<Reference>
August 23, 2013
Tokyo Electric Power Company

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (1/4)
Underground Water Obtained at Bank Protection

Unit: Bq/L

		Underground water observation hole No.0-1	Underground water observation hole No.1	Underground water observation hole No.1-2	Underground water observation hole No.1-3	Underground water observation hole No.1-4	Underground water observation hole No.1-5	Underground water observation hole No.1-8	Groundwater pumped up from the well point	Underground water observation hole No.2	Underground water observation hole No.2-1	Underground water observation hole No.3	Underground water observation hole No.3-1
Date of sampling			Aug 19, 2013	Aug 19, 2013	Aug 19, 2013	Aug 19, 2013	Aug 19, 2013	Aug 20, 2013	Aug 19, 2013	Aug 19, 2013	Aug 19, 2013		
Time of sampling			10:21 AM	12:06 PM	10:54 AM	9:50 AM	11:40 AM	9:40 AM	11:20 AM	9:57 AM	9:18 AM		
Cs-134 (Approx. 2 years)			3.2	880	ND(0.56)	1.1	130	21	1.5	ND(0.42)	ND(0.45)		
Cs-137 (Approx.30 years)			4.3	1,900	ND(0.65)	2.1	260	45	3.4	0.68	ND(0.61)		
The other γ	Ru-106 (Approx. 370 days)		14	ND	14	ND	ND	ND	17	ND	ND		
	Sb-125 (Approx. 3 years)		ND	200	ND	ND	ND	ND	ND	ND	ND		
All β			1,500	870,000	120,000	380	13,000	1,100	190,000	420	ND(18)		
H-3 (Approx. 12 years)			310,000	180,000	190,000	75,000	56,000	950	460,000	730	330		
Sr-90（Approx. 29 years）			-	-	-	-	-	Under analysis	-	-	-		

* Data announced this time is provided in a thick-frame. The other data was announced on August 20 and 21.
* "ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.
* "-" indicates that the measurement was out of range.

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (2/4)
Underground Water Obtained at Bank Protection

Unit: Bq/L

		Underground water observation hole No.0-1	Underground water observation hole No.1	Underground water observation hole No.1-2	Underground water observation hole No.1-3	Underground water observation hole No.1-4	Underground water observation hole No.1-5	Underground water observation hole No.1-8	Groundwater pumped up from the well point	Underground water observation hole No.2	Underground water observation hole No.2-1	Underground water observation hole No.3	Underground water observation hole No.3-1
Date of sampling		Aug 22, 2013	Aug 22, 2013	Aug 22, 2013	Aug 22, 2013	Aug 22, 2013	Aug 22, 2013			Aug 22, 2013	Aug 22, 2013		Aug 22, 2013
Time of sampling		9:41 AM	10:58 AM	12:33 PM	11:25 AM	10:20 AM	12:00 PM			9:25 AM	9:57 AM		11:55 AM
Cs-134 (Approx. 2 years)		ND(0.42)	ND(0.57)	150	1.0	1.0	91			ND(0.41)	ND(0.43)		0.68
Cs-137 (Approx.30 years)		0.64	0.66	360	2.3	1.8	190			0.74	ND(0.56)		1.2
The other γ	Ru-106 (Approx. 370 days)	ND	7.9	ND	12	ND	ND			ND	ND		ND
All β		300	1,500	840,000	130,000	240	6,200			270	17		55
H-3 (Approx. 12 years)		Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis			Under analysis	Under analysis		Under analysis
Sr-90（Approx. 29 years）		-	Under analysis	-	-	-	Under analysis			-	-		-

