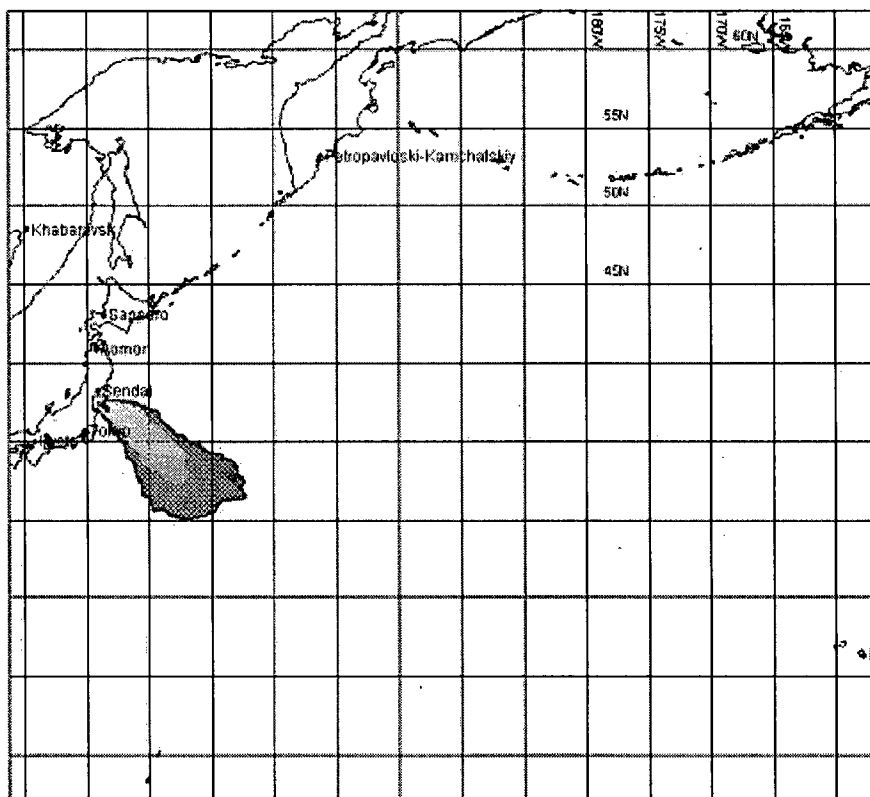
Contour values may change from chart to chart

Results based on default initial values

RSMC Obrninsk, Russia

Time integrated surface to 500m layer concentrations

from 27 Mar 2011, 12:00 to 28 Mar 2011, 12:00 UTC



Contours:  1e-09  1e-10  1e-11  1e-12

Maximum value: 4.9e-09 Bq*s/m3

Date of release: 26 Mar 2011, 17:00 UTC

Duration: 72:00

Source location: 141.03° E, 37.42° N

Vert. distribution: uniform 20-500 m

Total release: 1 Bq of I-131

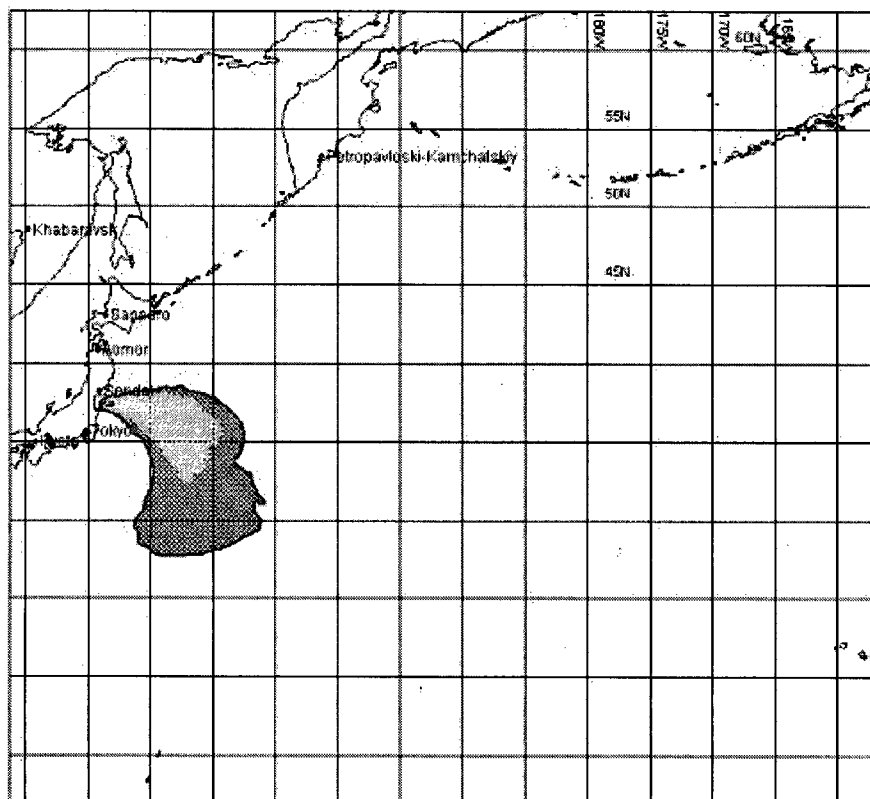
Contour values may change from chart to chart

Results based on default initial values

RSMC Obninsk, Russia

Time integrated surface to 500m layer concentrations

from 28 Mar 2011, 12:00, to 29 Mar 2011, 12:00 UTC



Contours: 1e-09 1e-10 1e-11 1e-12

Maximum value: 4.3e-09 Bq*s/m3

Date of release: 28 Mar 2011, 17:00 UTC

Duration: 72:00

Source location: 141.03° E; 37.42° N

Vert. distribution: uniform 20-500 m

Total release: 1 Bq of I-131

Contour values may change from chart to chart

Results based on default initial values

26 MARCH 2011 18:00 UTC



IAEA

International Atomic Energy Agency

Incident and Emergency Centre

Status of the Fukushima Daiichi Nuclear Power Plant

Note: Updated and new information is underlined

The IAEA receives information from a variety of official Japanese sources through the nation's national competent authority, the Nuclear and Industrial Safety Agency. Based on information received by 18:00 UTC on March 26, 2011 the following updated information related to the reactor units at the Fukushima Daiichi Nuclear Power Plant is provided:

AC Power—Units 1 to 4

The restoration work of off-site power is still in progress. Off-site power is connected to Units 1–4. Power distribution panels (Power Centre) in Units 2 and 4 have been connected to the off-site electricity supply. Individual components are still being checked prior to being energised. The lighting in units 1, 2 and 3 control rooms has been restored. Some instrumentation was recovered for units 1, 2 and 4. Due to the extent of damage inflicted by the earthquake and tsunami, it is not possible to estimate when equipment may be returned to service.

AC Power—Units 5 and 6

Power has been restored to a transformer and is being provided to Unit 5 and Unit 6 houseloads.

Unit 1

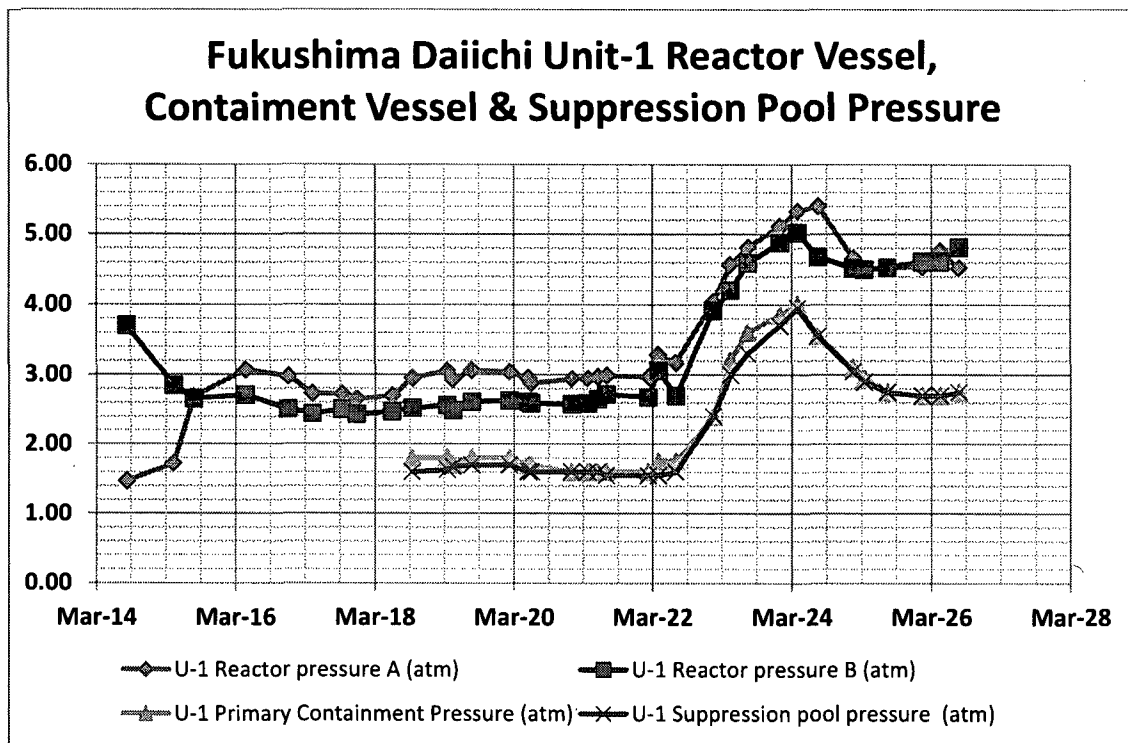
Fresh water continues to be injected into the reactor pressure vessel via a feedwater injection line at an indicated rate of about $7.2 \text{ m}^3/\text{h}$. The indicated temperature at the feed water nozzle of the Reactor Pressure Vessel (RPV) slightly increased at about to 212.3°C and at the bottom of RPV to 146.9°C .

White smoke was confirmed to generate continuously. (Around 23:00 UTC March 25).

The dose rate in the containment vessel (D/W) and suppression chamber (S/C) continued to decrease to 35.4 Sv/h and 23.4 Sv/h , respectively.

Water sample taken from the stagnant water on the basement floor of the turbine building shows the following concentration in radionuclides: I-131 (Iodine) $2.1 \times 10^5 \text{ Bq/cm}^3$, Cs-137 (Cesium) $1.8 \times 10^6 \text{ Bq/cm}^3$.

The pressure histories in the RPV and Containment Vessel are presented in the following graph.



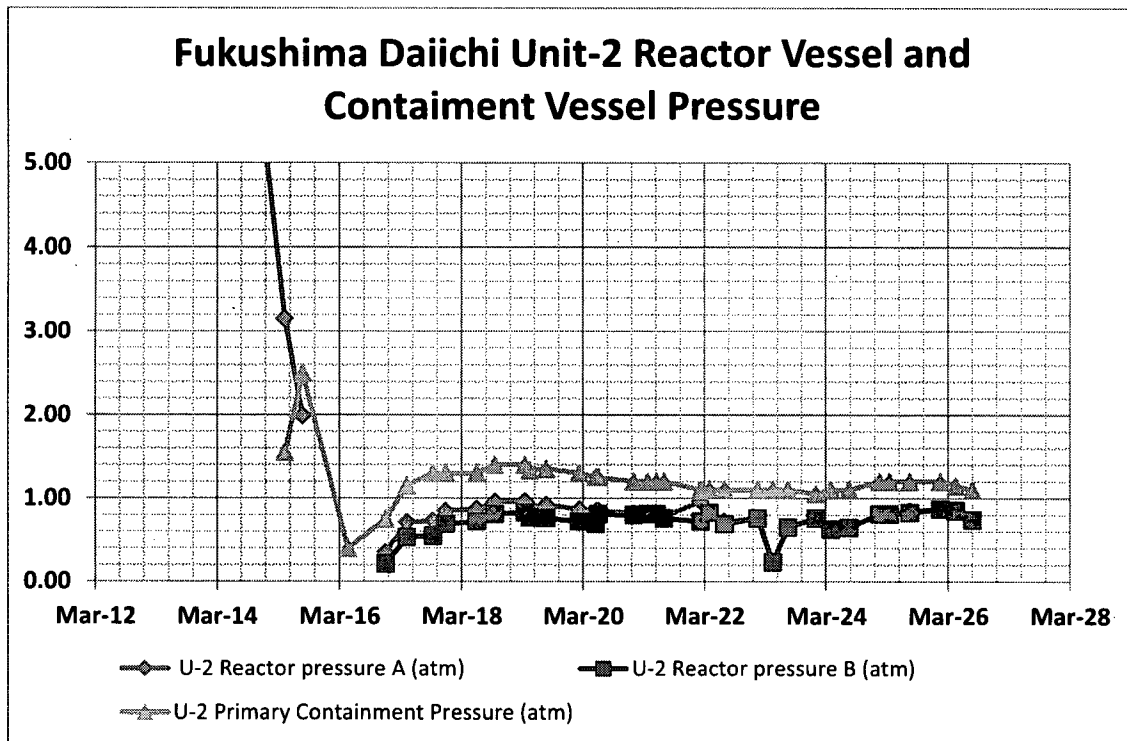
Unit 2

Fresh water is injected into the reactor pressure vessel an indicated rate of about 18.6 m³/h. The RPV temperature at the feed water nozzle and at the bottom head of RPV are stable at 107 °C and 99 °C, respectively at 13:00 UTC March 26.

White smoke was confirmed to generate continuously. (Around 23:00 UTC March 25)

The dose rates in the containment vessel (D/W) and the suppression chamber (S/C) continued to decrease at 43.2 Sv/h and 1.48 Sv/h, respectively. The spent fuel pool temperature increased and then stabilized at 57 °C 00:30 UTC March 26. New information was provided on water level for the spent fuel pool overflow tank, which is at 5.95 m.

The indicated RPV and Containment Vessel pressures are shown in the following graph.



