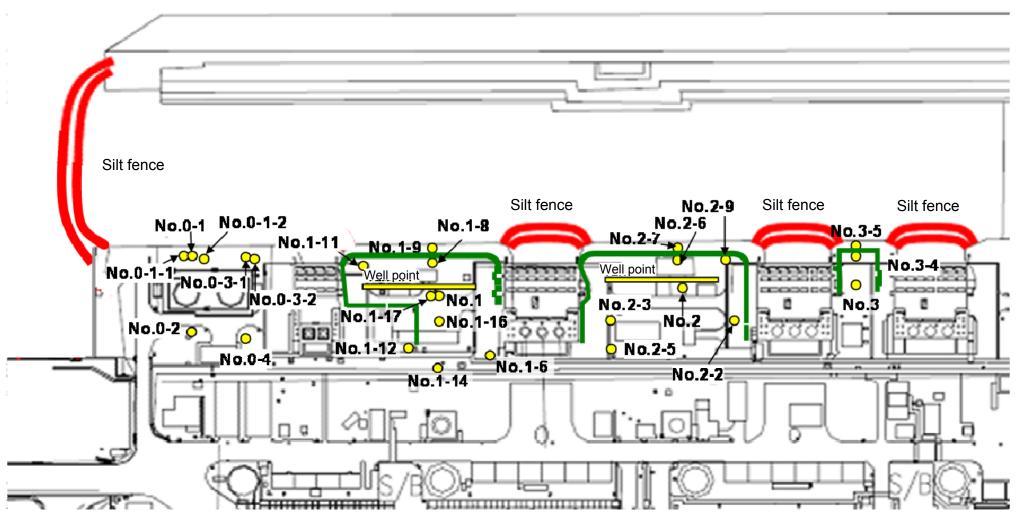
Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)

O Sampling locations of underground water obtained at bank

East seawall break



: Location where ground improvement construction was completed. or being implemented (as of January 31, 2014)

# 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 (exclude chloride)

		Underground water observation hole No.0-1	Underground water observation hole No.0-1-1	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.0-4				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
	Date of sampling	/	/	/	/	/	/	/	/	/	Feb 6, 2014	/	/	1 /	/
	Time of sampling										7:28 AM				
	Chloride (unit: ppm)										290				
С	Ss-134 (Approx. 2 years)										14				
Cs	s-137 (Approx.30 years)										38				
The															
other y															
	Gross β										93				
ŀ	H-3 (Approx. 12 years)										460				
Sı	r-90 (Approx. 29 years)	/						/		/	-		/	/	V

		Underground water observation hole No.1-17	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	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3	Underground water observation hole No.3-4	Underground water observation hole No.3-5
	Date of sampling	/	/	Feb 5, 2014	Feb 5, 2014	Feb 5, 2014	/	Feb 6, 2014	Feb 7, 2014	Feb 5, 2014	Feb 5, 2014	Feb 5, 2014	Feb 5, 2014
	Time of sampling			9:41 AM	10:51 AM	9:09 AM		9:40 AM	10:29 AM	10:30 AM	10:37 AM	10:15 AM	10:10 AM
	Chloride (unit: ppm)			-	-	-		-	580	-	-	-	180
С	Cs-134 (Approx. 2 years)			ND(0.34)	13	ND(0.46)		ND(0.38)	ND(0.46)	0.87	ND(0.56)	1.2	32
C	Ss-137 (Approx.30 years)			ND(0.46)	30	ND(0.54)		0.70	1.2	1.2	1.0	3.6	82
The													
other y													
	Gross β			350	450	1,200		1,800	160	130,000	ND(18)	ND(18)	22
I	H-3 (Approx. 12 years)			830	530	1,100		970	900	4,900	300	ND(120)	ND(120)
S	6r-90 (Approx. 29 years)	/		-	-	-		-	-	-	-	-	-

<sup>\*</sup> Data announced this time is provided in a thick-frame. The other data was announced on February 6, 7 and 8.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

<sup>\* &</sup>quot;-" 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: Bg/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.1	Underground water observation hole No.1-6		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.1-16
	Date of sampling	Feb 9, 2014	41,679	Feb 9, 2014	Feb 9, 2014	/	Feb 9, 2014	/	1	/	Feb 9, 2014	/	/	1 /	/
	Time of sampling	Not sampled	Not sampled	Not sampled	Not sampled		Not sampled				Not sampled				
	Chloride (unit: ppm)														
	Cs-134 (Approx. 2 years)														
	Cs-137 (Approx.30 years)														
The															
other	Υ														
	Gross β														
	H-3 (Approx. 12 years)									/		/	/		
	Sr-90 (Approx. 29 years)									V		/	/		