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

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (3/4)
Seawater

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, North side of Unit 1-4 water intake channel	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Unit 1 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 2 and Unit 3	1F, Unit 3 Screen (Inside the Silt Fence)
Date of Sampling	Aug 19, 2013	Aug 19, 2013	Aug 19, 2013	Aug 20, 2013	Aug 19, 2013	Aug 19, 2013	Aug 20, 2013	Aug 20, 2013	Aug 19, 2013	Aug 19, 2013	Aug 19, 2013
Time of sampling	6:10 AM	6:30 AM	5:53 AM	6:33 AM	6:43 AM	6:09 AM	6:41 AM	6:41 AM	6:17 AM	6:21 AM	6:28 AM
Cs-134(Approx. 2 years)	ND(1.4)	2.4	3.3	22	8	24	16	8.3	26	12	68
Cs-137(Approx.30 years)	ND(1.5)	4.7	7.4	47	19	41	37	19	52	30	140
All β	ND(18)	46	28	550	280	540	310	140	490	310	270
H-3 (Approx. 12 years)	5.4	24	ND(120)	2,000	300	1800	1,300	690	820	240	160
Sr-90（Approx. 29 years）	Under analysis	-	Under analysis	-	Under analysis	Under analysis	-	-	Under analysis	Under analysis	Under analysis

Unit: Bq/L

	1F, Between the water intake channel of Unit 3 and Unit 4	1F, Unit 4 Screen (Inside the Silt Fence)	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater*	East side of the port entrance*	South side of the south breakwater*
Date of Sampling	Aug 19, 2013	Aug 19, 2013	Aug 19, 2013								
Time of sampling	6:32 AM	6:37 AM	5:20 AM								
Cs-134(Approx. 2 years)	20	20	ND(1.4)								
Cs-137(Approx.30 years)	43	49	ND(1.5)								
All β	160	200	ND(18)								
H-3 (Approx. 12 years)	270	ND(120)	ND(3.0)								
Sr-90（Approx. 29 years）	Under analysis	Under analysis	Under analysis								

* Data announced this time is provided in a thick-frame. The other data was announced on August 20 and 21.

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

* "-" indicates that the measurement was out of range.

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (4/4)
Seawater

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, North side of Unit 1-4 water intake channel	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Unit 1 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 2 and Unit 3	1F, Unit 3 Screen (Inside the Silt Fence)
Date of Sampling				Aug 22, 2013			Aug 22, 2013	Aug 22, 2013			
Time of sampling				6:09 AM			6:31 AM	6:31 AM			
Cs-134(Approx. 2 years)				24			20	5.2			
Cs-137(Approx.30 years)				51			39	7.9			
All β				620			540	210			
H-3 (Approx. 12 years)				Under analysis			Under analysis	Under analysis			
Sr-90（Approx. 29 years）				Under analysis			Under analysis	Under analysis			

Unit: Bq/L

	1F, Between the water intake channel of Unit 3 and Unit 4	1F, Unit 4 Screen (Inside the Silt Fence)	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater*	East side of the port entrance*	South side of the south breakwater*
Date of Sampling									Aug 21, 2013	Aug 21, 2013	Aug 21, 2013
Time of sampling									8:09 AM	8:16 AM	8:01 AM
Cs-134(Approx. 2 years)									ND(1.1)	ND(1.0)	ND(1.0)
Cs-137(Approx.30 years)									ND(1.4)	ND(1.3)	ND(1.4)
All β									ND(20)	ND(20)	ND(20)
H-3 (Approx. 12 years)									Under analysis	Under analysis	Under analysis
Sr-90（Approx. 29 years）									-	-	-

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

<Reference> The Highest Dose Until the Previous Measurement (Groundwater Obtained at Bank Protection)

