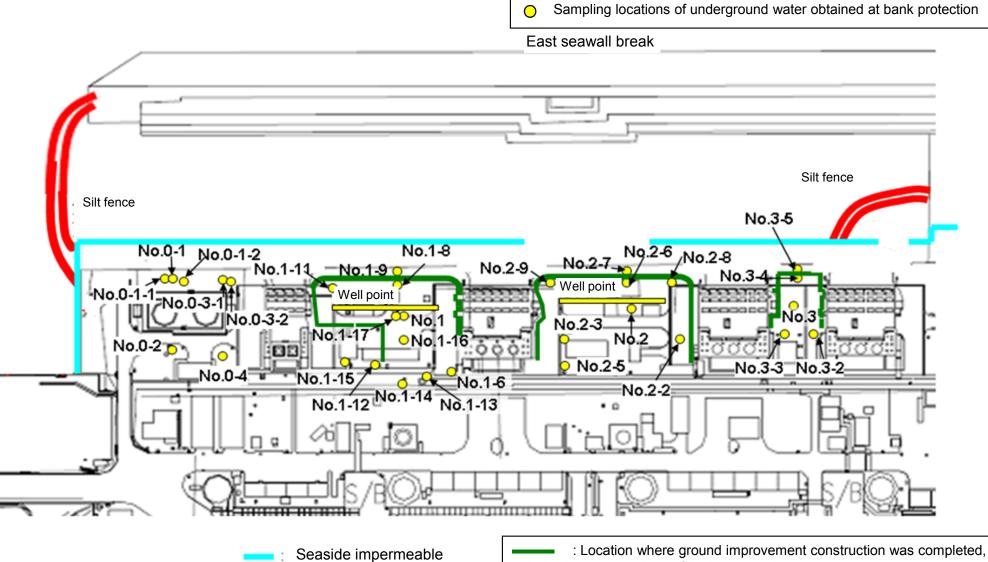
Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)



or being implemented (as of April 18, 2014)

Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (1/2) Underground Water Obtained at Bank Protection

															Unit: Bq/	L (exclude chloride
		Underground water observation hole No.0-1	Underground water observation hole No.0-1-2	Underground water observation hole No.0-2	Underground water observation hole No.0-3-1	Underground water observation hole No.0-3-2	Underground water observation hole No.0-4	Underground water observation hole No.1	Underground water observation hole No.1-6	Underground water observation hole No.1-8	Underground water observation hole No.1-9	Underground water observation hole No.1-11	Underground water observation hole No.1-12	Underground water observation hole No.1-14	Underground water observation hole No.1-16	Underground water observation hole No.1-17
	Date of sampling	/	/	/ /	1 /	/	/	May 12, 2014	May 12, 2014	May 12, 2014	May 15, 2014	May 12, 2014	May 12, 2014	May 12, 2014	May 12, 2014	May 12, 2014
	Time of sampling	/	/	/	/	/	/	10:17 AM	10:54 AM	10:36 AM	6:49 AM	9:55 AM	9:33 AM	9:50 AM	9:55 AM	9:27 AM
	Chloride (unit: ppm)			/	/	/	/	-	-	-	150	-	_	-	-	-
Cs	s-134 (Approx. 2 years)		/	/	/	/		ND(0.56)	6,100	24	5.9	ND(0.38)	2.8	13	ND(2.1)	ND(0.58)
Cs	-137 (Approx.30 years)		/	/	/	/	/	0.68	16,000	66	17	1.2	7.6	35	1.5	0.60
	Mn-54 (Approx. 310 days)		/	/	/	/	/	ND	140	2.8	ND	ND	ND	ND	ND	ND
The	Co-60 (Approx. 5 years)		/	/	/	/	/	ND	510	ND	ND	ND	ND	ND	ND	0.45
other y	Ru-106 (Approx. 370 days)		/	/		/	/	ND	ND	ND	ND	ND	ND	ND	ND	3.3
	Sb-125 (Approx. 3 years)							0.90	ND	ND	ND	ND	ND	ND	13	1.2
	Gross β	1/	/	/	/			160	710,000	31,000	37	32	240	2,900	1,100,000	5,800
F	I-3 (Approx. 12 years)	1/	/	/	/	/	/	140,000	12,000	19,000	ND(120)	10,000	39,000	21,000	9,000	8,500
Sr	-90 (Approx. 29 years)	/	/	/	/	/	/	140	690,000 * 1	28,000	15	11	52	2,200 * 1	850,000	5,600 * 1
		Groundwater pumped up from the well point (between Unit 1 and 2)	Underground water observation hole No.2	Underground water observation hole No.2-2*	Underground water observation hole No.2-3	Underground water observation hole No.2-5	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Underground water observation hole No.2-8	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-2	Underground water observation hole No.3-3	Underground water observation hole No.3-4	Underground water observation hole No.3-5	
	Date of sampling				i i	May 7, 2014		/		/	,	/			May 28, 2014	1