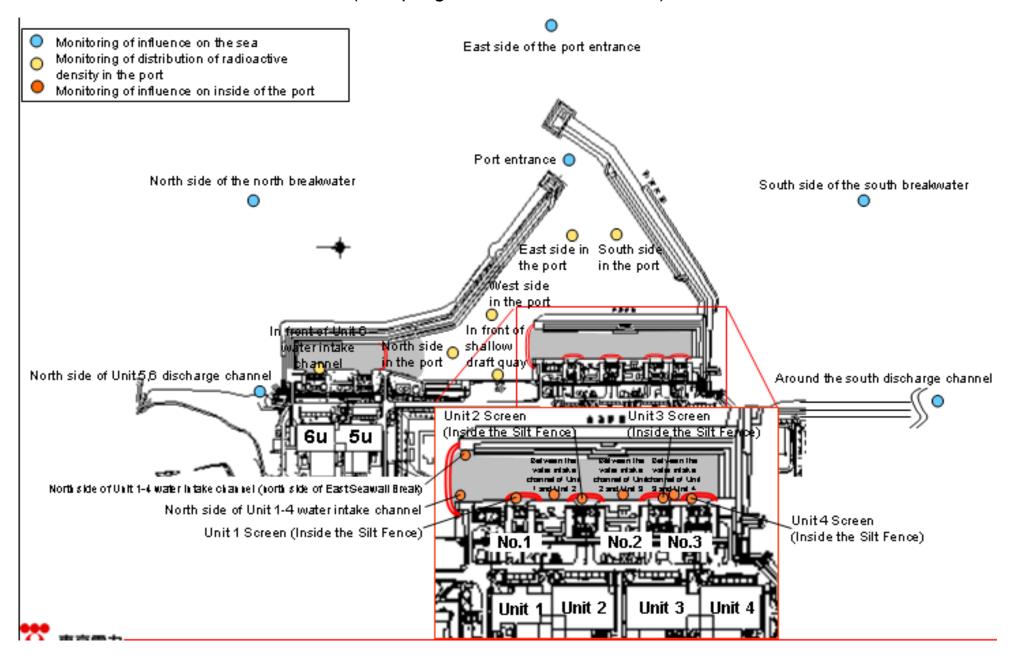
		Underground water observation hole No.1-17	Groundwater pumped up from the well point (between Unit 1 and 2)	Underground water observation hole No.2	Underground water observation hole No.2-2	Underground water observation hole No.2-3	Underground water observation hole No.2-5	Underground water observation hole No.2-6	Underground water observation hole No.2-7	Groundwater pumped up from the well point (between Unit 2 and 3)	Underground water observation hole No.3*	Underground water observation hole No.3-4	Underground water observation hole No.3-5
	Date of sampling	/	/	Feb 9, 2014	Feb 9, 2014	Feb 9, 2014	Feb 9, 2014	/	Feb 9, 2014	Feb 9, 2014	/	/	
	Time of sampling			Not sampled	Not sampled	Not sampled	Not sampled		Not sampled	Not sampled			
	Chloride (unit: ppm)												
С	Cs-134 (Approx. 2 years)												
С	Cs-137 (Approx.30 years)												
The													
other y	,												
	Gross β												
	H-3 (Approx. 12 years)							/					
S	Sr-90 (Approx. 29 years)	/										/	

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

The sampling could not be performed due to the snow.

<sup>\* &</sup>quot;-" indicates that the measurement was out of range.

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 (3/4) Seawater

Unit: Bq/L

11-14 D-/I

	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)	water intake channel of Unit 1	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen	1F, Between the water intake channel of Unit 2 and Unit 3	Screen	1F, Between the water intake channel of Unit 3 and Unit 4	Specified by the	WHO Guideline s for drinking- water quality
Date of Sampling		/	/	Feb 6, 2014	/	/	Feb 6, 2014	Feb 6, 2014			/	/		
Time of sampling				7:39 AM	/	/	7:25 AM	7:25 AM		/				
Cs-134(Approx. 2 years)				14		/	17	15			/		60	10
Cs-137(Approx.30 years)				34	/		41	36					90	10
Gross β		/		380			350	210						
H-3 (Approx. 12 years)				1,100		/	830	450		/			60,000	10,000
Sr-90 (Approx. 29 years)	V	/	/	-	/	/	-	-	/	V	/	V	30	10

	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		North side of the north breakwater	of the nort	East side of the port entrance	Southeast side of the port entrance	South side of the south breakwater	Density Limit	s for drinking-
Date of Sampling	/	/	/	/	/	/	/	  /	/	/	/	/	n *	quality
Time of sampling	/			/	/	/	/	/						
Cs-134(Approx. 2 years)							/			/			60	10
Cs-137(Approx.30 years)				/	/					/			90	10
Gross β			/							/				
H-3 (Approx. 12 years)	/									/			60,000	10,000
Sr-90 (Approx. 29 years)	/	/	/	/	/	/	/	/	/	/	/	/	30	10

<sup>\*</sup> Data announced this time is provided in a thick-frame. The other data was announced on February 7.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

<sup>\* &</sup>quot;-" indicates that the measurement was out of range.