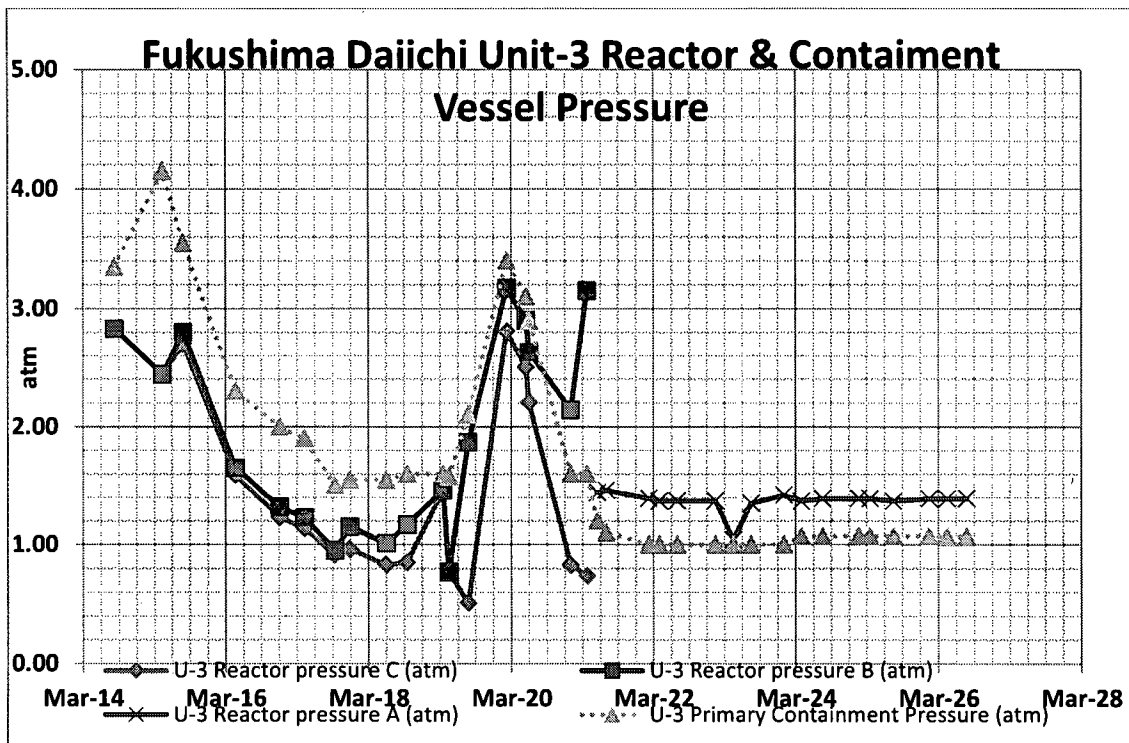
Unit 3

Fresh water is being injected into the RPV with the flowrate of 13.8 m³/h.

The RPV temperature measurement at the feed water nozzle is at 33.7 °C. The temperature at the bottom of RPV indication is decreasing to 100.4 °C at 13:00 UTC March 26. Seawater injection to the Spent Fuel Pool via the Cooling and Purification Line continues. White smoke is still being observed as of 23:00 UTC March 25.

The dose rate in the containment vessel (D/W) and suppression chamber (S/C) continued to decrease to 36.1 Sv/h and 1.4 Sv/h, respectively at 13:00 UTC March 26.

The RPV and Containment Vessel pressure are presented in the following graph.



*The instruments names and their values have been amended to reflect updated data

*The reactor pressure instrument C from March 21 is not shown due to unreliable data

Unit 4

From March 22 to March 25, 130 to 150 t of water was poured into the Spent Fuel Pool each day using a concrete pump. Sea water was also poured in through Spent Fuel Cooling System from 21:05 UTC on March 24 to 01:20 on March 25. White smoke is still being observed as of 23:00 UTC March 25.

New information was provided on water level for the spent fuel pool overflow tank, which is at 5.85 m.

Unit 5

The reactor remains in cold shutdown. Power has been restored to a transformer and is being provided to houseloads. The reactor water temperature increased to 43.8°C. The temperature in the spent fuel pool increased to 42.8°C as of 02:00 UTC March 26.

Unit 6

The reactor remains in cold shutdown. Power has been restored to a transformer and is being provided to houseloads. The RPV water temperature decreased to 21.3°C. The Spent Fuel Pool water temperature has slightly increased to 30.0°C

Units 1, 2, 3, 4, 5 and 6 - Plant Status

Parameter / Indications	Unit	Fukushima Daiichi					
		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Reactor Pressure Vessel Pressure	MPa	<u>0.452 (A)</u> <u>0.481 (B)</u>	<u>0.074 (A)</u> <u>0.074 (B)</u>	<u>0.139(A)</u> <u>0.00 (C)</u>	-	<u>0.108</u>	<u>0.104</u>
	atm	<u>4.52 (A)</u> <u>4.81 (B)</u>	<u>0.74 (A)</u> <u>0.74 (B)</u>	<u>1.39 (A)</u> <u>0.00 (C)</u>	-	<u>1.08</u>	<u>1.04</u>
Containment Vessel (Drywell) Pressure	kPa	<u>275</u>	<u>110</u>	<u>106.8</u>	-	-	-
	atm	<u>2.75</u>	1.10	<u>1.07</u>	-	-	-
Reactor Pressure Vessel Level	mm (above the top of active fuel)	<u>-1650 (A)</u> <u>-1600 (B)</u>	<u>-1200 (A)</u> (B) not available	<u>-1850 (A)</u> <u>-2300 (B)</u>	-	<u>2123</u>	<u>2094</u>
Suppression Pool Temperature	°C	No Data	No Data	No Data	No Data	No Data	No Data
Suppression Pool Pressure	kPa	<u>275</u>	Below the scale	<u>183.6</u>	-	-	-
	atm	<u>2.75</u>		<u>1.84</u>			
Adding water to Reactor Pressure Vessel	<ul style="list-style-type: none"> • Adding • Not adding • Unknown 	Fresh water continues to be injected into the reactor pressure vessel	<u>Fresh water continues to be injected into the reactor pressure vessel</u>	Fresh water continues to be injected into the reactor pressure vessel	-	Injection to RPV and the Spent Fuel Pool using make up water	Injection to RPV and the Spent Fuel Pool using make up water
Date/Time of Data Acquisition		<u>March 26</u> <u>04:00 UTC</u>	<u>March 26</u> <u>04:00 UTC</u>	<u>March 26</u> <u>02:15 UTC</u>	-	<u>March 26</u> <u>05:00 UTC</u>	<u>March 26</u> <u>05:00 UTC</u>

* All pressures are absolute pressure (pressure including normal atmospheric pressure)

** (A), (B) and (C) refer to three measurement instruments

Radiation Monitoring Data

Daiichi NPP – On-Site Monitoring

Updated on-site dose rates continue to trend downwards.

Monitoring in the Marine Environment

On March 22, MEXT announced an action plan for monitoring coastal waters near the Fukushima Daiichi NPP site. Air and seawater samples were collected from March 23 to 25 in coastal waters along transects that are separated by 10 kilometer intervals – sampling was performed along each transect to a distance of about 30 km offshore. The results published are presented below. Small variations were observed between the results for the sets of data.

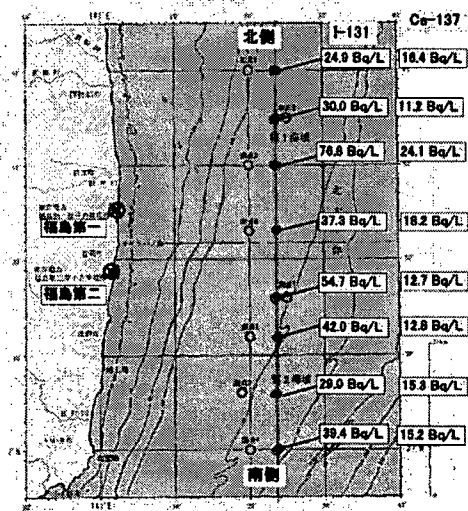
Sampling Point	Sampling Date and Time (UTC)	Seawater concentration (Bq/L)		Dose Rate (microSv/h)	Dust in Air Radionuclide Concentration (Bq/m ³)	
		I-131	Cs-137		I-131	Cs-137
1-1	22-Mar 23:10	24.9	16.4	0.034	0.133	0.00676
1-2	23-Mar 00:00	30.0	11.2	0.038	0.0623	0.0694
1-3	23-Mar 00:30	76.8	24.1	0.049	0.0936	ND
1-4	23-Mar 01:15	37.3	18.2	0.054	0.0866	0.016
2-1	23-Mar 02:20	54.7	12.7	0.035	ND	ND
2-2	23-Mar 03:00	42.0	12.8	0.030	ND	ND
2-3	23-Mar 03:37	29.0	15.3	0.040	ND	ND
2-4	23-Mar 04:32	39.4	15.2	0.040	ND	ND

Sampling Point	Sampling Date and Time (UTC)	Seawater concentration (Bq/L)		Dose Rate (microSv/h)	Dust in Air Radionuclide Concentration (Bq/m ³)	
		I-131	Cs-137		I-131	Cs-137
1-1	23-Mar 23:07	22.3	15.1	0.08	0.000213	ND
1-2	24-Mar 00:09	16.9	8.32	0.08	ND	0.0000467
1-3	24-Mar 01:00	57.4	26.1	0.060	0.00396	ND
1-4	24-Mar 02:00	59.1	16.0	0.046	0.0197	ND
2-1	24-Mar 02:48	40.5	11.1	0.055	0.00111	ND
2-2	24-Mar 03:35	36.2	16.9	0.080	ND	ND
2-3	24-Mar 04:24	33.4	12.3	0.060	ND	ND
2-4	24-Mar 05:18	37.5	13.4	0.059	ND	0.000493

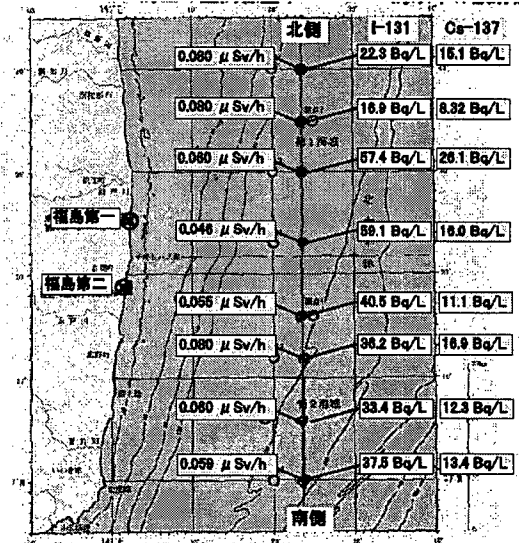
Sampling Point	Sampling Date and Time (UTC)	Seawater concentration (Bq/L)		Dose Rate (microSv/h)	Dust in Air Radionuclide Concentration (Bq/m ³)	
		I-131	Cs-137		I-131	Cs-137
1-1	24-Mar 22:55	3.5	ND	0.049	ND	ND
1-2	24-Mar 23:42	3.3	0.7	0.052	ND	ND
1-3	25-Mar 00:14	29.0	8.0	0.096	ND	ND
1-4	25-Mar 01:00	30.0	5.9	0.089	0.27	ND
2-1	25-Mar 01:52	25.0	3.1	0.062	ND	ND
2-2	25-Mar 02:17	18.0	2.6	0.039	ND	ND
2-3	25-Mar 02:58	13.0	1.7	0.065	ND	ND
2-4	25-Mar 03:32	12.0	2.7	0.055	9.7	ND

