

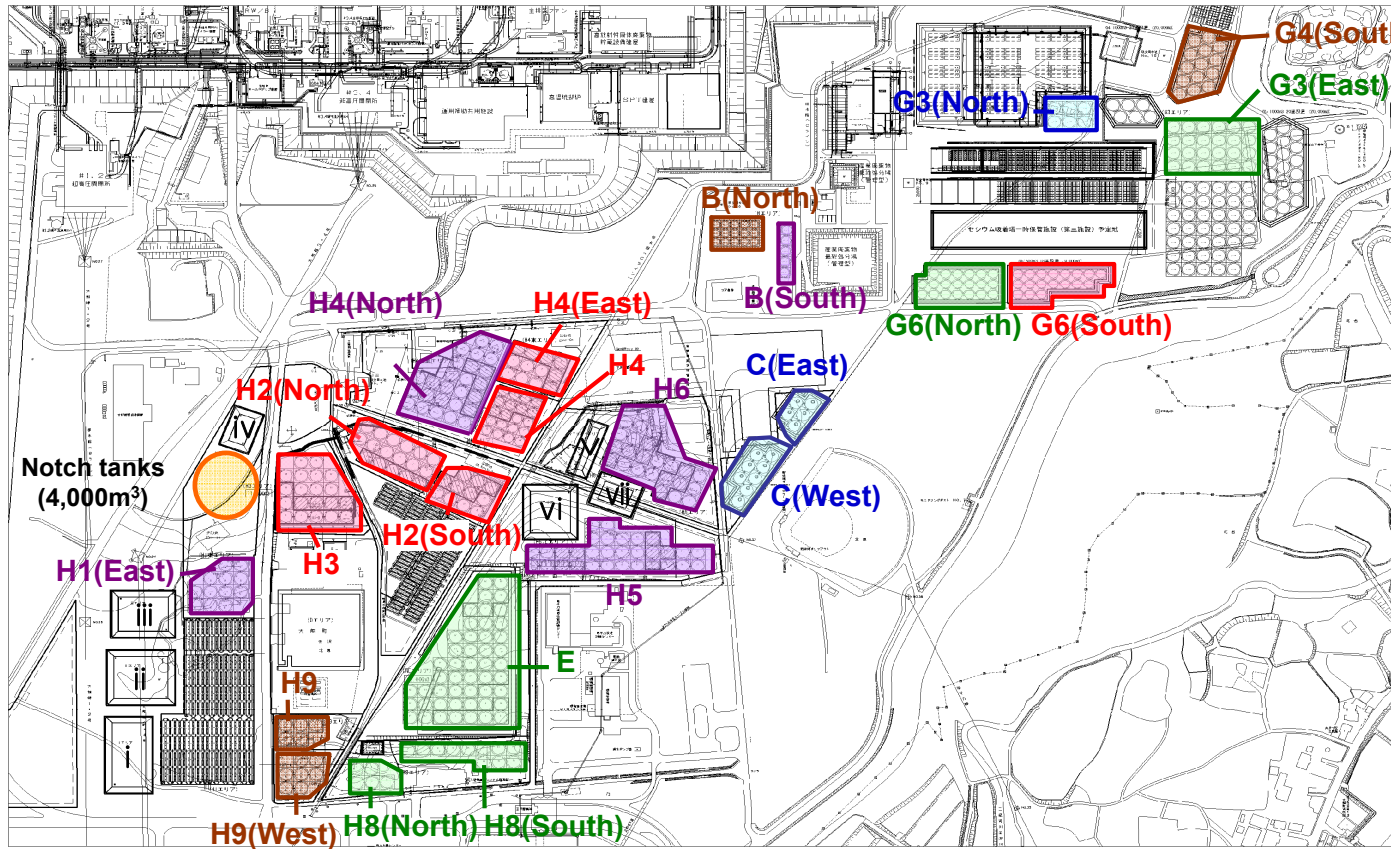
[Reference] Countermeasures against Heavy Rainfall Occurred on October 20 of Each Tank Area at Fukushima Daiichi NPS (Updated at 5:30 PM on October 21)