<sup>\*</sup> 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/cm to Bq/L]).

## 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)	water intake	1F, Between the water intake channel of Unit 1 and Unit 2 (lower layer)	1F, Unit 2 Screen	1F, Between the water intake channel of Unit 2 and Unit 3	Screen	1F, Between the water intake channel of Unit 3 and Unit 4	Specified by the	WHO Guideline s for drinking- water quality
Date of Sampling			/	Feb 9, 2014		/	Feb 9, 2014	Feb 9, 2014	/	/	/			
Time of sampling				Not sampled			Not sampled	Not sampled						
Cs-134(Approx. 2 years)													60	10
Cs-137(Approx.30 years)													90	10
Gross β														
H-3 (Approx. 12 years)					/								60,000	10,000
Sr-90 (Approx. 29 years)			/		/				/	/		/	30	10

														Jnit: Bq/L
	1F, Unit 4 Screen (Inside the Silt Fence)	1F, Around the south discharge channel	I 1E POR	1F, East side in the port	1F, West side in the port	1F, North 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 Regulatio n *	s tor drinking-
Date of Sampling	/		/	/	/			/		/	/	/		
Time of sampling				/		/		/						
Cs-134(Approx. 2 years)	/		/	/		/					/	/	60	10
Cs-137(Approx.30 years)			/	/	/	/		/		/		/	90	10
Gross β														
H-3 (Approx. 12 years)	/		/		/	/					/		60,000	10,000
Sr-90 (Approx. 29 years)	/	/	/	/	/	/	/	/			/	/	30	10

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

The sampling could not be performed due to the snow.

<sup>\* &</sup>quot;-" indicates that the measurement was out of range.

<sup>\*</sup> 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/cm to Bq/L]).

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

																											Unit: Bq/L
		observa	dwater ition hole .0-1	observa	ndwater ation hole 0-1-1	observa	ndwater ation hole 0-1-2	observa	ndwater ation hole o.0-2	observ	ndwater ation hole .0-3-1	observa	ndwater ation hole 0-3-2	observa	dwater tion hole .0-4	Groun observa No	tion hole	Ground observati No.	tion hole	Ground observat No.		Ground observat No.	ion hole	Groun observa No.	tion hole	Ground observati No.	tion hole
С	s-134 (Approx. 2 years)	7.6	[12/15]	ND		ND		0.61	[10/13]	0.44	[11/24]	0.82	<1/14>	ND		13	[8/29]	1.9	[7/8]	11,000	[7/9]	10	[9/2]	1.5	[7/8]	310	[8/5]
C	s-137 (Approx.30 years)	19 *3	<1/26>	0.58	[12/7]	0.51	[11/17]	2.2	<1/12>	0.86	[11/20]	2.1	<1/14>	1.4	<1/12>	31	[8/29]	3.6	[7/8]	22,000	[7/9]	24	[9/2]	3.6	[7/8]	650	[8/5]
	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	
The	Mn-54 (Approx. 310 days)	ND		ND		ND		ND		ND		0.62	<2/3>	ND		ND		1.0	[7/5]	62	[7/5]	ND		ND		ND	
other y	Co-60 (Approx. 5 years)	ND		ND		ND		ND		ND		ND		ND		0.50	[7/19]	ND		3.1	[7/8]	ND		ND		ND	
	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]
	Gross β	300	[8/22]	21	[12/7]	21	[11/10]	87	[10/13]	ND		67 <sup>*2</sup>	[12/11]	29	[12/29]	1,900	[5/24]	4,400	[7/8]	900,000	(7/5) (7/9)	160,000	(8/12) (8/15)	380	[8/19]	56,000	[8/5]
	H-3 (Approx. 12 years)	45,000	[8/29]	18,000	[12/7]	74,000	[12/15] <1/19>	6,400	<1/26>	ND		73,000	<1/14> <1/16> <1/23> <1/27> <2/3>	48,000	<1/26> <2/3>	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)
5	r-90(Approx. 29 years)	140	[8/8]	Under analysis		Under analysis		0.73	[9/2]	Under analysis		Under analysis		Under analysis		1,300	[8/22]	2,300	[6/28]	5,000,000	[7/5]	130,000	[8/8]	200	[7/8]	5,100	[8/22]