		(between Unit 1 and 2)	hole No.2	hole No.2-2*	hole No.2-3	hole No.2-5	hole No.2-6	hole No.2-7	hole No.2-8	(between Unit 2 and 3)	hole No.3	hole No.3-2	hole No.3-3	hole No.3-4	hole No.3-5
	Date of sampling	/	/	/	/	May 7, 2014	/	/	/ /	/	/		1		May 28, 2014
	Time of sampling	/	/	/	/	9:20 AM	/	/	/	/	/	/	/		10:30 AM
	Chloride (unit: ppm)	/	/	/	/	-	/	/	/	/	/				1,900
Cs	-134 (Approx. 2 years)	/	/	/	/	41	/	/	/	/	/	/			17
Cs	-137 (Approx.30 years)	/	/	/	/	110	/	/	/	/	/				47
	Mn-54 (Approx. 310 days)	/	/	/	/	ND	/	/	/	/	/				ND
The	Co-60 (Approx. 5 years)	/	/	/	/	ND	/	/							ND
other y	Ru-106 (Approx. 370 days)				/	ND	/	/		/					ND
	Sb-125 (Approx. 3 years)	/			/	74	/	/							ND
	Gross β			/	/	61,000	/	/	/		/				350
н	I-3 (Approx. 12 years)	/	/	/	/	3,400	/	/	/	/	/	/	/	/	ND(110)
Sr-	-90 (Approx. 29 years)	/	/	/	/	34,000	/	/	/	/	/	/	/	/	200

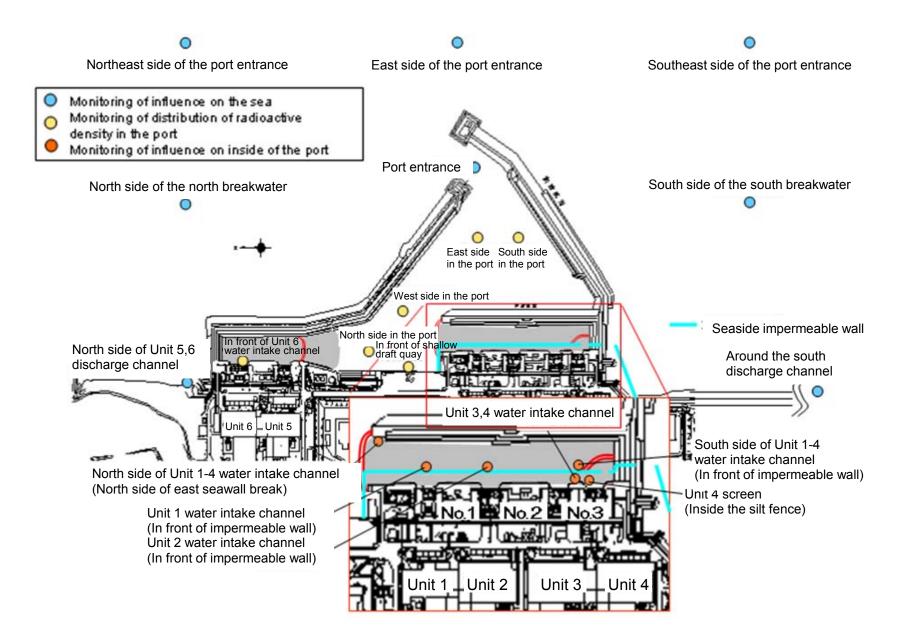
* Data announced this time is provided in a thick-frame. The other data was announced on May 8, 12, 13, 16, 19, 29 and June 2.