October 21, 2013
Tokyo Electric Power Company

Name of area (Type of tank)	Water type stored	Time when overflowing of water was observed	Countermeasures against heavy rainfall (implemented on Oct 20)	Amount of pumping up, transfer and discharge	Analysis result [Bq/L] on Oct 20 The detection limit value is provided in parentheses	Sampling time	Note
H1-East (Flange type)	RO concentrated water	-	Water transfer to the notch tanks (4,000m ³) was conducted	Under confirmation	- Cs-134: Below the detection limit value (7.4) - Cs-137: Below the detection limit value (10) - Sr-90: 24	6:05 PM on Oct 20	
H2-North (Flange type)	RO concentrated water	4:20 PM on Oct 20	Water transfer to the H2-South area dike and the notch tanks (4,000m ³) was conducted	Under confirmation	- Cs-134: Below the detection limit value (7.8) - Cs-137: Below the detection limit value (10) - Sr-90: 32	7:30 PM on Oct 20	
H2-South (Flange type)	RO concentrated water	4:20 PM on Oct 20	Water transfer to the notch tanks (4,000m ³) was conducted Pumping up to the H2-South area tanks was conducted Suction by a vacuum was conducted	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17) - Sr-90: 710	8:00 PM on Oct 20	All β: 29,000Bq/L (Obtained from water inside the dike on Oct 6)
H3 (Flange type)	RO concentrated water	8:45 PM on Oct 20	Suction by a vacuum was conducted	Under confirmation	- Cs-134: Below the detection limit value (8.4) - Cs-137: Below the detection limit value (12) - Sr-90: 160	6:30 PM on Oct 20	All β: 4,600Bq/L (Obtained from water inside the dike on Sep 15)
H4-North (Flange type)	RO concentrated water	-	Water transfer to the notch tanks (4,000m ³) was conducted Suction by a vacuum was conducted	Under confirmation	- Cs-134: 18 - Cs-137: 44 - Sr-90: 12,000	7:10 PM on Oct 20	All β: 170,000Bq/L (Obtained from water inside the dike on Sep 15)
H4-East (Flange type)	RO concentrated water	5:38 PM on Oct 20	Water transfer to the notch tanks (4,000m ³) was conducted	Under confirmation	- Cs-134: Below the detection limit value (7.3) - Cs-137: Below the detection limit value (9.9) - Sr-90: 300	6:50 PM on Oct 20	All β: 2,400Bq/L (Obtained from water inside the dike on Sep 15)
H4 (Flange type)	RO concentrated water	5:32 PM on Oct 20	Water transfer to the notch tanks (4,000m ³) was conducted	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17) - Sr-90: 26	6:30 PM on Oct 20	
H5 (Flange type)	RO concentrated water	-	Water transfer to the notch tanks (4,000m ³), and then to the underground reservoir No.7 was conducted	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17) - Sr-90: 120	4:30 PM on Oct 20	
H6 (Flange type)	RO concentrated water	-	Water transfer to the notch tanks (4,000m ³), and then to the underground reservoir No.7 was conducted	Under confirmation	- Cs-134: Below the detection limit value (8.8) - Cs-137: Below the detection limit value (12) - Sr-90: 44	4:50 PM on Oct 20	
H9 (Flange type)	RO treated water (Freshwater)	-	There is a margin left in the water level inside the dike	Under confirmation	- Cs-134: Below the detection limit value (7.8) - Cs-137: Below the detection limit value (10) - Sr-90: Below the detection limit value (2.2)	5:35 PM on Oct 20	
H9西 (Flange type)	RO treated water (Freshwater)	-	There is a margin left in the water level inside the dike	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17) - Sr-90: Below the detection limit value (2.2)	5:30 PM on Oct 20	