ND= Not Detected

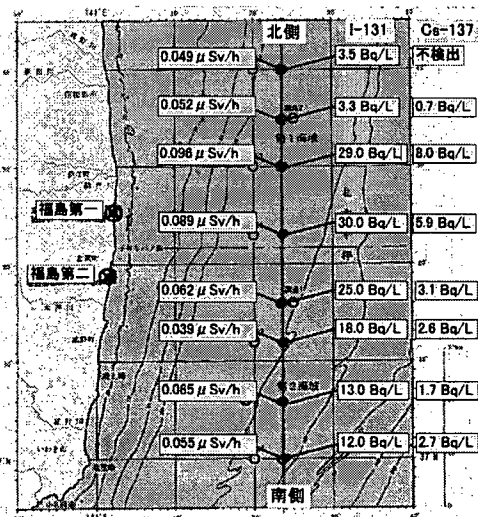
March 23



March 24



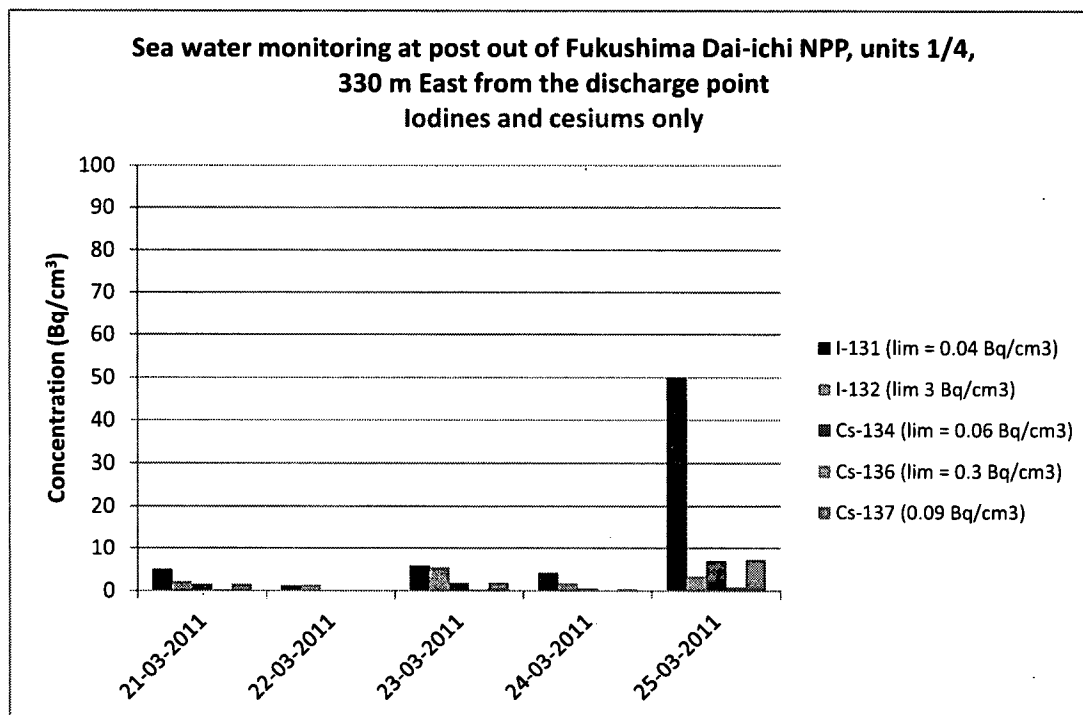
March 25

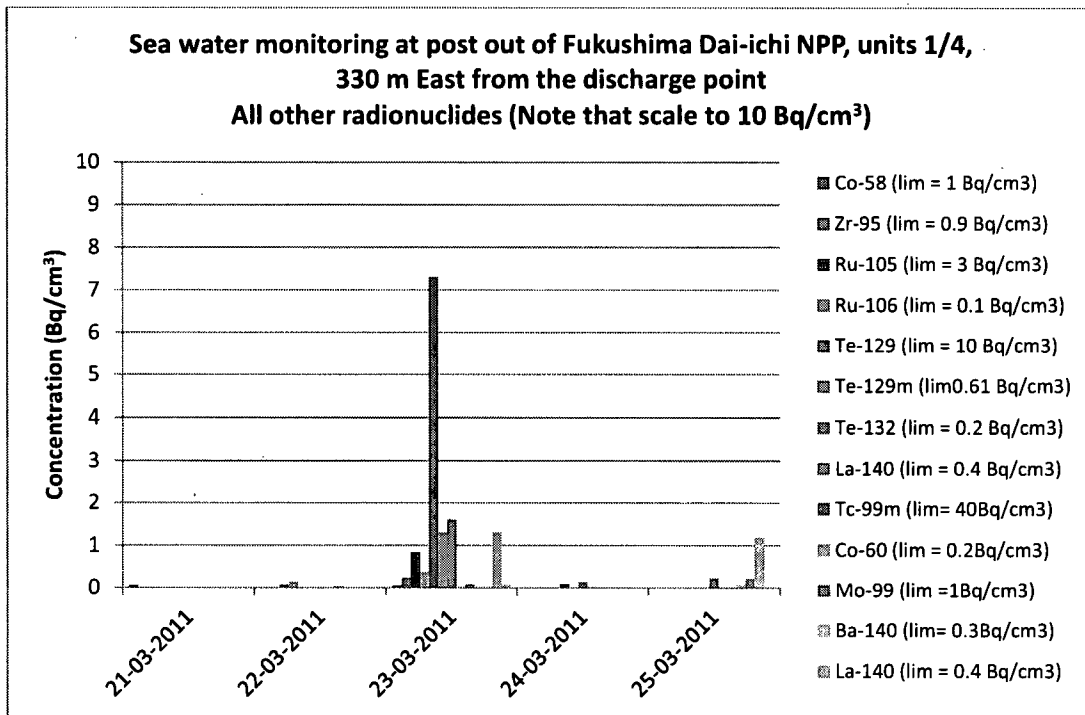


Seawater samples were collected daily at location 330 m from the common discharge point for Units 1-4. The results published are presented below. A significant increase at the radionuclides concentration is observed on March 25, as can be seen in the plot below.

Daii-ichi (unit 1/4, 330m E from discharge point)	2011-03-21 14:30 JST	2011-03-22 06:30 JST	2011-03-23 08:50 JST	2011-03-24 10:25 JST	2011-03-25 08:30 JST
	Bq/cm ³	Bq/cm ³	Bq/cm ³	Bq/cm ³	Bq/cm ³
Co-58	5.995E-02	ND	5.00E-02	ND	ND
I-131	5.066E+00	1.190E+00	5.90E+00	4.20E+00	5.00E+01
I-132	2.136E+00	1.362E+00	5.40E+00	1.70E+00	3.30E+00
Cs-134	1.486E+00	1.504E-01	2.50E-01	4.50E-01	7.00E+00
Cs-136	2.132E-01	2.350E-02	2.50E-02	6.10E-02	8.00E-01
Cs-137	1.484E+00	1.535E-01	2.50E-01	4.40E-01	7.20E+00
Zr-95	ND	ND	2.30E-01	ND	ND
Ru-105	ND	6.92E-02	8.37E-01	ND	ND
Ru-106	ND	1.32E-01	3.70E-01	ND	ND
Te-129	ND	ND	4.00E+00	8.00E-02	ND
Te-132	ND	ND	4.00E-01	ND	2.20E-01
La-140	ND	ND	1.30E-02	2.10E-02	ND
Tc-99m	ND	2.59E-02	ND	ND	ND
Co-60	ND	ND	ND	ND	5.90E-02
Mo-99	ND	ND	ND	ND	2.10E-01
Ba-140	ND	ND	ND	ND	1.20E+00

ND=Not Detected





Deposition Data by Prefecture

There are 47 prefectures in Japan. No official data on deposition are available for the prefecture of Fukushima and data collection is not possible in the prefecture of Mayagi as a result of earthquake damage. In 28 of the remaining 45 prefectures, no deposition of radionuclides has been detected in the period 18 to 25 March. In 7 of the remaining 17 prefectures, the estimated daily deposition is less than 500 Bq/m² for I-131 and less than 100 Bq/m² for Cs-137. These prefectures are Akita, Shizuoka, Aomori, Niigata, Nagano, Shimane, Okayama. In the last 5 of these, only trace amounts of I-131 have been detected. The daily deposition data for the remaining 10 prefectures are summarized in the table below.

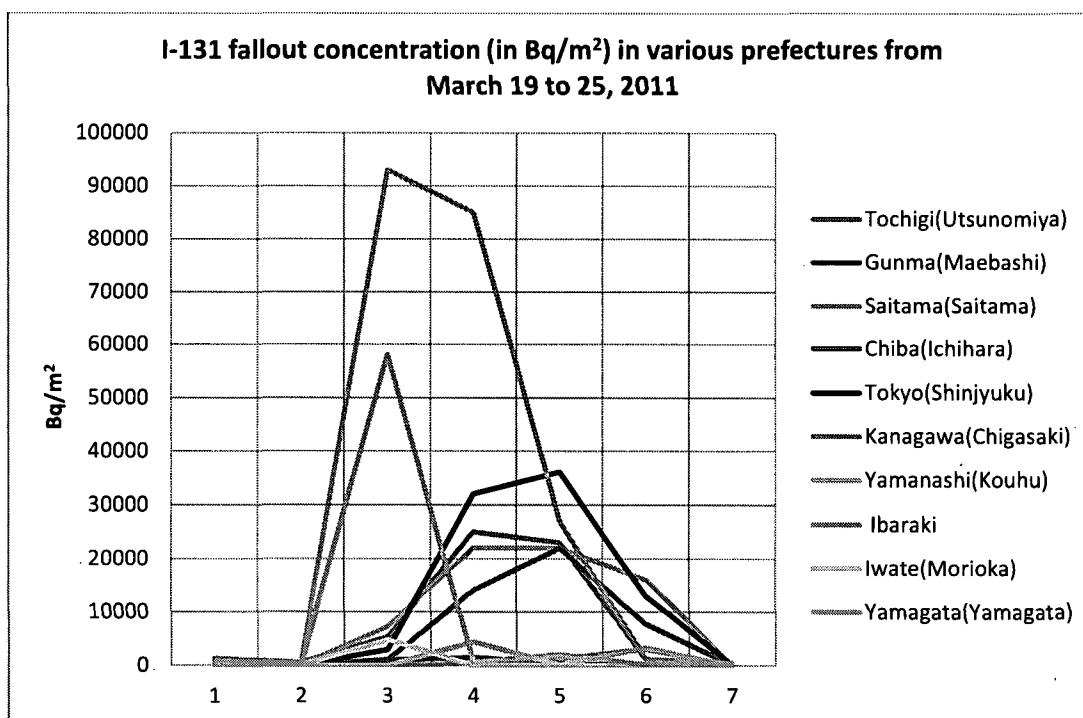
The highest rates of deposition occurred during the period March 20 to 24, while the most recent set of data clearly indicates much lower levels. The prefectures with the highest levels of deposition are Chiba, Ibaraki, Saitama, Tochigi, Tokyo and Yamagata with at least one daily measurement above 20,000 Bq/m² for I-131. The highest values for Cs-137 deposition are observed in Ibaraki.

Deposition in Tokyo took place primarily during March 21 to 24. This coincided with rainfall on March 21 and 22 (combined rainfall over both days was 33.5 mm) and is consistent with the meteorological information which shows the released radioactivity over Tokyo during this time.

Deposition (Bq/m ²) measured during a 24 hour period, from 9:00 to 9:00 (JST)									
	Mar 18-19		Mar 19-20		Mar 20-21		Mar 21-22		
Location	I-131	Cs-137	I-131	Cs-137	I-131	Cs-137	I-131	Cs-137	
Tochigi(Utsunomiya)	1300	62	540	45	5300	250	25000	440	
Gunma(Maebashi)	230	84	190	63	990	87	1500	72	
Saitama(Saitama)	64	ND	66	ND	7200	790	22000	1600	
Chiba(Ichihara)	21	ND	44	3.8	1100	110	14000	2800	
Tokyo(Shinjyuku)	51	ND	40	ND	2900	560	32000	5300	
Kanagawa(Chigasaki)	40	ND	38	ND	No data	No data	340	110	
Yamanashi(Kouhu)	175	ND	ND	ND	ND	ND	4400	400	
Yamagata (Yamagata)	ND	ND	22	20	58000	4300	590	140	
Ibaraki (Hitachinaka)	880	86	490	48	93000	13000	85000	12000	
Iwate (Morioka)	ND	ND	ND	0.24	4800	690	ND	ND	

Deposition (Bq/m ²) measured during a 24 hour period, from 9:00 to 9:00 (JST)							
	Mar 22-23		Mar 23-24		Mar 24-25		
Location	I-131	Cs-137	I-131	Cs-137	I-131	Cs-137	
Tochigi(Utsunomiya)	23000	99	1200	95	No data	No data	
Gunma(Maebashi)	310	ND	42	ND	27	ND	
Saitama(Saitama)	22000	320	16000	180	160	17	
Chiba(Ichihara)	22000	360	7700	210	130	23	
Tokyo(Shinjyuku)	36000	340	13000	160	173	37	
Kanagawa(Chigasaki)	1300	64	3100	42	No data	No data	
Yamanashi(Kouhu)	110	26	3300	180	9.2	ND	
Yamagata (Yamagata)	2100	1900	170	150	150	150	
Ibaraki (Hitachinaka)	27000	420	1200	63	480	99	
Iwate (Morioka)	23	13	ND	5.6	2.8	0.34	

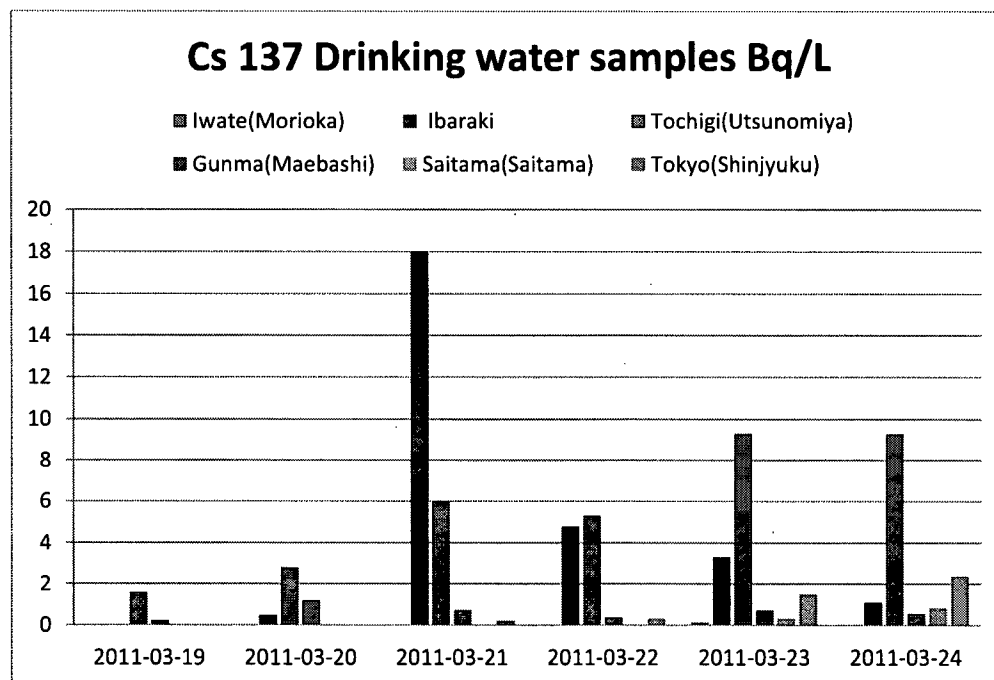
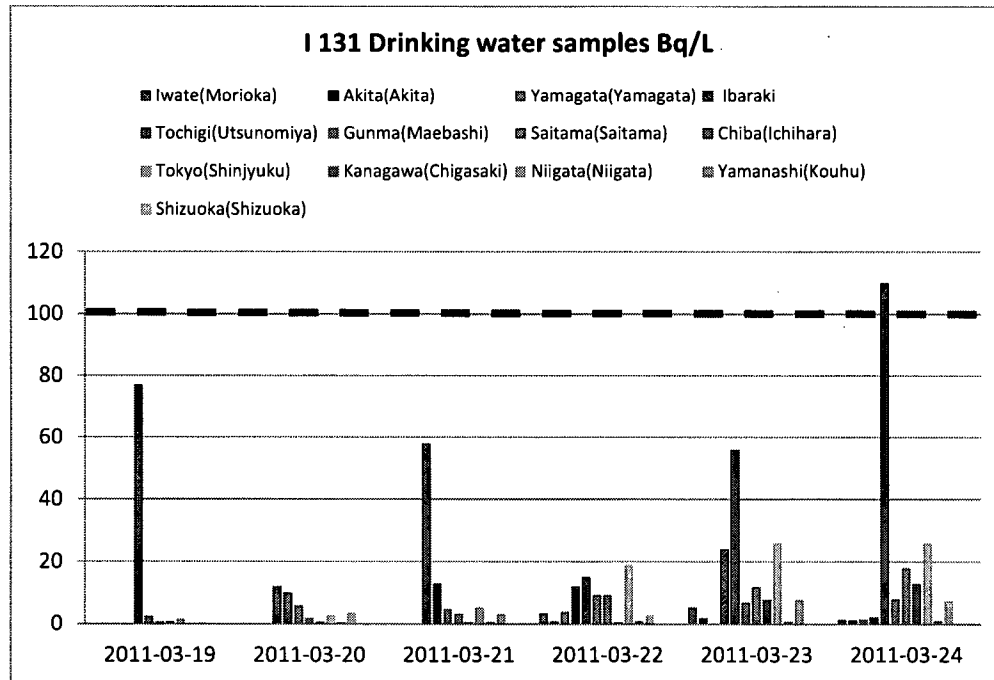
ND = not detected.



Most of the prefectures apart from Fukushima and Miyagi report daily deposition data at detectable levels. On March 25, data were not reported for Ooita, Fukuoka, Gifu, Kanagawa, Fukushima and Miyagi prefectures. 9 prefectures reported deposition in the range of 2.8 to 480 Bq/m² for I-131 and 0.34 to 150 Bq/m² for Cs-137 while the rest of the prefectures reported non detectable levels for either one or both radionuclides.