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

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

* 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.

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



Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (2/2) 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	(north side of	1F, In front of Unit 1 discharge channel (in front of impermeable wall)	water intake	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Between the water intake channel of Unit 2 and Unit 3	1F, Unit 3 Screen (Inside the Silt Fence)	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	Density Limit Specified by the Reactor Regulation *	WHO Guidelines for drinking-water quality
Date of Sampling	May 12, 2014	/	May 12, 2014	May 12, 2014	/	May 15, 2014	May 15, 2014	May 12, 2014	May 12, 2014	May 12, 2014	May 12, 2014	/		
Time of sampling	6:17 AM	/	6:33 AM	7:07 AM		6:44 AM	6:44 AM	6:42 AM	6:47 AM	6:52 AM	6:50 AM			
Cs-134(Approx. 2 years)	ND(0.77)	/	ND(2.3)	12		ND(2.8)	18	33	35	37	30		60	10
Cs-137(Approx.30 years)	0.97		5.3	30		15	43	96	95	98	77		90	10
Gross β	11		ND(17)	170		1,600	840	640	490	490	320			
H-3 (Approx. 12 years)	8.7		7.2	290	/	4,100	2,600	1,900	1,400	1,100	760		60,000	10,000
Sr-90 (Approx. 29 years)	1.2	/	0.80	100	/	1,400 * 1	820 * 1	520 * 1	410 * 1	410 * 1	250 * 1	/	30	10

													Unit: Bq/L
	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	Northeast side of the port entrance	East side of the port entrance	Southeast side of the port entrance	South side of the south breakwater	Density Limit Specified by the Reactor Regulation	WHO Guidelines for drinking-water quality
Date of Sampling	May 12, 2014	May 12, 2014		/									
Time of sampling	5:30 AM	9:50 AM	/										
Cs-134(Approx. 2 years)	ND(0.53)	ND(1.4)										60	10
Cs-137(Approx.30 years)	ND(0.69)	ND(1.1)										90	10
Gross β	13	ND(17)											
H-3 (Approx. 12 years)	4.3	2.8										60,000	10,000
Sr-90 (Approx. 29 years)	0.018	0.75	/	/	\bigvee							30	10

* Data announced this time is provided in a thick-frame. The other data was announced on May 13, 16, 19, and 20.

The data of Sr-90 of "1F, discharge channel of Unit 5 and 6" and "1F, Around the south discharge channel" in the broken-line frame was announced on June 21, in "Nuclides Analysis Result of the Sub-drain of Fukushima Daiichi NPS".

The data of Sr-90 of "1F, North side of Unit 1-4 water intake channel (north side of East Seawall Break)" in the broken-line frame was announced on September 4, in "Radioactivity Density of the Seawater in the Port of Fukushima Daiichi NPS".

* "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.

* Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2 [the amount is converted from Bq/cm³ to Bq/L]).

* 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.