B-North (Flange type)	RO treated water (Freshwater)	-	There is a margin left in the water level inside the dike	Under confirmation	- Cs-134: Below the detection limit value (7.7) - Cs-137: 20 - Sr-90: 7.5	8:15 PM on Oct 20	
B-South (Flange type)	RO treated water (Freshwater)	-	Suction by a vacuum was conducted	Under confirmation	- Cs-134: 35 - Cs-137: 68 - Sr-90: 27	8:05 PM on Oct 20	All β: 200,000Bq/L (Obtained from water inside the dike on Oct 2)
C-East (Flange type)	RO concentrated water	-	Water transfer to the notch tank was started	Under confirmation	- Cs-134: Below the detection limit value (8.0) - Cs-137: Below the detection limit value (10)	4:45 PM on Oct 20	
			Then, at 12:00 AM on Oct 21, water discharge from the notch tank was started At 12:25 AM on Oct 21, water inside the dike was directly discharged to the outside of the dike by a pump	Under confirmation	- Sr-90: 3.0		
C-West (Flange type)	RO concentrated water	-	Water transfer to the notch tank was started	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17)	4:40 PM on Oct 20	
			Then, at 12:00 AM on Oct 21, water discharge from the notch tank was started At 0:10 AM on Oct 21, a drain valve was opened	Under confirmation	- Sr-90: Below the detection limit value (2.2)		
E (Flange type)	RO concentrated water	7:45 PM on Oct 20	At 9:14 PM on Oct 20, a drain valve was opened	Under confirmation	- Cs-134: Below the detection limit value (7.6) - Cs-137: Below the detection limit value (10) - Sr-90: 2.7	6:15 PM on Oct 20	
G4-South (Flange type)	RO concentrated water	-	Pumping up to the G4-South area tank was conducted	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17) - Sr-90: 3.5	3:50 PM on Oct 20	
G6-North (Flange type)	RO concentrated water	4:35 PM on Oct 20	At 7:55 PM on Oct 20, a drain valve was opened	Under confirmation	- Cs-134: Below the detection limit value (13) - Cs-137: Below the detection limit value (17) - Sr-90: 7.2	2:12 PM on Oct 20	
G6-South (Flange type)	RO concentrated water	4:35 PM on Oct 20	After water in the G6-North area was discharged by opening a drain valve, the valve was closed, and water transfer to the G6-North area dike was conducted	Under confirmation	- Cs-134: Below the detection limit value (8.0) - Cs-137: Below the detection limit value (12) - Sr-90: 21	2:17 PM on Oct 20	* First sampling out of two
G3-East (Welding type)	Treated water through Multi-nuclide Removal Apparatus	4:30 PM on Oct 20	At 7:23 PM on Oct 20, a drain valve was opened	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17) - Sr-90: 4.2	4:00 PM on Oct 20	
G3-North (Welding type)	RO concentrated water	-	At 7:05 PM on Oct 20, a drain valve was opened	Under confirmation	- Cs-134: Below the detection limit value (8.6) - Cs-137: Below the detection limit value (12) - Sr-90: 4.1	3:40 PM on Oct 20	
H8-North (Flange type)	RO concentrated water	8:05 PM on Oct 20	At 8:50 PM on Oct 20, a drain valve was opened	Under confirmation	- Cs-134: Below the detection limit value (12) - Cs-137: Below the detection limit value (17) - Sr-90: Below the detection limit value (2.2)	5:35 PM on Oct 20	
H8-South (Flange type)	RO concentrated water	8:05 PM on Oct 20	At 8:58 PM on Oct 20, a drain valve was opened	Under confirmation	- Cs-134: Below the detection limit value (8.5) - Cs-137: Below the detection limit value (12) - Sr-90: 2.3	5:47 PM on Oct 20	