Unit: Bq/L

		Groundwater observation hole No.0-1		Groundwater observation hole No.1		Groundwater observation hole No.1-1		Groundwater observation hole No.1-2		Groundwater observation hole No.1-3		Groundwater observation hole No.1-4		Groundwater observation hole No.1-5		Groundwater observation hole No.1-8	
Cs-134 (Approx. 2 years)		0.66	〔8/10〕	3.2	〔8/19〕	1.9	〔7/8〕	11,000	〔7/9〕	ND		1.5	〔7/8〕	〔11/5〕	〔8/5〕	21	〔8/20〕
Cs-137 (Approx.30 years)		1.6	〔8/8〕	4.3	〔8/19〕	3.6	〔7/8〕	22,000	〔7/9〕	1.4	〔7/12〕	3.6	〔7/8〕	〔10/11〕	〔8/5〕	45	〔8/20〕
The other γ	Ru-106 (Approx. 370 days)	ND		26	〔5/24〕	7.9	〔7/8〕	160	〔8/15〕	17	〔7/22〕 〔8/8〕	3.1	〔8/8〕	ND		ND	
	Mn-54 (Approx. 310 days)	ND		ND		1.0	〔7/5〕	62	〔7/5〕	ND		ND		ND		ND	
	Co-60 (Approx. 5 years)	ND		0.50	〔7/19〕	ND		3.1	〔7/8〕	ND		ND		ND		ND	
	Sb-125 (Approx. 3 years)	ND		1.7	〔7/11〕	ND		250	〔7/15〕	1.4	〔7/12〕	ND		〔1/12〕	〔8/8〕	ND	
All β		290	〔8/10〕	1,900	〔5/24〕	4,400	〔7/8〕	900,000	〔7/5〕 〔7/9〕	160,000	〔8/12〕 〔8/15〕	380	〔8/19〕	〔4/26〕	〔8/5〕	1,100	〔8/20〕
H-3 (Approx. 12 years)		35000	〔8/15〕	500,000	〔5/24〕 〔6/7〕	630,000	〔7/8〕	390,000	〔8/5〕	290,000	〔7/12〕	98,000	〔7/11〕	〔2/14〕	〔8/15〕	950	〔8/20〕
Sr-90(Approx. 29 years)		Under analysis		1,200	〔6/7〕	Under analysis		Under analysis		Under analysis		Under analysis		Under analysis		Under analysis	

Unit: Bq/L

		Groundwater observation hole No.2		Groundwater observation hole No.2-1		Groundwater observation hole No.3		Groundwater observation hole No.3-1		Groundwater pumped up from the well point	
Cs-134 (Approx. 2 years)		0.5	〔7/9〕	0.44	〔8/1〕	3.5	〔7/25〕	1.2	〔7/25〕 〔8/8〕	1.5	〔8/19〕
Cs-137 (Approx.30 years)		1.2	〔7/11〕 〔8/1〕	1.0	〔7/29〕	5.9	〔8/8〕	2.6	〔8/1〕	3.4	〔8/19〕
The other γ	Ru-106 (Approx. 370 days)	ND		ND		ND		ND		17	〔8/19〕
	Mn-54 (Approx. 310 days)	ND		ND		ND		ND			
	Co-60 (Approx. 5 years)	ND		ND		ND		ND			
	Sb-125 (Approx. 3 years)	ND		ND		ND		ND			
All β		1,700	〔7/8〕	380	〔7/29〕	1,400	〔7/11〕	180	〔8/1〕	190000	〔8/19〕
H-3 (Approx. 12 years)		850	〔6/26〕	290	〔8/12〕	3,200	〔2012/12/12〕	460	〔8/1〕	460,000	〔8/19〕
Sr-90(Approx. 29 years)		54	〔5/31〕	Under analysis		8.3	〔2012/12/12〕	Under analysis		-	

* "ND" indicates that the measurement result is below the detection limit.
* Date of sampling is provided in parentheses.