		Ground observati No.1	on hole	observa	ndwater ation hole 0.1-8	observa	dwater tion hole .1-9	Ground observat No.1	ion hole	observa	dwater tion hole 1-11	observa	dwater tion hole 1-12	Groun observa No.		observa	dwater tion hole 1-16		dwater tion hole 1-17	Ground pumped the wel (between and	up from Il point n Unit 1
С	s-134 (Approx. 2 years)	-		47	[11/25]	170	[9/3]	-		1.1	<1/13>	74	[10/21]	1.2 *2	[11/14]	3.1 *2	[12/13]	1.2	[12/5]	110	[9/23]
C	s-137 (Approx.30 years)	-		110	[11/25]	380	[9/3]	-		2.8	<1/13>	170	[10/21]	2.3	[11/21]	3.4	[10/10]	0.66	[12/12]	250	[9/23]
	Ru-106 (Approx. 370 days)	-		ND		ND		-		ND		5.4	[10/28]	ND		9.2	[10/28]	4.1	[12/12]	25	[9/2]
The	Mn-54 (Approx. 310 days)	-		12	<2/3>	ND		-		ND		ND		ND		ND		ND		0.92	<1/27> <2/3>
other y	Co-60 (Approx. 5 years)	-		1.3	<2/3>	ND		-		ND		0.51	[10/24]	ND		0.9	[11/7]	0.61	[11/25]	ND	
	Sb-125 (Approx. 3 years)	-		ND		ND		-		ND		61	[10/21]	ND		11	[12/5]	2.1	[11/25]	ND	
	Gross β	*4	<2/6>	59,000	<2/3>	2,100*4	[11/17]	78 <sup>*4</sup>	<1/27>	2,300	[12/26]	730	[10/21]	440	<1/30>	3,100,000	<1/20> <1/30> <2/3>	130	[12/2] [12/23]	700,000	[9/23]
1	H-3 (Approx. 12 years)	110,000	<2/6>	12,000	<1/6> <2/3>	860	4 [11/14]	270,000	<1/27>	85,000	[9/13]	440,000	[10/31]	19,000	<2/3>	43,000	[9/26]	32,000	<1/20>	460,000	[8/19]
8	r-90(Approx. 29 years)	-		1,300	(9/16)	170	[9/3]	-		17	[9/13]	Under analysis		Under analysis		Under analysis		Under analysis		-	

																										Unit: Bq/L
		observa	ndwater ation hole o.2	observa	ndwater ation hole 0.2-1	observa	dwater tion hole 2-2	observa	dwater tion hole .2-3	observa	dwater tion hole .2-5	observa	ndwater ation hole a.2-6	observa	dwater tion hole .2-7	Groundwater observation hole No.2-9	pumpe the v (betw	undwater ed up from well point een Unit 2 and 3)	observ	ndwater ation hole lo.3	observa	ndwater ation hole .3-1	observa	ndwater ation hole o.3-4	observa	ndwater ation hole 0.3-5
С	s-134 (Approx. 2 years)	0.50	[7/9]	0.66	[9/1]	14	<2/2>	0.84	<1/5>	13	<1/8>	0.56	[10/30]	1.5	<1/12>	÷	1.1	[12/12]	3.5	[7/25]	1.2	(7/25) (8/8)	1.9	<1/8>	64	<1/15>
C	s-137 (Approx.30 years)	1.2	(7/11) (8/1)	1.1	(8/29) (9/1)	34	<1/29>	2.6	<1/5>	30	<1/8>	0.71	<1/30>	3.6	<1/12>	=	2.4	[12/7]	5.9	[8/8]	2.6	[8/1]	4.3	[11/27]	170	<1/15>
	Ru-106 (Approx. 370 days)	ND		ND		ND		ND		ND		ND		ND		=	ND		ND		ND		ND		-	
The	Mn-54 (Approx. 310 days)	ND		ND		ND		0.29	[12/6]	0.94	<1/8>	ND		ND		=	ND		ND		ND		0.54	[10/30]	-	
other y	Co-60 (Approx. 5 years)	ND		ND		ND		ND		ND		ND		ND		=	ND		ND		ND		ND		-	
	Sb-125 (Approx. 3 years)	ND		ND		ND		ND		26 *1	[9/29]	ND		ND		-	ND		1.6	<1/1>	ND		ND		-	
	Gross β	1,700	[7/8]	380	[7/29]	540	<1/29>	1,500	[12/6]	46,000 *	1 [9/29]	3,200	[12/5]	270	[12/20]	1,700 *4 <2/7>	240,000	(12/12)	1,400	[7/11]	180	[8/1]	ND		69	<1/29>
	H-3 (Approx. 12 years)	870	[12/8]	440	[8/26]	660	<1/8>	1,700	[12/6]	6,300	[12/4]	1,200	[11/24] [11/27]	1,100	<1/17>	*4 13,000 <2/7>	5,100	[12/6]	3,200	(2012/12/ 12)	460	[8/1]	170	[9/18]	170	<1/8>
	ir-90(Approx. 29 years)	54	[5/31]	5.9	[7/25]	Under analysis		Under analysis		Under analysis		Under analysis		Under analysis		-	-		8.3	(2012/12/ 12)	4.4	[7/23]	ND		-	