Radioactivity in drinking water by Prefecture

The results for the analysis of drinking water continue to be received from the 47 prefectures. As of March 24, 13 prefectures had reported positive results for I-131 and six reporting positive results for Cs-137. All but one of the results received from the 47 prefectures remain below the levels recommended by the Japanese authorities. The drinking water concentration for Tochigi prefecture on March 24 slightly exceeded the 100 Bq/L limit for infants (measured value was 110 Bq/L).



Environmental Monitoring in Fukushima Prefecture

Environmental monitoring of soil, surface water, vegetation and airborne particulate is being carried out 35 sampling locations within Fukushima prefecture. Soil is being sampled at 15 locations, surface water at 2 locations, airborne particulate (dust) at 12 locations and leafy vegetation at 6 locations. All of the samples are being monitored for I-131 and Cs-137, as well as ambient radiation (microsievert per hour) at the sampling location.

Environmental monitoring results are highly variable and can be summarized as follows:

- Dust. Most of the dust samples report I-131 less than 10 Bq/m³, however, some individual measurements were several hundred Bq/m³. Cs-137 concentrations are at least an order of magnitude lower. The ratio of I-131 to Cs-137 in dust samples is highly variable.
- Leafy vegetation. Leafy vegetation shows the highest readings for I-131 and Cs-137. I-131 concentrations range from 1.0E+04 to 1.0E+06 Bq/kg, with the largest values being measured to the northwest of Daiichi NPP. Cs-137 concentrations lie in the same range as I-131 and have the same spatial distribution.
- Surface Water. The three surface water concentrations measured to date show much less variability. I-131 concentrations are about 2000 Bq/kg and Cs-137 concentrations range from 250 to 1000 Bq/kg.
- Soil. Iodine-131 concentrations range from 5.0E+03 to 1.0E+06 Bq/kg, with the largest values being measured to the northwest of Daiichi NPP. Cs-137 concentrations are typically an order of magnitude lower as I-131 and have the same spatial distribution.
- Leafy vegetables from Chiba pref. (200km SW) showed I-131 concentration 2100-2800 Bq/kg and from Tochigi pref. (139km SW) in the range 2080-5230 Bq/kg. (sampling between 22/24-03-11). Limit : 2000 Bq/kg.

The "Enhanced Local Monitoring Program" for environmental monitoring in the area beyond the 20 km radius of Fukushima Daiichi calls for:

- 1) Prioritized sampling in areas with higher gamma dose rates,
- 2) Analysis for Sr-90 in samples that have higher I-131 and Cs-137 concentrations,
- 3) Aerial surveys for surface contamination.

As per item 1) above, new sampling locations are being added with each new set of data received. Results of analysis for Sr-90 have not yet been reported, however, they are anticipated soon as per the enhanced local monitoring program. The first aerial survey results were received by the IEC on 26 March at 02:35 UTC. Gamma dose rates in microsievert per hour are reported. As yet, no sampling grid has been established for aerial surveys.

Aerial surveys (using aircraft) carried out beyond 30km zone showed no enhancement in gamma dose rates at altitudes 1000 to 2000 m above sea level, compared to the values recorded during an exercise in 2008.

Gamma dose rates measured using survey meters in Miyagi prefecture on March 25 showed a maximum 0.42 µSv/h in Ogawara town.

On-Site worker exposures

According to METI-NISA press release No.49, a total of 17 TEPCO workers and contractors have received doses in excess of 100mSv. The dose level of 17 TEPCO workers is within 100 mSv to 180 mSv.

On March 24, during cabling work in the Unit 3 turbine building, three workers were overexposed at levels recorded by their electronic dosimeters of 180.07 mSv, 179.37 mSv, and 173.0 mSv.

Two of the workers were found to have been contaminated as a result of walking in water that had accumulated on the floor. Both were taken to Fukushima University Hospital for examination. They were subsequently transferred to National Institute of Radiological Sciences for further examination. They will remain under observation for 4 days.

For two out of the three workers, significant skin contamination of their legs was confirmed. As a result of examination at National Institute of Radiological Sciences in the Chiba Prefecture, the level of local exposure of their legs was estimated to be between 2 to 6 Sv. The level of exposure of both legs and internal did not require medical treatment, but they decided to monitor the progress of all three workers in the hospital.

TEPCO measured the dose rate of about 400 mSv/h above the surface of the water in Unit 3 turbine building where the workers were contaminated. A sample of the contaminated water was analyzed and it was determined that the total activity concentration was 3.9×10^6 Bq/cm³. On March 25, TEPCO sampled some stagnant water found in the Unit 1 turbine building. The radionuclides detected in the water analysis are presented below:

Unit 3 turbine building water 24-March-2011		Unit 1 turbine building water 25-March-2011	
Nuclides	Sample(Bq/cm ³)	Nuclides	Sample(Bq/cm ³)
Cobalt-60	7.0×10^2	Chlorine-38	1.6×10^6
Technetium-99m	2.5×10^3	Arsenic-74	3.9×10^2
Iodine-131	1.2×10^6	Yttrium-91	5.2×10^4
Cesium- 134	1.8×10^5	Iodine-131	2.1×10^5
Cesium-136	2.3×10^4	Cesium-134	1.6×10^5
Cesium-137	1.8×10^5	Cesium-136	1.7×10^4
Barium-140	5.2×10^4	Cesium-137	1.8×10^6
Lanthanum-140	9.4×10^3	Lanthanum-140	3.4×10^2
Cerium-144	2.2×10^6		
Total	3.9×10^6	Total	3.8×10^6

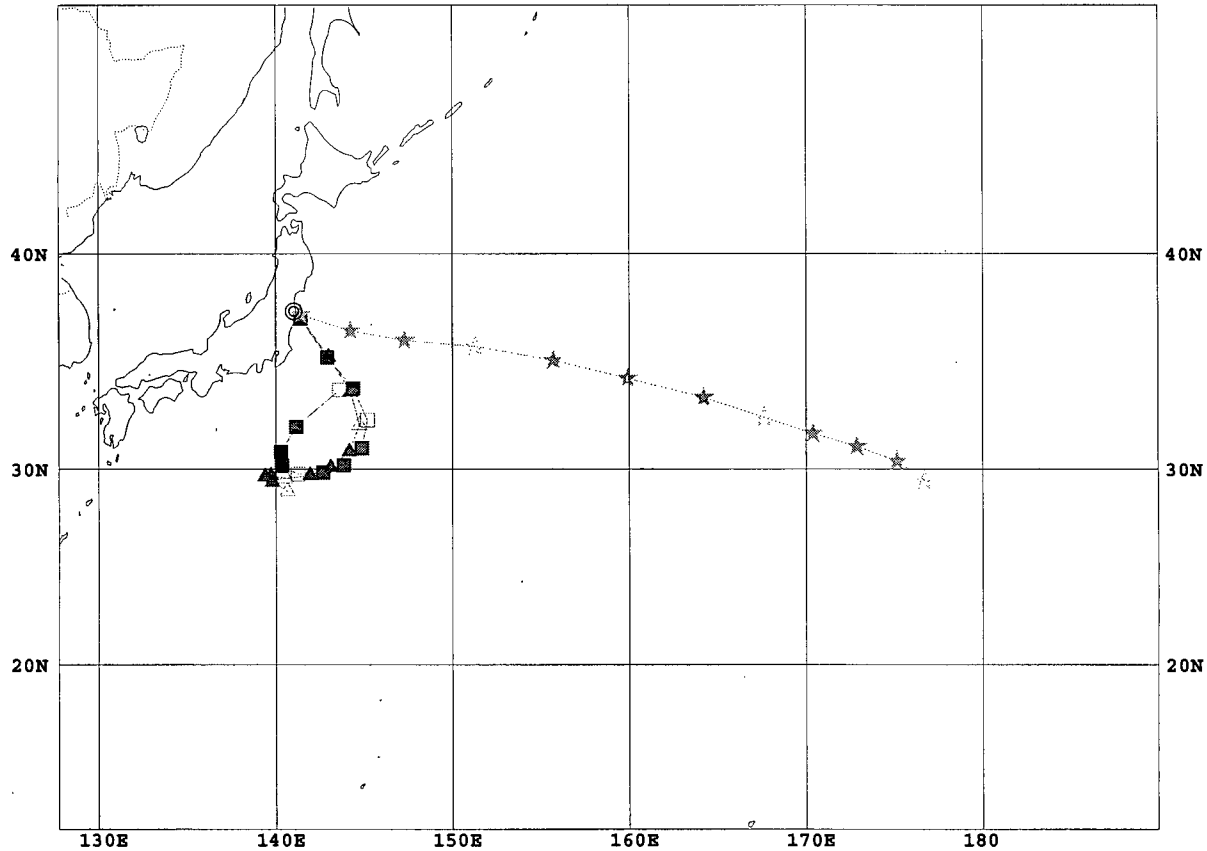
The IAEA has forwarded enquiries to NISA regarding the presence of and analysis results provided for the water found in the Unit 1 and Unit 3 turbine buildings.

Pat Kenny
Emergency Response Manager
26-March-2011 21:00 UTC

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

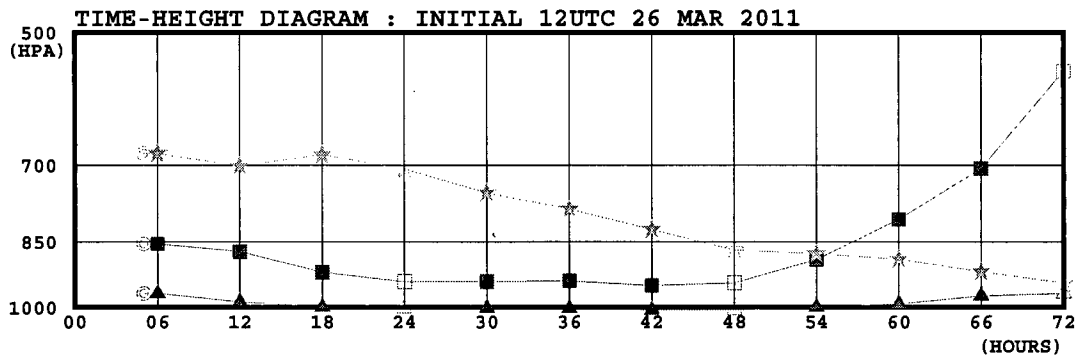
3-D TRAJECTORY

FROM 17UTC 26 MAR 2011 TO 12UTC 29 MAR 2011



(ISSUED 1755UTC 26 MAR 2011)

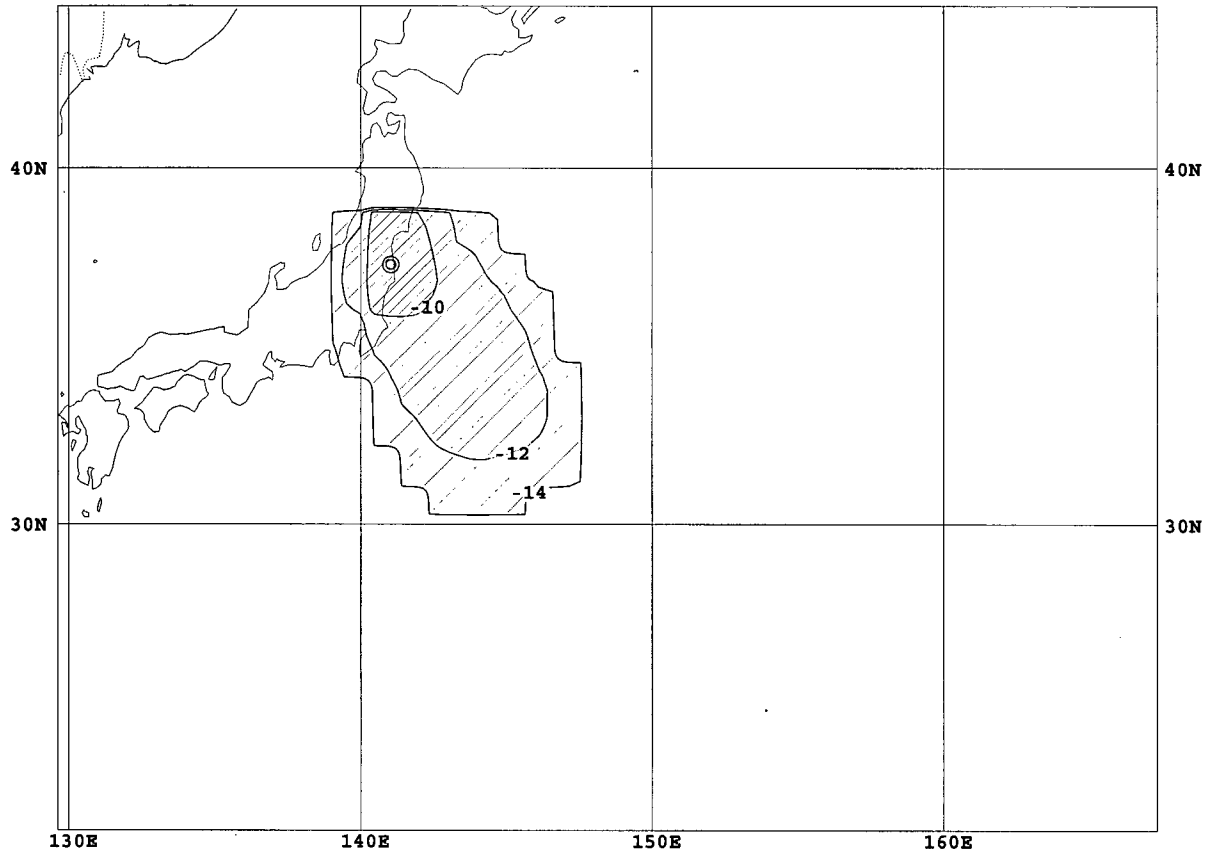
- ▲ INITIAL HEIGHT = 500M ABOVE THE SURFACE
- INITIAL HEIGHT = 1500M ABOVE THE SURFACE
- ★ INITIAL HEIGHT = 3000M ABOVE THE SURFACE
- MARKED WITH TIME INTERVAL OF 6 HOURS
- ◎ SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN



☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TIME INTEGRATED SURFACE - 500M LAYER CONCENTRATION

INTEGRATED FROM 17UTC 26 MAR 2011
TO 12UTC 27 MAR 2011



(ISSUED 1755UTC 26 MAR 2011)