* Discharge standard
 -Cesium-134: Below 15Bq/L (Sea Discharge Standard Value: 60 Bq/L)
 -Cesium-137: Below 25Bq/L (Sea Discharge Standard Value: 90 Bq/L)
 -No detection of the other γ nuclides (excludes natural nuclides)
 -Strontium-90: Below 10Bq/L (Sea Discharge Standard Value: 30 Bq/L)
 -Satisfaction of the notification levels for the other nuclides, by using water quality, etc. of the tanks as a reference.

Status of Water inside the Dike of Each Tank Area at Fukushima Daiichi NPS (October 20)



[Legend]

- Area with overflowing water which exceeded the standard (6 locations)
- Area with overflowing water which satisfied the standard, and drain valve was opened (5 locations)
- Area with no overflowing water which satisfied the standard, and drain valve was opened (3 locations) * Water discharge was performed by a pump at the C (East) area
- Area with no overflowing water which exceeded the standard (5 locations)
- Area with no overflowing water which satisfied the standard (4 locations)

* i to vii indicate the location of each underground reservoir

- ◆ Area with overflowing water (11 locations)
- ◆ Area with no overflowing water (12 locations)
- ◆ Area where drain valve was opened (8 locations)
- ◆ Area where drain valve was not opened (15 locations)
- ◆ Area which satisfied the standard (12 locations)
- ◆ Area which exceeded the standard (11 locations)

[Analysis results of water inside the dike at each tank area (sampled on October 20, 2013)]

(Unit: Bq/L)

Sampling location	B-North	B-South	C-East		C-West		E	G3-North	G3-East	G4-South	G6-North			G6-South			H1-East		
	4 corners of dike	4 corners of dike	4 corners of dike	Notch tank	4 corners of dike	Notch tank	4 corners of dike	4 corners of dike	4 corners of dike	4 corners of dike	4 corners of dike	4 corners of dike	Notch tank	4 corners of dike	4 corners of dike (second time)	Overflowing water	Notch tank	4 corners of dike	Upper layer water
Sampling time	20:15	20:05	16:45	20:45	16:40	20:40	18:15	15:40	16:00	15:50	14:12	14:07	14:17	19:10	19:20	14:22	18:05	22:10	
Cs-134	ND (7.7)	35	ND (8.0)	ND (8.3)	ND (12)	ND (12)	ND (7.6)	ND (8.6)	ND (12)	ND (12)	ND (13)	ND (12)	ND (8.0)	ND (7.1)	ND (8.5)	ND (11)	ND (7.4)	ND (7.3)	
Cs-137	20	68	ND (10)	ND (12)	ND (17)	ND (17)	ND (10)	ND (12)	ND (17)	ND (17)	ND (17)	18	ND (12)	ND (9.9)	12	ND (17)	ND (10)	ND (10)	
Sr-90	7.5	27	3.0	3.7	ND (2.2)	ND (2.2)	2.7	4.1	4.2	3.5	7.2	6.9	21	11	10	15	24	28	

Sampling location	H2-North		H2-South		H3		H4-North	H4		H4-East		H5	H6	H8-North	H8-South	H9	H9-West		Discharge standard	
	4 corners of dike	Overflowing water	4 corners of dike	Overflowing water	4 corners of dike	Upper layer water	4 corners of dike	4 corners of dike	Overflowing water	4 corners of dike	Overflowing water	4 corners of dike	4 corners of dike	4 corners of dike	4 corners of dike	Notch tank	4 corners of dike	Notch tank		4 corners of dike
Sampling time	19:30	19:25	20:00	19:50	18:30	22:20	19:10	18:30	19:50	18:50	19:50	16:30	16:50	17:35	17:47	22:45	17:35	22:55	17:30	
Cs-134	ND (7.8)	ND (7.2)	ND (12)	ND (9.0)	ND (8.4)	ND (8.2)	18	ND (12)	ND (7.4)	ND (7.3)	ND (8.3)	ND (12)	ND (8.8)	ND (12)	ND (8.5)	ND (8.3)	ND (7.8)	ND (7.4)	ND (12)	15
Cs-137	ND (10)	ND (10)	ND (17)	ND (12)	ND (12)	ND (12)	44	ND (17)	ND (10)	ND (9.9)	ND (12)	ND (17)	ND (12)	ND (17)	ND (12)	ND (12)	ND (10)	ND (10)	ND (17)	25
Sr-90	32	27	710	710	160	190	12,000	26	13	300	240	120	44	ND (2.2)	2.3	ND (2.2)	ND (2.2)	ND (2.2)	ND (2.2)	10

* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

* 78Bq/L of Sr-125 was detected at the H4-North area.