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

1 The analysis result of No.2-5 obtained on September 29 is the reference value, since we could not sample groundwater by a regular procedure.

2 Analysis result of pumped water.

3 The results are for a reference, since the water was highly turbid. (γ and Gross β were measured after filtration.)

4 The results are for a reference, since the water was highly turbid. (γ and Gross β were measured after filtration. If filtration takes a long time, γ will not be analyzed.)

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit.

<sup>\*</sup> 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)

Unit: Bq/L

		side of Unit 5,6 rge channel		ont of Unit 6 take channel		t of shallow quay		de of Unit 1-4 ake channel	water into	ide of Unit 1-4 ake channel ide of East all Break)	1F, Uni	t 1 Screen e Silt Fence)	intake cha	en the water nnel of Unit 1 surface layer	intake cha	een the water innel of Unit 1 ? (lower layer)		2 Screen e Silt Fence)	intake char	en the water nnel of Unit 2 Unit 3		3 Screen e Silt Fence)	intake cha	en the water nnel of Unit 3 Unit 4
Cs-134(Approx. 2 years)	1.8	[6/21]	2.8	[12/2]	5.3	[8/5]	89	[10/10]	32	[10/11]	73	[10/10]	87	[10/10]	93	[10/10]	370	[10/9]	52	[12/21]	350	[7/15]	28	[9/16]
Cs-137(Approx.30 years)	3.3	[6/26]	5.8	[12/2]	8.6	[8/5]	190	[10/10]	73	[10/11]	170	[10/10]	200	[10/10]	200	[10/10]	830	[10/9]	110	(10/11) (12/21)	770	(7/15)	53	[12/16]
Gross β	17	<1/6>	46	[8/19]	40	[7/3]	1,400	[11/7]	320	[8/12]	740	[10/28]	1,200	[12/8]	450	[7/16]	1,700	[10/9]	480	[10/7]	1,000	[7/15]	390	[8/12]
H-3 (Approx. 12 years)	8.6	[6/26]	24	[8/19]	340	[6/26]	4,800	[11/7]	510	[9/2]	2,800	[10/28]	2,800	[12/8]	1,600	[9/1]	2,100	[10/28]	1,200	[10/7]	410	[9/2]	650	[8/12]
Sr-90 (Approx. 29 years)	5.8	*1 [6/26]	-		7.4	(6/26)	720	[9/22]	220	[8/19]	480	[10/14]	480	[8/22]	290	[10/20]	430	[10/14]	340	[10/14]	120	[9/23]	190	[9/23]

Unit: Bq/L

	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 por		d 1F, South side in the port		North side of the north breakwater		Northeast side of the port entrance	he East side of the south breakwater		Southeast side of the north breakwater	South side of the south breakwater
Cs-134(Approx. 2 years)	62	(9/16)	ND		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)	140	[9/16]	3.0	[7/15]	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 β	360	[10/7]	15	<1/13>	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)	400	(8/12) (10/7)	1.9	[11/25]	68	[8/19]	67	[8/19]	59	[8/19]	52	[8/19]	60	[8/19]	4.7	(8/14)	ND	6.4	[10/8]	ND	ND
Sr-90 (Approx. 29 years)	130	[9/23]	0.36	*1 [6/26]	49	[8/19]	-		-		-		-		-		-	-		-	-

<sup>\*</sup> 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.

[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 density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2)	60	90	60,000	30
WHO Guidelines for drinking-water quality	10	10	10,000	10

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

<sup>\*1</sup> Since reanalysis is ongoing, the figures are just for a reference.

<sup>\* &</sup>quot;ND" indicates that the measurement result is below the detection limit.

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

<sup>\* &</sup>quot;-" indicates that the measurement was out of range.