ASSUMED POLLUTANT RELEASED : I -131
START OF THE EMISSION : 1700UTC 26 MAR 2011
END OF THE EMISSION : 1700UTC 29 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ.S/M3)
MAXIMUM : 6.36E-9 (BQ.S/M3)
CONTOURS: 1E-10 , 1E-12 , 1E-14

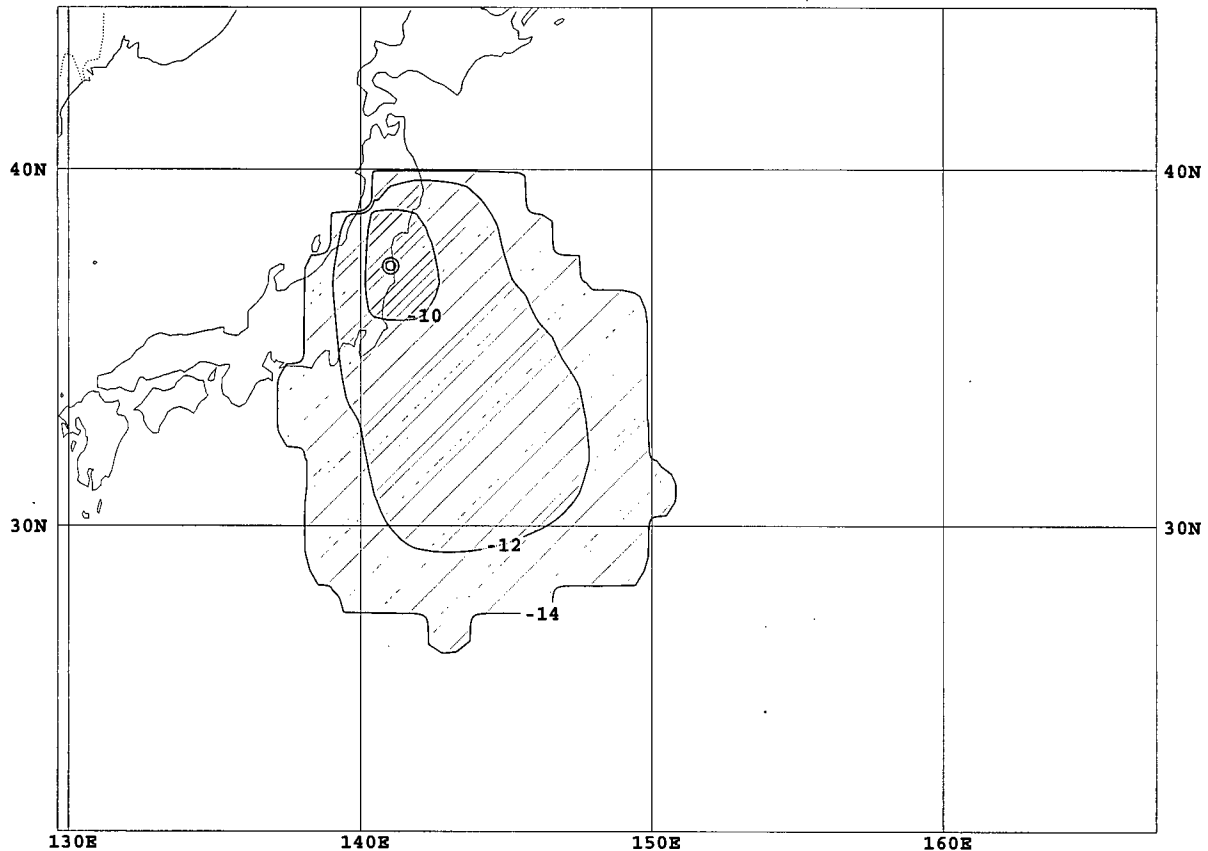
CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 2 / 5

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TIME INTEGRATED SURFACE - 500M LAYER CONCENTRATION

INTEGRATED FROM 12UTC 27 MAR 2011
TO 12UTC 28 MAR 2011



(ISSUED 1755UTC 26 MAR 2011)

ASSUMED POLLUTANT RELEASED : I -131
START OF THE EMISSION : 1700UTC 26 MAR 2011
END OF THE EMISSION : 1700UTC 29 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ.S/M3)
MAXIMUM : 4.59E-9 (BQ.S/M3)
CONTOURS: 1E-10 , 1E-12 , 1E-14

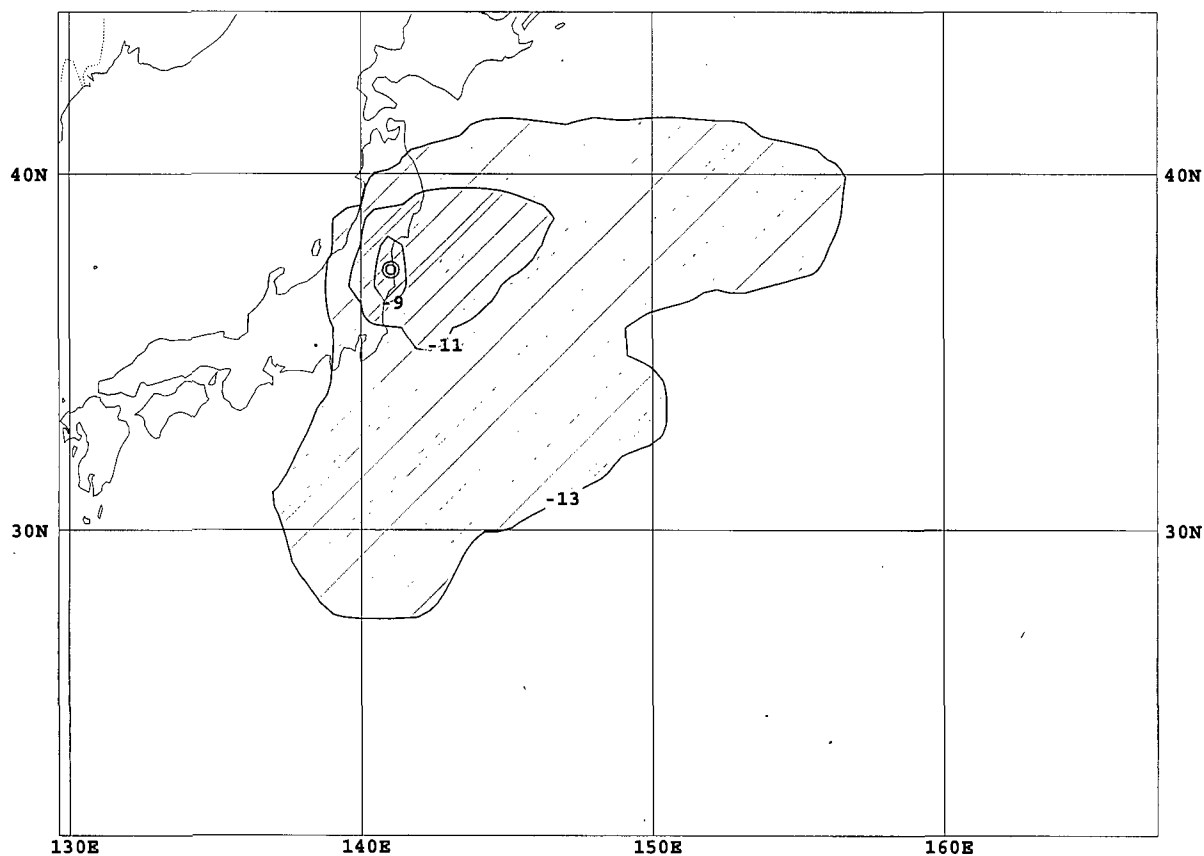
CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 3 / 5

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TIME INTEGRATED SURFACE - 500M LAYER CONCENTRATION

INTEGRATED FROM 12UTC 28 MAR 2011
TO 12UTC 29 MAR 2011



(ISSUED 1755UTC 26 MAR 2011)

ASSUMED POLLUTANT RELEASED : I -131
START OF THE EMISSION : 1700UTC 26 MAR 2011
END OF THE EMISSION : 1700UTC 29 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ.S/M3)
MAXIMUM : 2.02E-9 (BQ.S/M3)
CONTOURS: 1E-9, 1E-11, 1E-13

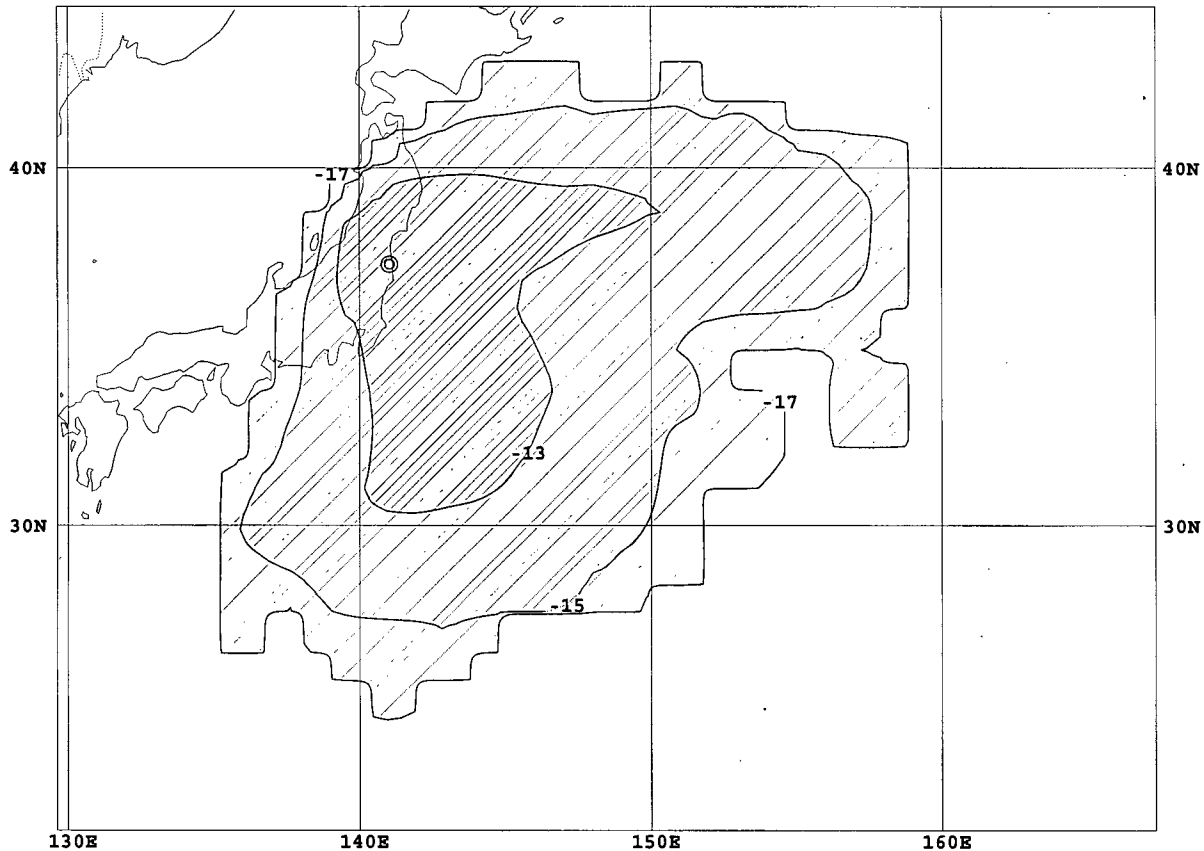
CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 4 / 5

☐ DELEGATED AUTHORITY REQUESTED
☐ IAEA NOTIFIED EMERGENCY

TOTAL (WET AND DRY) DEPOSITION

INTEGRATED FROM 17UTC 26 MAR 2011
TO 12UTC 29 MAR 2011



(ISSUED 1755UTC 26 MAR 2011)

ASSUMED POLLUTANT RELEASED : I -131
START OF THE EMISSION : 1700UTC 26 MAR 2011
END OF THE EMISSION : 1700UTC 29 MAR 2011
© SOURCE LOCATION : LATITUDE 37.42N
LONGITUDE 141.03E
NAME FUKUSHIMA DAIICHI, JAPAN
ASSUMED TOTAL EMISSION : 1 BECQUEREL
UNIFORM RELEASE FROM 20- 500M ABOVE THE GROUND
UNIT : (BQ/M2)
MAXIMUM : 9.12E-12 (BQ/M2)
CONTOURS: 1E-13, 1E-15, 1E-17

CONTOUR VALUES MAY CHANGE FROM CHART TO CHART

JAPAN METEOROLOGICAL AGENCY
GLOBAL TRACER TRANSPORT MODEL
CHART 5 / 5

March 26th, 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 Unit2 innorthwest direction)

[illegible]

***1: SMOB : South Side of Main Office Building**

*2: MG: Main Gate

*3: WG:West Gate

[illegible][illegible]

March 26th, 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 Unit2 innorthwest direction)

Monitoring points		④																								
Reading time		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	
MO	Reading (μ Sv/h)	184.4	184.0	183.8	183.2	182.8	182.7	182.5	182.4	182.3	182.1	181.8	180.8	179.9	178.1	176.6	175.5	174.4	173.0	172.4	171.0	170.7	169.8	169.2	169.5	
	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	
Car	SMOB(mSv/h)*	1,460	—	—	1,460	—	—	1,450	—	—	1,440	—	—	1,440	—	—	1,420	—	—	1,390	—	—	1,370	—	—	
	MG(μ Sv/h)*2	241	—	—	238	—	—	235	—	—	235	—	—	233	—	—	230	—	—	224	—	—	221	—	—	
	WG(μ Sv/h)*3	117	—	—	117	—	—	114	—	—	115	—	—	114	—	—	110	—	—	109	—	—	108	—	—	
wind direction		NW	NW	W	NW	NNW	NNW	NW	NW	W	NW	NW	NW	N	NNW	NNW	N	NNW	N	N	NNW	NNW	NW	NW	NW	
wind speed (m/s)		2.3	1.8	2.5	2.2	2.6	3.2	3.2	2.7	2.4	2.7	1.9	3.0	5.3	4.0	2.9	3.5	3.2	5.0	5.9	3.7	3.0	3.0	2.7	2.9	