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

		observa	ndwater ation hole a.0-1	Groun observa No.0	tion hole		dwater tion hole)-1-2	Groun observa No.	tion hole	observa	idwater ition hole 0-3-1	observa	idwater ition hole 0-3-2	Groun observa No.	tion hole	observa	idwater ition hole o.1	Groun observa No.	tion hole	Ground observat No.	tion hole	Groun observat No.	tion hole	observa	dwater tion hole .1-4 [*]		dwater tion hole 1-5 [°]	observa	ndwater ation hole 9.1-6
(Cs-134 (Approx. 2 years)	29	<5/25>	ND		0.61	<3/2>	0.61	[10/13]	0.64	<4/6>	0.86	<9/8>	0.70	<6/29>	13	[8/29]	1.9	[7/8]	11,000	[7/9]	10	[9/2]	1.5	[7/8]	310	[8/5]	12,000	<8/12>
C	Cs-137 (Approx.30 years)	78	<5/25>	ND		1.5	<3/2>	2.2	<1/12>	1.1	<4/6>	2.3	<9/8>	1.6	<6/29>	31	[8/29]	3.6	[7/8]	22,000	[7/9]	24	[9/2]	3.6	[7/8]	650	[8/5]	34,000	<8/12>
	Ru-106 (Approx. 370 days)	ND		ND		ND		ND		ND		ND		ND		26	[5/24]	7.9	[7/8]	160	[8/15]	17	[7/22] [8/8]	3.1	[8/8]	ND		ND	
The	Mn-54 (Approx. 310 days)	ND		ND		ND		ND		ND		0.64	<2/20>	ND		ND		1.0	[7/5]	62	[7/5]	ND		ND		ND		320	<2/13> <2/17>
other	Co-60 (Approx. 5 years)	ND		ND		ND		ND		ND		ND		ND		0.50	[7/19]	ND		3.1	[7/8]	ND		ND		ND		830	<2/20>
	Sb-125 (Approx. 3 years)	ND		ND		ND		ND		ND		ND		ND		1.7	[7/11]	ND		250	[7/15]	1.4	[7/12] [8/26]	ND		12	[8/8]	34	<5/19>
	Gross β	300	[8/29] <5/18>	21	[12/7]	24	<6/22>	87	[10/13]	ND		67 ^{*1}	[12/11]	44	<6/22>	1,900	[5/24]	4,400	[7/8]	9,300,000	[7/8]	160,000	[8/12] [8/15]	380	[8/19]	56,000	[8/5]	1,400,000) <8/12>
	H-3 (Approx. 12 years)	45,000	[8/29]	18,000	[12/7]	74,000	[12/15] <1/19>	6,800	<2/16>	ND		76,000	<2/6>	56,000	<2/23>	500,000	[5/24] [6/7]	630,000	[7/8]	430,000	[9/16]	290,000	[7/12]	98,000	[7/11]	72,000	[8/15]	*: 110,000	
	Sr-90(Approx. 29 years)	140	[8/8]	7.9	[12/7]	2.6	[11/10]	0.73	[9/2]	1.5	[11/20]	2.3	[12/6]	ND(0.83)	[10/27]	1,300	[8/22]	2,300	[6/28]	5,000,000	[7/5]	130,000	[8/8]	200	[7/8]	5,100	[8/22]	590,000	<2/13>
																													Unit: Bq/
		observa	ndwater ition hole i.1-8	Groun observa No.	tion hole	Groun observa No.	tion hole	Groun observa No.		observa	idwater ition hole 1-12	observa	ndwater ation hole 1-13	Groun observa No.	tion hole 1-14	observa	idwater ition hole 1-15		dwater tion hole 1-16	Groun observat No. ²	tion hole	the we (betwee	up from Il point	observa	dwater tion hole o.2	Groun observa No.		observa	ndwater ition hole i.2-2
(Cs-134 (Approx. 2 years)	47	[11/25]	170	[9/3]	-		1.1	<1/13>	74	[10/21]	37,000	<2/13>	88 ^{*2}	<2/27>	ND		30	<7/28>	1.4	<7/7>	110	[9/23]	0.88	<2/26>	0.66	[9/1]	15	<2/12>
C	Cs-137 (Approx.30 years)	110	[11/25]	380	[9/3]	-		3.4	<4/28>	170	[10/21]	93,000	<2/13>	230 *2	<2/27>	0.88	<7/10>	86	<7/28>	2.8	<4/28> <9/8>	250	[9/23]	2.5	<2/26>	1.1	[8/29] [9/1]	38	<2/12>