<Reference> The Highest Dose Until the Previous Measurement* (Seawater)

Unit: Bq/L

	1F, North side of Unit 5,6 discharge channel	1F, In front of Unit 6 water intake channel	1F, In front of shallow draft quay	1F, North side of Unit 1-4 water intake channel	1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)	1F, Unit 1 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen (Inside the Silt Fence)	1F, Between the water intake channel of Unit 2 and Unit 3 (surface layer)	1F, Between the water intake channel of Unit 2 and Unit 3 (lower layer)	1F, Unit 3 Screen (Inside the Silt Fence)
Cs-134(Approx. 2 years)	1.8 〔6/21〕	2.4 〔8/19〕	5.3 〔8/5〕	34 〔8/13〕	16 〔8/12〕	24 /12〕〔8/1	27 〔8/10〕	9.9 〔7/23〕	26 〔8/19〕	21 〔8/12〕	3.5 〔8/20〕	350 〔7/15〕
Cs-137(Approx.30 years)	3.3 〔6/26〕	4.7 〔8/19〕	8.6 〔8/5〕	81 〔8/13〕	33 〔8/12〕	51 〔8/12〕	56 〔8/10〕	20 〔8/15〕	52 〔8/19〕	37 〔8/12〕	9.8 〔8/20〕	770 〔7/15〕
All β	ND	46 〔8/19〕	40 〔7/3〕	1,100 〔8/15〕	320 〔8/12〕	700 〔8/12〕	740 〔8/15〕	450 〔7/16〕	370 〔8/12〕	410 〔8/12〕	85 〔8/20〕	1000 〔7/15〕
H-3 (Approx. 12 years)	8.6 〔6/26〕	11 〔7/15〕	340 〔6/26〕	4,700 〔8/15〕	460 〔7/15〕	2,500 〔8/12〕	2,600 〔8/15〕	1,200 〔8/4〕	570 〔8/12〕	720 〔8/12〕	-	380 〔8/12〕
Sr-90（Approx. 29 years）	5.8 〔6/26〕	-	7.4 〔6/26〕	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	Under analysis	-	Under analysis

Unit: Bq/L

	1F, Between the water intake channel of Unit 3 and Unit 4 (surface layer)	1F, Between the water intake channel of Unit 3 and Unit 4 (lower layer)	1F, Unit 4 Screen (Inside the Silt Fence)	1F, Around the south discharge channel	1F, Port entrance	1F, East side in the port	1F, West side in the port	1F, North side in the port	1F, South side in the port	North side of the north breakwater	East side of the port entrance	South side of the south breakwater
Cs-134(Approx. 2 years)	22 〔8/12〕	4.8 〔8/20〕	46 〔7/8〕	ND	1.6 〔8/19〕	2.9 〔8/19〕	2.6 〔8/19〕	ND	2.1 〔8/19〕	ND	ND	ND
Cs-137(Approx.30 years)	45 〔8/12〕	7.7 〔8/20〕	93.0 〔7/8〕	3.0 〔7/15〕	4.7 〔8/19〕	6.6 〔8/19〕	6.5 〔8/19〕	4.7 〔8/19〕	4.6 〔8/19〕	ND	ND	ND
All β	390 〔8/12〕	57 〔8/20〕	310 〔8/12〕	ND	69 〔8/19〕	74 〔8/19〕	60 〔7/4〕	69 〔8/19〕	79 〔8/19〕	ND	ND	ND
H-3 (Approx. 12 years)	650 〔8/12〕	—	400 〔8/12〕	ND	29 〔6/26〕	44 〔7/4〕	37 〔7/4〕	6.5 〔8/12〕	3.4 〔8/12〕	4.7 〔8/14〕	ND	ND
Sr-90（Approx. 29 years）	Under analysis	-	0.36 〔6/26〕	3.5 〔6/20〕	Under analysis	Under analysis	-	-	-	-	-	-

* The highest result announced in "Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection" or the other handouts is provided.
  As for "1F, North side of Unit 1-4 water intake channel", the data is obtained since January 14, 2013. For the other locations, the data is obtained since June 14.
* "ND" indicates that the measurement result is below the detection limit.
* Date of sampling is provided in parentheses.
* "-" indicates that the measurement was out of range.