*1: SMOB : South Side of Main Office Building

*2: MG: Main Gate

*3: WG: West Gate

Monitoring points		④																							
Reading time		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
MC	Reading (μ Sv/h)	169.2	169.1	168.1	167.8	167.1	167.1	166.9	167.1	167.4	167.6	167.8	168.0	169.0	168.0	168.3	169.2	169.6	169.7	169.5	169.0	169.8	170.0	169.9	170.1
	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
Car	SMOB(mSv/h)*	1,370	—	—	1,360	—	—	1,360	—	—	1,370	—	—	1,370	—	—	1,380	—	—	1,370	—	—	1,380	—	—
	MG(μ Sv/h)*2	219	—	—	217	—	—	218	—	—	217	—	—	221	—	—	221	—	—	219	—	—	219	—	—
	WG(μ Sv/h)*3	107	—	—	105	—	—	105	—	—	105	—	—	108	—	—	105	—	—	106	—	—	105	—	—
wind direction		NW	NW	NW	NW	NW	N	NW	N	NNW	NW	NW	NW	NW	WNW	NW	NW	NNW	NW	WNW	WNW	NNW	NW	N	NNW
wind speed (m/s)		2.6	2.8	2.6	2.3	2.7	3.2	6.1	3.4	3.0	2.7	2.7	2.9	2.5	2.7	2.7	2.5	2.2	2.4	2.3	2.6	2.8	2.3	2.9	2.7

Monitoring points		④																				③				
Reading time		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	
MC	Reading (μ Sv/h)	170.3	170.3	170.6	170.7	170.7	170.8	170.8	170.7	170.5	170.6	170.6	170.8	170.5	170.8	170.6	170.5	170.8	170.8	170.7	change monitor ing point	146.7	146.7	146.6	146.9	
	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
Car	SMOB(mSv/h)*	1,380	—	—	1,370	—	—	1,370	—	—	1,360	—	—	1,350	—	—	1,350	—	—	1,340		—	—	1,350	—	—
	MG(μ Sv/h)*2	220	—	—	221	—	—	221	—	—	222	—	—	221	—	—	222	—	—	221		—	—	220	—	—
	WG(μ Sv/h)*3	107	—	—	106	—	—	105	—	—	104	—	—	103	—	—	N.D	—	—	N.D		—	—	N.D	—	—
wind direction		N	NNW	NNW	NNE	NNW	NNW	NNE	NW	NNW	N	N	NNW	NW	NW	NNW	NNW	WNW	NW			NW	NNW	W	W	
wind speed (m/s)		2.8	2.7	3.5	3.4	2.9	3.0	3.0	3.1	2.8	2.4	2.6	2.5	2.6	2.5	3.9	4.4	3.5	3.8	5.1			2.9	2.6	2.9	3.5

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-8) (approx. 1.0km from Unit 2 in westnorthwest direction)
 ⑤ Front of Earthquake Isolation Building (approx. 0.5km from Unit2 innorthwest direction)

Monitoring points		④																							
Reading time		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
MC	Reading (μ Sv/h)	235.8	232.8	231.6	229.5	226.7	224.5	222.3	221.2	218.8	216.4	216.2	213.7	212.6	210.8	209.0	208.0	207.2	206.6	205.8	204.8	203.6	202.5	201.7	199.5
	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
Car	SMOB(mSv/h)*	1.73	—	—	1.72	—	—	1.92	—	—	2.46	—	—	2.06	—	—	1.95	—	—	1.92	—	—	1.82	—	—
	MG(μ Sv/h)*2	310	—	—	298	—	—	289	—	—	280	—	—	273	—	—	267	—	—	266	—	—	261	—	—
	WG(μ Sv/h)*3	202	—	—	191	—	—	173	—	—	162	—	—	158	—	—	149	—	—	145	—	—	142	—	—
wind direction		SSE	SE	SE	S	ESE	SE	SE	SE	SE	SE	SE	SE	E	S	SSE	SE	E	SE	SE	E	S	SE	SE	SE
wind speed (m/s)		3.7	3.5	3.3	3.0	2.9	3.3	2.5	2.5	3.0	2.7	2.8	2.7	2.9	2.9	2.7	2.6	2.1	2.5	2.2	2.2	2.2	2.1	2.6	1.8

*1: SMOB : South Side of Main Office Building

*2: MG: Main Gate

*3: WG: West Gate

Monitoring points		④																							
Reading time		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
MC	Reading (μ Sv/h)	197.4	196.9	197.6	196.1	197.2	196.8	196.0	195.9	194.9	195.4	194.5	195.6	194.7	194.4	193.6	199.5	194.4	193.6	199.5	261.7	221.9	225.0	215.4	243.0
	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
Car	SMOB(mSv/h)*	1.79	—	—	1.81	—	—	1.71	—	—	1.68	—	—	1.66	—	—	1.62	—	—	1.60	—	—	1.590	—	—
	MG(μ Sv/h)*2	257	—	—	256	—	—	252	—	—	249	—	—	247	—	—	317	—	—	324	—	—	272	—	—
	WG(μ Sv/h)*3	134	—	—	132	—	—	159	—	—	170	—	—	183	—	—	153	—	—	145	—	—	142	—	—
wind direction		S	ESE	SE	SE	SE	S	SE	SE	SE	E	E	E	E	ESE	ESE	SE	ESE	ESE	SE	NNE	E	ESE	SE	E
wind speed (m/s)		2.0	2.1	2.1	1.6	1.5	1.9	2.6	1.8	1.6	1.8	2.0	2.2	1.7	1.6	1.7	1.3	1.6	1.7	1.3	1.1	1.1	1.0	1.1	1.0

Monitoring points		④																							
Reading time		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
MC	Reading (μ Sv/h)	213.9	206.3	205.2	228.4	205.9	239.6	204.9	199.5	195.4	194.4	193.0	192.3	191.4	190.4	190.1	189.6	189.2	187.6	187.0	186.4	186.0	185.3	184.8	184.7
	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
Car	SMOB(mSv/h)*	1.570	—	—	1.550	—	—	1.510	—	—	1.500	—	—	1.490	—	—	1.480	—	—	1.480	—	—	1.470	—	—
	MG(μ Sv/h)*2	309	—	—	289	—	—	282	—	—	254	—	—	249	—	—	244	—	—	243	—	—	238	—	—
	WG(μ Sv/h)*3	139	—	—	144	—	—	134	—	—	127	—	—	125	—	—	123	—	—	119	—	—	116	—	—
wind direction		E	SE	ESE	SE	NE	SE	N	N	N	NNE	N	NNW	NNW	NNW	NNW	NNW	N	NNW	NW	NW	NW	W	NW	NW
wind speed (m/s)		1.5	2.8	2.2	1.5	0.7	0.7	0.9	1.0	1.2	1.9	1.3	1.8	1.5	1.3	1.5	1.5	1.6	2.3	1.9	1.7	1.8	1.6	2.2	2.6

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 Unit2 innorthwest dircetion)

Monitoring points		④																							
Reading time		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
MC	Reading(μ Sv/h)	199.5	199.3	199.0	199.0	198.9	198.8	198.8	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
Car	SMOB(mSv/h)*	1.72	—	—	1.71	—	—	1.68	—	—	1.67	—	—	1.66	—	—	1.66	—	—	1.64	—	—	1.63	—	—
	MG(μ Sv/h)*2	252	—	—	253	—	—	252	—	—	252	—	—	252	—	—	252	—	—	250	—	—	251	—	—
	WG(μ Sv/h)*3	119	—	—	118	—	—	118	—	—	119	—	—	120	—	—	120	—	—	118	—	—	115	—	—
wind direction		NW	W	W	W	NW	WNW	W	WSW	W	SW	W	SE	SSW	NNW	W	WSW	W	W	W	W	NW	NW	N	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

*1: SMOB : South Side of Main Office Building

*2: MG: Main Gate

*3: WG: West Gate

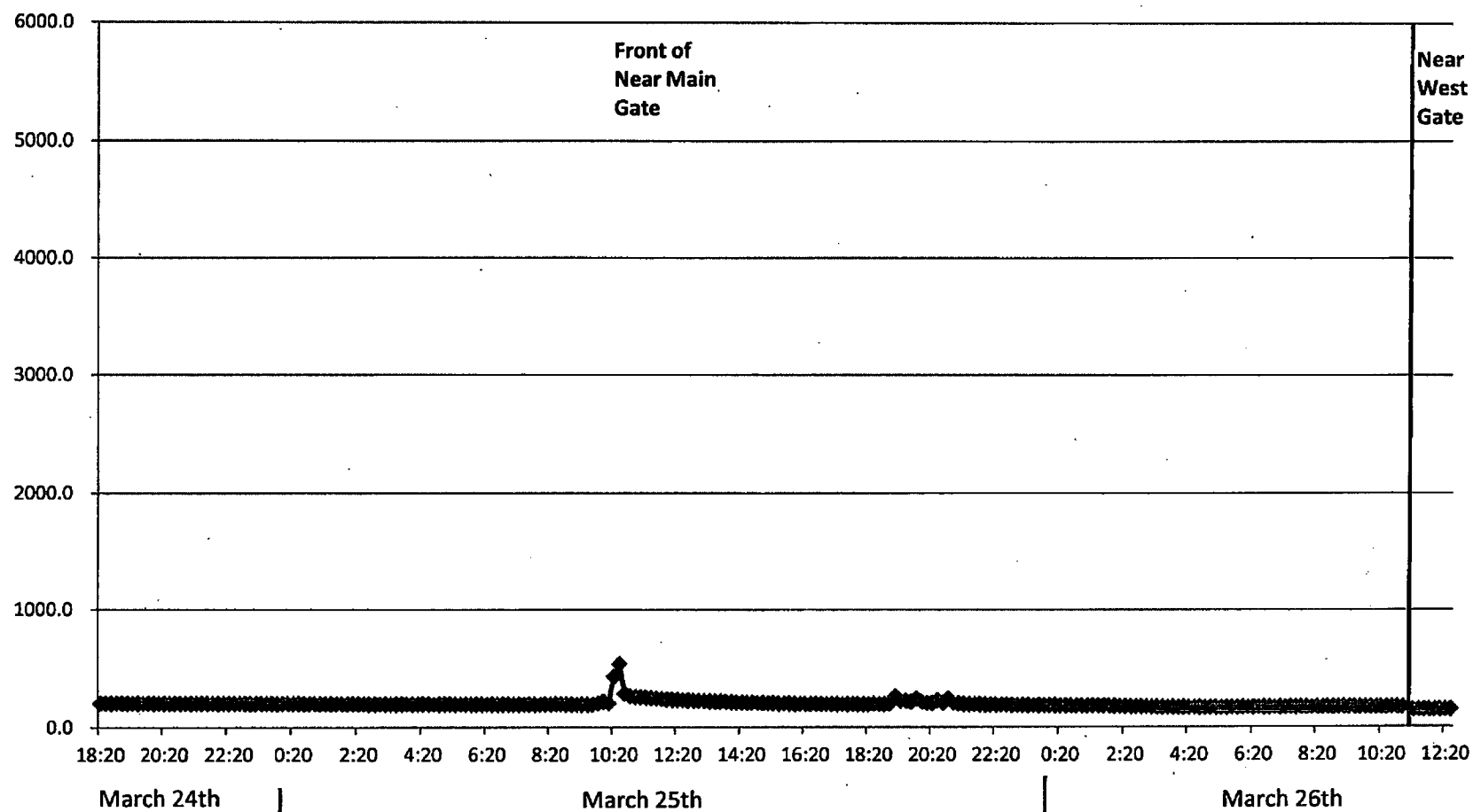
Monitoring points		④																							
Reading time		4:00	4:10	4:20	4:30	4:40	4:50	5:00	5:10	5:20	5:30	5:40	5:50	6:00	6:10	6:20	6:30	6:40	6:50	7:00	7:10	7:20	7:30	7:40	7:50
MC	Reading(μ Sv/h)	195.1	195.0	195.0	195.0	194.5	194.5	194.4	194.4	194.3	194.2	194.1	193.8	193.8	193.8	193.0	192.9	193.0	192.5	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
Car	SMOB(mSv/h)*	1.82	—	—	1.61	—	—	1.61	—	—	1.60	—	—	1.60	—	—	1.59	—	—	1.58	—	—	1.58	—	—
	MG(μ Sv/h)*2	249	—	—	252	—	—	248	—	—	249	—	—	248	—	—	248	—	—	249	—	—	250	—	—
	WG(μ Sv/h)*3	119	—	—	117	—	—	116	—	—	119	—	—	118	—	—	117	—	—	116	—	—	117	—	—
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																							
Reading time		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
MC	Reading(μ Sv/h)	193.8	193.9	193.3	196.3	196.3	192.8	192.6	192.3	192.5	193.7	191.7	204.2	216.2	203.2	430.8	540.0	286.5	284.7	259.0	255.2	250.9	248.6	244.3	240.0
	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
Car	SMOB(mSv/h)*	1.57	—	—	1.56	—	—	1.53	—	—	1.52	—	—	1.51	—	—	1.51	—	—	1.59	—	—	1.57	—	—
	MG(μ Sv/h)*2	249	—	—	250	—	—	251	—	—	247	—	—	287	—	—	528	—	—	334	—	—	320	—	—
	WG(μ Sv/h)*3	115	—	—	116	—	—	115	—	—	115	—	—	115	—	—	126	—	—	263	—	—	235	—	—
wind direction		NNW	N	N	N	NE	NNE	N	N	NE	N	E	NE	E	ENE	E	E	ESE	ESE	ESE	SE	SE	ESE	SE	E
wind speed (m/s)		1.0	1.3	1.6	1.1	1.1	1.4	1.9	3.1	2.3	2.3	2.2	1.6	1.7	1.7	2.0	1.9	2.1	2.4	2.8	2.9	3.4	2.8	3.2	3.0