	Ru-106 (Approx. 370 days)	ND		ND		-		ND		5.4	[10/28]	ND		ND		ND		9.2	[10/28]	5.5	<4/21> <5/1>	25	[9/2]	ND		ND		ND	
The	Mn-54 (Approx. 310 days)	12	<2/3>	ND		-		ND		ND		ND		2.1	<9/8>	ND		11	<8/25>	ND		8.5	<4/28>	ND		ND		ND	
other	Co-60 (Approx. 5 years)	1.3	<2/3>	ND		-		ND		0.51	[10/24]	ND		0.44	<5/29>	ND		0.9	[11/7]	0.61	[11/25]	0.61	<6/9>	ND		ND		ND	
	Sb-125 (Approx. 3 years)	ND		ND		-		ND		61	[10/21]	ND		ND		ND		24	<6/16>	2.1	[11/25]	ND		ND		ND		ND	
	Gross β	59,000	<2/3>		[11/17]	78 *2		2,300	[12/26]	1,100	<5/5>	260,000	<2/12> <2/13>	22,000	<8/14>	110	<7/10>	3,100,000	<1/20> <1/30> <2/3>	620,000	<9/8>	1,900,000	[9/23]	1,700	[7/8]	380	[7/29]	600	<4/16>
	H-3 (Approx. 12 years)	33,000	<6/2>	860 2	[11/14]	270,000 ²	<1/27>	85,000	[9/13]	440,000	[10/31]	88,000	<2/12>	23,000	<2/13>	74,000	<7/10>	43,000	[9/26]	32,000	<1/20>	460,000	[8/19]	1,000	<2/23>	440	[8/26]	660	<1/8>
	Sr-90(Approx. 29 years)	35,000	<2/17>	300	[10/3]	-		22	<1/9>	290	[10/21]	160,000	<2/12>	900	<4/14>	Under	analysis	2,700,000	<2/13>	4,000	<4/14>	-		54	[5/31]	5.9	[7/25]	320	[12/25]
		observa	ndwater ition hole .2-3	No	tion hole	Groun observa No.		Groun observa No	tion hole	observa	idwater ition hole .2-8	observa	ndwater Ition hole 9.2-9	Groun pumped the we (betwee and	up from Il point n Unit 2	observa	idwater ition hole o.3	Groun observa No.	tion hole 3-1	Ground observat No.	tion hole		dwater tion hole .3-3	observa	dwater tion hole .3-4	Groun observa No.			
(Cs-134 (Approx. 2 years)	2.2	<2/26>	41	<5/7>	17	<3/11>	3.5	<2/23>	1.3	<7/20>	ND		2.2	<9/7>	3.5	[7/25]	1.2	[7/25] [8/8]	23	<8/27>	180	<7/2>	5.1	<7/23>	100	<7/30>		
C	cs-137 (Approx.30 years)	5.5	<2/26>	110	<5/7>	50	<3/11>	9.0	<2/23>	3.4	<7/20>	0.58 ^{*2}	<2/11>	5.7	<9/7>	5.9	[8/8]	2.6	[8/1]	68	<9/3>	500	<7/2>	16	<8/27>	310	<7/30>		
	Ru-106 (Approx. 370 days)	ND		ND		ND		ND		ND		6.5 ^{* 2}	<2/11>	ND		ND		ND		ND		ND		ND		-			
The	Mn-54 (Approx. 310 days)	0.29	[12/6]	0.95	<6/4>	ND		ND		ND		ND		ND		ND		ND		ND		ND		0.54	[10/30]	-			
other	Co-60 (Approx. 5 years)	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		-			
	Sb-125 (Approx. 3 years)	ND		74	<5/7>	ND		ND		ND		ND		ND		1.6	<1/1>	ND		ND		ND		ND		-			
	Gross β	1,500	[12/6] <1/8>	150,000	<2/12>	3,200	[12/5]	1,300	<6/20>	5,800	<7/23>	1,700	<2/7>	240,000	[12/12]	1,400	(7/11)	180	[8/1]	3,100	<8/20> <8/28>	8900	<7/2>	46	<8/13>	510	<7/16>		
	H-3 (Approx. 12 years)	1,700	[12/6]	7,900	<4/9>	1,900	<8/10>	1,100	<1/19>	1,700	<8/6> <8/13>	13,000	<2/7> <2/11>	8,800	<8/13>	3,200	[Dec. 12, 2012] [Dec. 12,	460	[8/1]	3,700	<7/9>	8,000	<5/7>	170	[9/18]	170	<1/8>		
	Sr-90(Approx. 29 years)	1,200	[12/6]	Under a		Under a	,	ND(1.4) those pre	[11/21]	3,900	<3/30>	1,200 [°]	<2/11>	-		8.3	2012]	4.4	[7/23]	2000	<4/18>	3,600	<4/30>	ND		-			

Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced.
*1 Analysis result of pumped water.
*2 The results are for a reference, since the water was highly turbid. (γ and Gross β were measured after filtration.)

* "ND" indicates that the measurement result is below the detection limit.

* Date of sampling is provided in parentheses. (): 2013, < >: 2014 * "*" is provided next to the name of the holes where the sampling could not be performed due to the chemical injection of ground improvement.

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

	1F, North side of Unit 5,6 discharge channel		6 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 (north side of East Seawall Break)		1F, In front of Unit 1 discharge channel (in front of impermeable wall)		intake char and Unit	en the water nnel of Unit 1 2 (surface yer)	intake chan	en the water inel of Unit 1 (lower layer)	discharge front of in	nt of Unit 2 channel (in npermeable rall)	intake char	en the water nnel of Unit 2 Unit 3		3 Screen Silt Fence)	intake char	en the water inel of Unit 3 Unit 4		t 4 Screen e Silt Fence)
Cs-134(Approx. 2 years)	1.8	[6/21]	2.8	[12/2]	5.3	[8/5]	32	[10/11]	12	<6/23>	87	[10/10]	93	[10/10]	12	<9/8>	52	[12/21]	350	[7/15]	37	<5/12>	62	[9/16]
Cs-137(Approx.30 years)	4.5	<3/17>	5.8	[12/2]	8.6	[8/5]	73	[10/11]	33	<5/12>	200	[10/10]	200	[10/10]	40	<9/8>	110	〔10/11〕 〔12/21〕	770	[7/15]	98	<5/12>	140	[9/16]
Gross β	17	<1/6>	46	[8/19]	40	[7/3]	320	[8/12]	140	<5/5> <7/14> <8/18> <9/1>	1,900	<5/20>	1,500	<6/10>	160	<8/18>	1,000	<6/2>	1,000	(7/15)	660	<6/9>	610	<6/23>
H-3 (Approx. 12 years)	8.7	<5/12>	24	[8/19]	340	[6/26]	600	[8/18]	460	<8/18>	4,200	<5/27>	3,900	<6/10>	350	<8/18>	2,600	<6/2>	1,400	<5/12>	2,500	<6/23>	2,200	<7/21>
Sr-90 (Approx. 29 years)	4.7	[6/26]	-		7.2	[6/26]	220	[8/19]	_		480	[8/22]	290	[10/20]	-		400	<4/14>	130	[6/21]	190	[9/23]	230	<4/14>

Unit: Bq/L

	4 water in (In front of	1F, South side of Unit 1- 4 water intake channel (In front of impermeable wall)		1F, Around the south discharge channel		t entrance	1F, East side in the por		1F, West s	ide in the port	1F, North s	ide in the por	1F, South s	ide in the por		of the north kwater		t side of the entrance		of the south kwater		t side of the eakwater		e of the south kwater
Cs-134(Approx. 2 years)	15	<4/14> <5/19>	1.8	<6/9>	3.3	[12/24]	3.3	[10/17]	4.4	[12/24]	5.0	[12/2]	3.5	[10/17]	ND		ND		ND		ND		ND	
Cs-137(Approx.30 years)	45	<5/19>	4.9	<6/9>	7.3	[10/11]	9.0	[10/17]	10	[12/24]	8.4	[12/2]	7.8	[10/17]	ND		ND		1.6	[10/18]	ND		ND	
Gross ß	380	<3/10>	16	<6/9> <8/4>	69	[8/19]	74	[8/19]	60	[7/4]	69	[8/19]	79	[8/19]	ND		ND		ND		ND		ND	
H-3 (Approx. 12 years)	810	<8/4>	5.6	<5/19>	68	[8/19]	67	[8/19]	59	[8/19]	52	[8/19]	60	[8/19]	4.7	[8/14]	1.7	<4/23>	6.4	[10/8]	1.8	<5/29>	2.8	<4/23>
Sr-90 (Approx. 29 years)	-		0.29	[6/26]	49	[8/19]	-		-		-		-		_		-		-		_		-	

* 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.

• Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced.

*3 The results of No. 1-19 of January 9 are for a reference, since the water was highly turbid. (Gross β were measured after filtration. γ wes not measured.

* "ND" indicates that the measurement result is below the detection limit.

 * Date of sampling is provided in parentheses. (): 2013, < >: 2014

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

[Reference] Standard values

Unit: Bq/L Cs-134 Cs-137 H-3 Sr-90 Density Limit Specified by the Rule for the Installation, Operation, etc. of Commercial Nuclear Power Reactors (the 60 90 60,000 30 density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2) WHO Guidelines for drinking-water quality 10 10 10,000 10

Unit: Bq/L