Dose rate measured in Fukushima Dai-ichi NPS

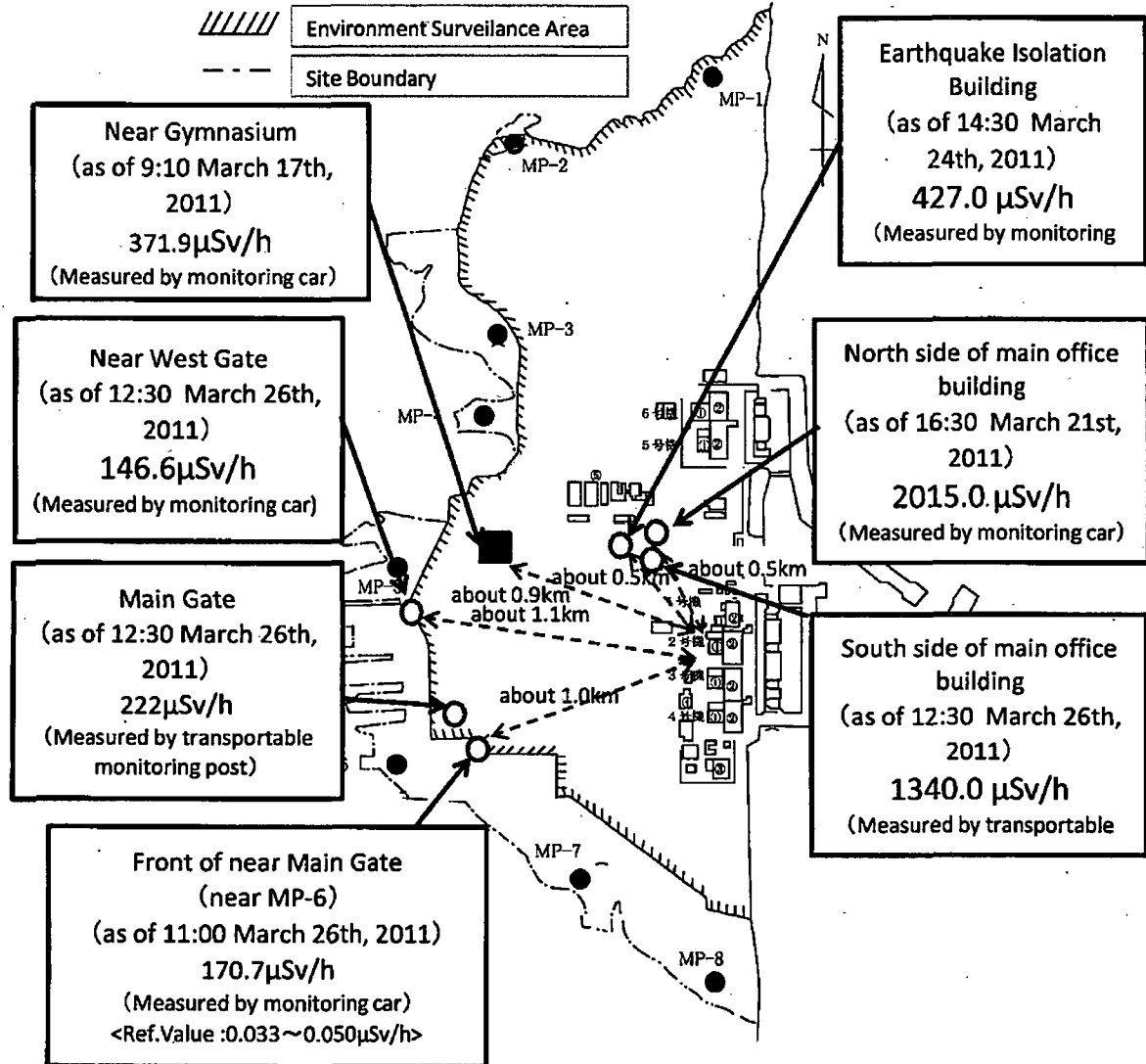
$\mu\text{Sv/h}$

(Measured by monitoring car)



Fukushima Dai-ichi NPS

as of 14:30, March 26th, 2011



[illegible]

Fukushima Dai-ri (TEPCO's Monitoring Post)

March 26th, 2011																								
monitoring point	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 (μ Sv/h)	12.000	11.997	11.893	11.827	11.803	11.773	11.713	11.747	11.680	11.640	11.613	11.600	11.580	11.477	11.473	11.427	11.417	11.330	11.327	11.270	11.213	11.253	11.150	11.160
MP2 (μ Sv/h)	6.910	6.897	6.823	6.780	6.763	6.790	6.757	6.743	6.727	6.693	6.700	6.643	6.617	6.593	6.577	6.517	6.510	6.460	6.447	6.390	6.353	6.347	6.353	6.340
MP3 (μ Sv/h)	11.343	11.310	11.237	11.237	11.183	11.143	11.107	11.140	11.077	11.080	11.017	11.020	10.987	10.853	10.893	10.893	10.877	10.807	10.767	10.723	10.700	10.620	10.630	10.577
MP4 (μ Sv/h)	8.537	8.567	8.523	8.480	8.477	8.460	8.430	8.413	8.393	8.413	8.393	8.343	8.363	8.320	8.313	8.280	8.230	8.200	8.163	8.150	8.120	8.070	8.113	8.063
MP5 (μ Sv/h)	7.947	7.940	7.940	7.893	7.840	7.873	7.847	7.847	7.800	7.833	7.800	7.747	7.747	7.727	7.693	7.700	7.633	7.607	7.547	7.453	7.453	7.453	7.453	7.453
MP6 (μ Sv/h)	9.150	9.100	9.090	9.083	9.040	9.033	9.000	8.977	8.983	8.970	8.957	8.937	8.917	8.857	8.870	8.813	8.827	8.737	8.697	8.643	8.610	8.563	8.550	8.547
MP7 (μ Sv/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	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	NNW	NNW	NW	NNW	NNW	NW	NNW	NNW	NNW	NNW
wind speed (m/s)	8.2	8.0	8.7	8.1	8.9	7.5	8.3	8.3	8.5	8.3	9.0	9.1	8.8	9.2	8.1	8.1	6.5	8.9	8.6	9.0	9.3	9.9	10.3	10.5

March 26th, 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 (μ Sv/h)	11.170	11.113	11.153	11.127	11.050	11.037	11.043	11.053	11.000	11.003	11.027	11.030	11.030	10.953	10.993	10.983	10.977	10.983	10.973	10.920	10.937	10.960	10.933	10.917	
MP2 (μ Sv/h)	6.330	6.303	6.290	6.283	6.263	6.243	6.277	6.250	6.213	6.263	6.283	6.247	6.247	6.243	6.237	6.227	6.237	6.267	6.227	6.227	6.257	6.237	6.237	6.217	
MP3 (μ Sv/h)	10.613	10.580	10.610	10.530	10.487	10.527	10.493	10.503	10.480	10.473	10.470	10.470	10.433	10.440	10.460	10.427	10.410	10.430	10.443	10.437	10.413	10.433	10.447	10.420	
MP4 (μ Sv/h)	8.060	8.067	8.037	8.037	8.020	8.003	7.983	7.993	8.000	8.000	7.983	7.943	7.963	7.970	8.017	7.957	7.970	7.970	7.977	7.950	7.963	7.977	7.963	7.943	
MP5 (μ Sv/h)	7.347	7.380	7.353	7.353	7.353	7.353	7.347	7.353	7.353	7.353	7.353	7.353	7.353	7.333	7.353	7.327	7.307	7.353	7.353	7.353	7.253	7.353	7.353	7.353	
MP6 (μ Sv/h)	8.547	8.547	8.520	8.497	8.477	8.483	8.447	8.460	8.443	8.453	8.463	8.477	8.433	8.443	8.447	8.437	8.437	8.437	8.497	8.467	8.467	8.453	8.403	8.453	8.433
MP7 (μ Sv/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	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	
wind speed (m/s)	10.8	9.7	9.7	10.2	9.5	10.1	9.2	9.1	9.4	8.8	8.8	10.0	8.6	8.6	9.2	9.4	9.7	8.5	8.3	7.5	7.0	6.2	5.5	6.3	

March 26th, 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(μ Sv/h)	10.933	10.933	10.933	10.877	10.920	10.883	10.893	10.910	10.867	10.860	10.893	10.870	10.973	10.903	10.913	10.887	10.850	10.840	10.833	10.873	10.817	10.837	10.803	10.817
MP2(μ Sv/h)	6.217	6.230	6.213	6.223	6.233	6.220	6.203	6.203	6.183	6.220	6.223	6.217	6.240	6.190	6.183	6.190	6.190	6.177	6.180	6.160	6.173	6.167	6.133	6.163
MP3(μ Sv/h)	10.437	10.360	10.380	10.370	10.367	10.403	10.340	10.393	10.323	10.380	10.363	10.367	10.320	10.280	10.213	10.233	10.170	10.230	10.237	10.243	10.207	10.217	10.220	10.230
MP4(μ Sv/h)	7.957	7.933	7.913	7.927	7.930	7.900	7.957	7.933	7.930	7.933	7.913	7.900	7.887	7.813	7.810	7.840	7.833	7.807	7.820	7.837	7.777	7.850	7.863	7.823
MP5(μ Sv/h)	7.347	7.347	7.253	7.353	7.293	7.273	7.253	7.280	7.353	7.280	7.293	7.253	7.253	7.200	7.207	7.227	7.153	7.180	7.253	7.153	7.253	7.160	7.200	7.153
MP6(μ Sv/h)	8.420	8.433	8.427	8.440	8.460	8.467	8.433	8.433	8.417	8.427	8.413	8.460	8.437	8.353	8.317	8.337	8.320	8.337	8.340	8.333	8.300	8.357	8.370	8.353
MP7(μ Sv/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	N	N	N	NNW	N	N	N	N	N	N	N	NNW	NW	NW	NW	NNW	NNW	NNW	NW	NW	NW
wind speed (m/s)	7.1	7.3	8.9	7.1	7.9	7.9	8.6	8.2	8.6	8.3	8.6	7.0	6.1	5.8	7.4	6.9	7.4	10.9	12.0	12.8	11.3	10.5	11.1	10.2

Fukushima Dai-ri (TEPCO's Monitoring Post)

March 25rd, 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 (μ Sv/h)	13.683	13.553	13.430	13.390	13.297	13.167	13.107	12.997	12.943	12.907	12.777	12.793	12.677	12.590	12.580	12.457	12.483	12.457	12.397	12.360	12.287	12.283	12.260	12.227
MP2 (μ Sv/h)	7.600	7.517	7.510	7.437	7.390	7.383	7.357	7.313	7.303	7.267	7.237	7.220	7.193	7.187	7.147	7.133	7.107	7.080	7.057	7.080	7.013	7.020	7.010	6.973
MP3 (μ Sv/h)	12.233	12.147	12.103	12.033	11.983	11.987	11.920	11.853	11.827	11.803	11.737	11.737	11.673	11.640	11.627	11.597	11.610	11.540	11.527	11.540	11.487	11.450	11.453	11.417
MP4 (μ Sv/h)	9.390	9.310	9.243	9.243	9.223	9.183	9.157	9.117	9.107	9.083	9.040	9.017	9.013	8.973	8.960	8.960	8.930	8.873	8.860	8.847	8.833	8.833	8.820	8.800
MP5 (μ Sv/h)	8.820	8.767	8.727	8.673	8.640	8.627	8.627	8.580	8.533	8.527	8.527	8.447	8.427	8.427	8.373	8.387	8.333	8.333	8.280	8.293	8.287	8.233	8.233	8.240
MP6 (μ Sv/h)	10.013	9.923	9.910	9.870	9.827	9.783	9.770	9.777	9.723	9.693	9.697	9.677	9.677	9.630	9.593	9.577	9.600	9.543	9.510	9.483	9.483	9.450	9.463	9.410
MP7 (μ Sv/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	5.300	N.D	N.D	N.D	N.D	N.D
wind direction	ESE	SE	SE	ESE	SE	SE	SSE	SE	ESE	SE	SE	SE	SSE	SE	SE	SE	SE	SE	SE	SE	ESE	E	E	SE
wind speed (m/s)	4.2	3.1	3.2	2.5	4.8	5.3	3.4	3.3	2.7	2.5	3.7	3.4	2.1	3.7	2.2	2.7	3.2	3.0	2.1	2.2	2.0	1.1	2.5	2.2

March 25rd, 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 (μ Sv/h)	12.200	12.147	12.080	12.033	12.017	12.000	11.980	11.933	11.937	11.907	11.863	11.873	11.840	11.800	11.800	11.763	11.757	11.743	11.693	11.673	11.680	11.653	11.577	11.560
MP2 (μ Sv/h)	7.000	6.970	6.940	6.943	6.920	6.917	6.907	6.870	6.890	6.830	6.837	6.853	6.830	6.820	6.813	6.820	6.776	6.790	6.757	6.787	6.733	6.747	6.693	6.647
MP3 (μ Sv/h)	11.383	11.407	11.370	11.343	11.300	11.293	11.253	11.267	11.240	11.247	11.197	11.217	11.233	11.173	11.170	11.177	11.183	11.163	11.160	11.100	11.077	11.113	11.033	10.927
MP4 (μ Sv/h)	8.753	8.763	8.757	8.727	8.687	8.727	8.693	8.687	8.647	8.673	8.630	8.627	8.680	8.653	8.613	8.590	8.627	8.590	8.600	8.623	8.577	8.573	8.467	8.460
MP5 (μ Sv/h)	8.193	8.233	8.187	8.153	8.140	8.140	8.133	8.133	8.033	8.133	8.127	8.053	8.040	8.040	8.040	8.040	8.040	8.033	7.993	8.040	7.987	7.940	7.840	
MP6 (μ Sv/h)	9.413	9.407	9.413	9.393	9.400	9.340	9.333	9.303	9.313	9.300	9.307	9.307	9.270	9.293	9.273	9.250	9.260	9.220	9.233	9.227	9.210	9.193	9.100	9.087
MP7 (μ Sv/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	SE	SE	SSE	SSE	ESE	E	E	E	ESE	ESE	E	SE	E	SSE	ESE	E	E	W	NE	ENE	E	ENE	ENE	ENE
wind speed (m/s)	2.8	2.6	1.8	3.3	2.5	3.5	4.3	1.7	1.8	2.0	2.9	1.7	0.8	1.1	1.9	1.9	3.2	2.1	0.4	0.8	2.4	2.5	3.3	4.7

March 25rd, 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 (μ Sv/h)	11.530	11.530	11.420	11.363	11.380	11.377	11.337	11.327	11.317	11.300	11.307	11.313	11.277	12.673	13.247	12.557	12.433	12.280	12.597	12.240	12.303	12.123	12.033	11.987
MP2 (μ Sv/h)	6.607	6.557	6.523	6.490	6.517	6.473	6.483	6.470	6.433	6.493	6.467	6.463	6.473	8.323	8.137	7.173	7.180	7.063	7.093	7.023	7.093	7.013	6.897	6.877
MP3 (μ Sv/h)	10.937	10.853	11.840	10.823	10.777	10.773	10.757	10.737	10.810	10.737	10.740	10.750	10.733	12.833	12.213	11.607	11.780	11.680	11.557	11.457	11.480	11.453	11.323	11.383
MP4 (μ Sv/h)	8.427	8.363	8.343	8.280	8.263	8.263	8.223	8.253	8.270	8.283	8.257	8.257	8.267	9.620	9.103	8.657	8.853	8.760	8.737	8.593	8.637	8.623	8.567	8.530
MP5 (μ Sv/h)	7.840	7.740	7.647	7.647	7.647	7.647	7.647	7.647	7.647	7.647	7.647	7.647	7.647	9.100	8.433	8.033	8.193	8.120	8.093	7.987	8.033	8.033	7.940	7.940
MP6 (μ Sv/h)	9.043	8.967	8.877	8.870	8.840	8.803	8.793	8.810	8.823	8.820	8.803	8.820	8.830	9.623	9.757	9.253	9.297	9.187	9.140	9.170	9.190	9.193	9.120	9.103
MP7 (μ Sv/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	E	ENE	NE	NNE	NE	NE	NNE	NNE	N	N	N	N	NNW	N	N	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW
wind speed (m/s)	3.6	5.0	2.9	5.3	3.7	4.2	5.4	6.2	5.3	4.8	5.2	5.2	6.2	6.7	6.1	6.6	7.7	7.2	6.0	6.8	7.5	7.2	6.9	7.0

Fukushima Dai-ri (TEPCO's Monitoring Post)

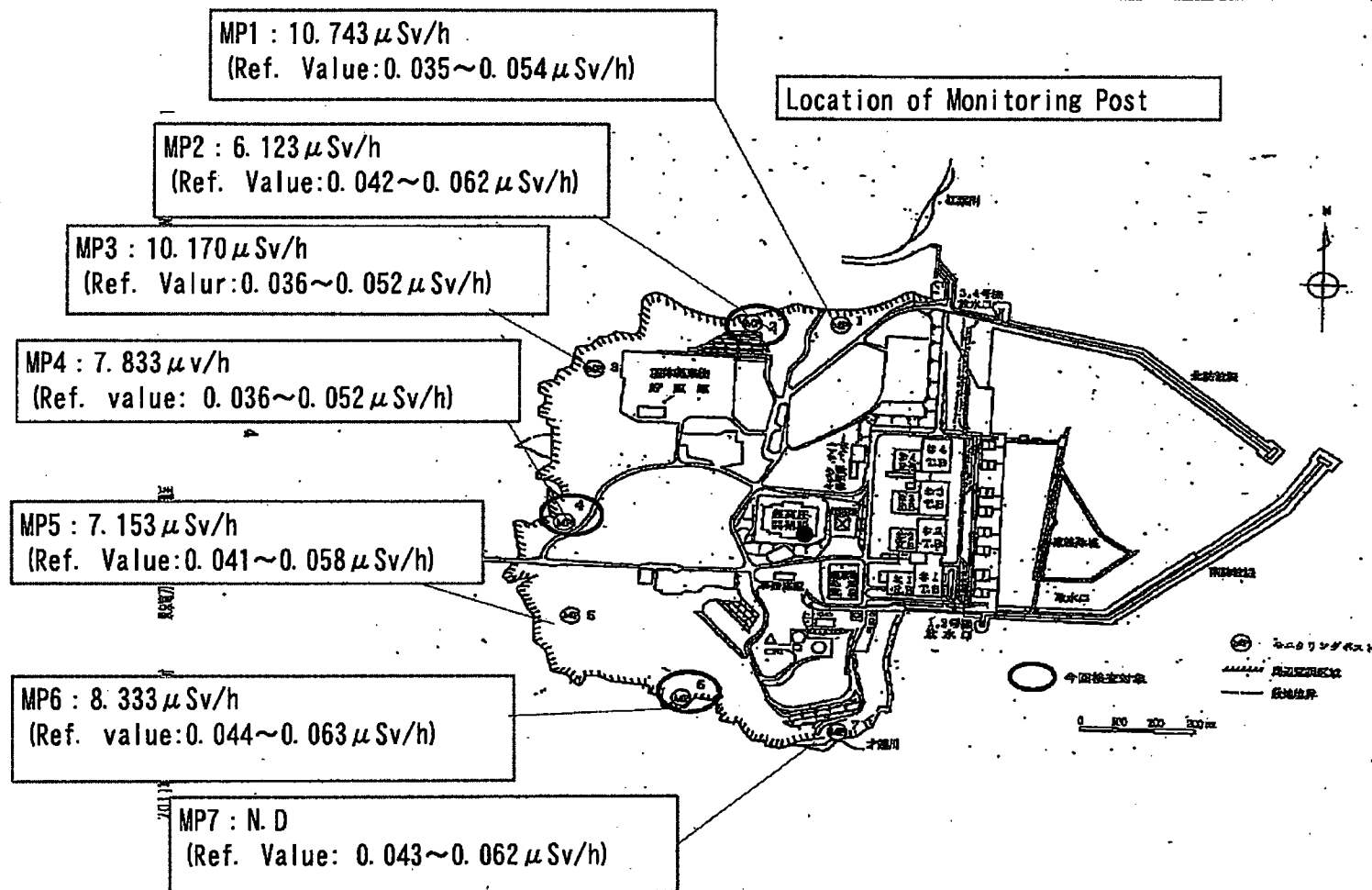
March 25th, 2011																								
monitoring point	0:00	0:10	0:20	0:30	0:40	0:50	1:00	1:10	1:20	1:30	1:40	1:50	2:00	2:10	2:20	2:30	2:40	2:50	3:00	3:10	3:20	3:30	3:40	3:50
MP1 (μ Sv/h)	12.297	12.297	12.280	12.287	12.277	12.227	12.247	12.217	12.220	12.200	12.237	12.210	12.190	12.177	12.170	12.203	12.173	12.120	12.133	12.143	12.097	12.133	12.100	12.077
MP2 (μ Sv/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 (μ Sv/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 (μ Sv/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 (μ Sv/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 (μ Sv/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 (μ Sv/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	NNW	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 25rd, 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 (μ Sv/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 (μ Sv/h)	7.090	7.093	7.077	7.080	7.060	7.083	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 (μ Sv/h)	11.677	11.680	11.677	11.667	11.680	11.690	11.667	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 (μ Sv/h)	9.113	9.133	9.090	9.090	9.087	9.107	9.073	9.067	9.080	9.057	9.083	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 (μ Sv/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 (μ Sv/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	9.587	9.593	9.607	9.570	9.557
MP7 (μ Sv/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	NNW	NNW	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 25rd, 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 (μ Sv/h)	12.040	18.870	21.737	24.850	18.083	17.580	17.270	16.780	16.937	16.317	16.040	15.727	15.543	15.277	15.040	14.877	14.737	14.507	14.423	14.283	14.107	14.030	13.870	13.773
MP2 (μ Sv/h)	7.020	9.087	14.597	21.447	9.993	9.200	9.117	8.793	9.190	8.757	8.573	8.447	8.290	8.187	8.093	8.043	7.977	7.880	7.837	7.797	7.763	7.707	7.667	7.630
MP3 (μ Sv/h)	11.567	11.683	15.243	17.277	17.533	14.967	13.917	13.703	13.870	13.583	13.360	13.300	13.110	12.990	12.880	12.817	12.680	12.613	12.553	12.503	12.397	12.423	12.327	12.280
MP4 (μ Sv/h)	9.047	9.083	12.067	13.833	13.113	11.820	10.737	10.587	10.540	10.407	10.170	10.150	10.077	9.973	9.853	9.763	9.707	9.687	9.590	9.550	9.550	9.507	9.473	9.433
MP5 (μ Sv/h)	8.527	8.533	10.887	14.713	13.507	11.373	10.573	10.287	10.153	10.073	9.787	9.607	9.700	9.607	9.407	9.287	9.220	9.167	9.120	9.087	9.020	8.973	8.820	8.820
MP6 (μ Sv/h)	9.547	9.570	11.673	13.677	14.300	11.567	11.173	11.023	10.933	10.897	10.867	10.680	10.647	10.573	10.463	10.380	10.323	10.310	10.213	10.180	10.167	10.140	10.117	10.020
MP7 (μ Sv/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	N	N	N	NNW	NNE	NNE	NNE	NE	NE	ENE	NE	ENE	NE	ENE	NE	E	E	ESE	E	ESE	ESE	ESE	SE	SE
wind speed (m/s)	3.5	2.3	2.2	3.6	5.1	5.1	5.0	4.3	3.3	4.1	5.3	4.1	4.5	2.1	2.6	3.1	3.6	3.1	3.5	3.1	3.2	3.3	1.4	3.5

Fukushima Dai-ni NPS

as of 14:30, March 26th, 2011



Results of environmental monitoring at each NPSs etc.

unit: μ Sv/h

unit: μ Sv/h

Range of normal average value	Company	NPS	March 25th, 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	0.026	0.028	0.026	0.025	0.024	0.025	0.033	0.034	0.040	0.040
0.024~0.060	Tohoku Electric Power Co.	Onagawa NPS	1.00	0.99	0.99	0.99	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.96
0.012~0.060		Higashidori NPS	0.017	0.018	0.018	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017
0.033~0.050	Tokyo Electric Power Co.	Fukushima Dai-ichi [*]	235.8	222.3	212.6	205.8	197.4	196	194.7	199.5	213.9	204.9	191.4	187
0.036~0.052		Fukushima Dai-ni	12.233	11.920	11.673	11.527	11.383	11.253	11.233	11.160	10.937	10.757	10.733	11.557
0.011~0.159		Kashiwazaki Kariwa NPS	0.066	0.067	0.065	0.066	0.065	0.066	0.067	0.074	0.078	0.073	0.070	0.066
0.036~0.053	Japan Atomic Power Co.	Tokai Dai-ni NPS	0.903	0.899	0.899	0.887	0.882	0.881	0.878	0.874	0.865	0.866	0.859	0.853
0.039~0.110		Tsuruga NPS	0.073	0.073	0.074	0.075	0.073	0.080	0.091	0.090	0.078	0.074	0.074	0.079
0.064~0.108	Chubu Electric Power Co.	Hamaoka NPS	0.080	0.080	0.080	0.081	0.086	0.083	0.081	0.081	0.083	0.081	0.080	0.079
0.0207~0.132	Hokuriku Electric Power Co.	Shika NPS	0.032	0.034	0.034	0.034	0.042	0.047	0.040	0.035	0.033	0.033	0.042	0.037
0.028~0.130	Chugoku Electric Power Co.	Shimane NPS	0.028	0.030	0.031	0.029	0.029	0.029	0.029	0.033	0.039	0.037	0.037	0.038
0.070~0.077		Mihama NPS	0.073	0.072	0.072	0.071	0.074	0.079	0.087	0.079	0.074	0.073	0.072	0.082
0.045~0.047	Kansai Electric Power Co.	Takahama NPS	0.043	0.044	0.044	0.043	0.044	0.050	0.045	0.044	0.043	0.050	0.048	0.054
0.036~0.040		Ooi NPS	0.035	0.034	0.035	0.035	0.036	0.045	0.042	0.038	0.036	0.042	0.043	0.045
0.011~0.080	Shikoku Electric Power Co.	Ikata NPS	0.014	0.014	0.013	0.013	0.014	0.014	0.014	0.013	0.014	0.013	0.014	0.014
0.023~0.087	Kyushu Electric Power Co.	Genkai NPS	0.026	0.026	0.026	0.027	0.027	0.027	0.027	0.026	0.026	0.027	0.027	0.028
0.034~0.120		Sendai NPS	0.035	0.037	0.037	0.038	0.036	0.039	0.037	0.036	0.038	0.038	0.035	0.037
0.009~0.069	Japan Nuclear Fuel Limited	Japan Nuclear Fuel Reprocessing Plant	0.017	0.016	0.016	0.016	0.016	0.016	0.017	0.017	0.016	0.016	0.018	0.017
0.009~0.071		Japan Nuclear Fuel Plant Disposal	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.019	0.020	0.021

*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 26th, 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	0.032	0.028	0.026	0.026	0.026	0.026	0.025	0.026	0.026	0.026		
0.024~0.060	Tohoku Electric Power Co.	Onagawa NPS	0.95	0.94	0.94	0.93	0.92	0.92	0.91	0.91	0.91	0.90		
0.012~0.060		Higashidori NPS	0.017	0.017	0.018	0.017	0.017	0.017	0.018	0.018	0.018	0.022		
0.033~0.050	Tokyo Electric Power Co.	Fukushima Dai-ichi [*]	184.4	182.5	179.9	172.4	169.2	166.9	169.0	169.5	170.3	170.8		
0.036~0.052		Fukushima Dai-ni	11.343	11.107	10.987	10.767	10.613	10.493	10.433	10.443	10.437	10.340		
0.011~0.159		Kashiwazaki Kariwa NPS	0.065	0.066	0.066	0.080	0.080	0.072	0.069	0.066	0.066	0.066		
0.036~0.053	Japan Atomic Power Co.	Tokai Dai-ni NPS	0.852	0.850	0.852	0.855	0.851	0.840	0.840	0.837	0.834	0.834		
0.039~0.110		Tsuruga NPS	0.076	0.073	0.074	0.075	0.078	0.076	0.072	0.073	0.075	0.073		
0.064~0.108	Chubu Electric Power Co.	Hamaoka NPS	0.080	0.080	0.080	0.079	0.080	0.080	0.080	0.080	0.079	0.079		
0.0207~0.132	Hokuriku Electric Power Co.	Shika NPS	0.063	0.058	0.043	0.035	0.033	0.032	0.031	0.032	0.032	0.032		
0.028~0.130	Chugoku Electric Power Co.	Shimane NPS	0.035	0.033	0.034	0.030	0.029	0.032	0.031	0.030	0.030	0.030		
0.070~0.077		Mihama NPS	0.076	0.074	0.073	0.076	0.078	0.074	0.071	0.073	0.074	0.077		
0.045~0.047	Kansai Electric Power Co.	Takahama NPS	0.050	0.048	0.047	0.046	0.044	0.044	0.043	0.047	0.044	0.042		
0.036~0.040		Ooi NPS	0.044	0.047	0.045	0.043	0.037	0.037	0.036	0.042	0.037	0.036		
0.011~0.080	Shikoku Electric Power Co.	Ikata NPS	0.014	0.014	0.014	0.015	0.014	0.014	0.014	0.014	0.014	0.015		
0.023~0.087	Kyushu Electric Power Co.	Genkai NPS	0.026	0.027	0.028	0.027	0.027	0.026	0.028	0.027	0.027	0.026		
0.034~0.120		Sendai NPS	0.037	0.038	0.036	0.038	0.036	0.036	0.040	0.040	0.041	0.037		
0.009~0.069	Japan Nuclear Fuel Limited	Japan Nuclear Fuel Reprocessing Plant	0.016	0.017	0.016	0.017	0.018	0.016	0.017	0.016	0.017	0.018		
0.009~0.071		Japan Nuclear Fuel Plant Disposal	0.021	0.020	0.020	0.020	0.021	0.021	0.021	0.021	0.022	0.023		

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