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 Silt fence Silt fence Silt fence Silt fence No.0-1-2 No.0-1-1 No.1-8 0.3-5 No.2-7 No.1-9 o No.2-6 Well point No.0-3-2 No.2-3 No.B No.1-17 ONo.1-10 No.2 No.0-277 No.2-5 No.1-14 No.2-2

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

## 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.0-1-1	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.1-14	Underground wat observation hole No.1-16
	Date of sampling		/	/	/	/	/	/	/	/	/	/	1 /	/	
	Time of sampling														/
	Chloride (unit: ppm)														
С	s-134 (Approx. 2 years)														
С	s-137 (Approx.30 years)														
The															
other y															/
	Gross β														
	H-3 (Approx. 12 years)				/	/	/	/		/		/		/	/
S	r-90 (Approx. 29 years)	/			/	/	/	/	/	/	/	/	/	/	/

		Underground water observation hole No.1-16 (P)	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.2-6	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.3-5
	Date of sampling	/	/	/	/	/	/	/	/	Jan 29, 2014	/	1	/	1 /
	Time of sampling									9:56 AM				
	Chloride (unit: ppm)									800				
С	Cs-134 (Approx. 2 years)									ND(0.45)				
С	Ss-137 (Approx.30 years)									1.3				
The														
other y														
	Gross β									200				
	H-3 (Approx. 12 years)									990				
S	6r-90 (Approx. 29 years)	/	/	/	/			/	/	-			/	/

<sup>\*</sup> Data announced this time is provided in a thick-frame. The other data was announced on January 30.

<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 (2/2) Underground Water Obtained at Bank Protection

Unit: Bq/L (exclude chloride)

		Underground water observation hole No.0-1	Underground water observation hole No.0-1-1	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.1-8	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
Date of sam	npling	/	1	1 /	1	1	1	1	1	1 /	1 /	1 /	1	1 /	1
Time of san	npling												/		/
Chloride (uni	t: ppm)														
Cs-134 (Approx	. 2 years)		/												
Cs-137 (Approx	.30 years)														
The															
ther y															
Gross (	3														
H-3 (Approx. 1	2 years)														
Sr-90 (Approx.	29 years)	/		/		/	/	/	/	/	/	/	/	/	

		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	/	/	/	/	/	/	/	Jan 31, 2014	/	1	/	/
	Time of sampling								10:04 AM				
	Chloride (unit: ppm)								770				
C	s-134 (Approx. 2 years)								0.58				
Cs	s-137 (Approx.30 years)								1.1				
										/			
The													
other y													
	Gross β								180				
ŀ	H-3 (Approx. 12 years)	1/							Under analysis			/	
Sr	r-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.

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

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

	,	<u> </u>							`							,										ι	Jnit: Bq/L
		observa	ndwater ation hole .0-1	observa	idwater ition hole 0-1-1	observa	ndwater ation hole 0-1-2	observa	ndwater ation hole o.0-2	observa	ndwater ation hole 0-3-1	observa	ndwater ution hole 0-3-2	observa	dwater tion hole .0-4	Ground observat No	ion hole	Ground observat No.	ion hole	Ground observat No.	ion hole	Ground observat No.	ion hole	Groun observa No.	tion hole	Ground observat No.	tion hole
C	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]
Cs	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		0.56	<1/27>	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]
ŀ	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>	48,000	<1/26>	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]
S	r-90(Approx. 29 years)	Under analysis		Under analysis		Under analysis		0.73	[9/2]	Under analysis		Under analysis		Under analysis		1,300	[8/22]	Under analysis		Under analysis		Under analysis		Under analysis		5,100	[8/22]

Unit: Bq/L

		observa	ndwater ation hole 0.1-8	observa	idwater ition hole .1-9	Ground observati No.1	on hole	observa	dwater tion hole 1-11	observa	dwater tion hole 1-12	observa	dwater tion hole 1-14	Ground observati No.		Ground observati No.:	tion hole	Ground pumped the wel (between	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	[11/14]	3.1 *2	[12/13]	1.2	[12/5]	110	[9/23]
Cs	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)	9.7	[12/16]	ND		-		ND		ND		ND		ND		ND		0.92	<1/27>
other y	Co-60 (Approx. 5 years)	078	<1/27>	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	39,000	<1/6>	2,100	[11/17]	78 *4	<1/27>	2,300	[12/26]	730	[10/21]	440	<1/30>	3,100,000	<1/20> <1/30>	130	(12/2) (12/23)	700,000	[9/23]
ŀ	H-3 (Approx. 12 years)	12,000	<1/6>	860	[11/14]	270,000 *4	<1/27>	85,000	[9/13]	440,000	[10/31]	15,000	<1/27>	43,000	[9/26]	32,000	<1/20>	460,000	[8/19]
S	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
		Ground observati No	tion hole	Groun observa No.		Ground observat No.	ion hole		dwater tion hole 2-3	observa	dwater tion hole .2-5	Groun observa No.			dwater tion hole .2-7	pumped the we (between	ndwater d up from ell point en Unit 2 d 3)	observa	ndwater ation hole lo.3	Groun observa No.	tion hole	observa	ndwater ation hole 0.3-4	observa	ndwater ation hole 0.3-5
(	s-134 (Approx. 2 years)	0.50	[7/9]	0.66	[9/1]	13	<1/15> <1/29>	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>
(	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	Co-60 (Approx. 5 years)	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		1	
	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 *	[9/29]	3,200	[12/5]	270	[12/20]	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>	5,100	[12/6]	3,200	(2012/12/ 12)	460	[8/1]	170	[9/18]	170	<1/8>
	Sr-90(Approx. 29 years)	54	[5/31]	Under analysis		Under analysis		Under analysis		Under analysis		Under analysis		Under analysis		=		8.3	(2012/12/ 12)	Under analysis		ND		-	

<sup>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.</sup> 

<sup>\*2</sup> Analysis result of pumped water.

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

<sup>\*4</sup> 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

<sup>\* &</sup>quot;\*" is provided next to the name of the holes where the sampling could not be performed due to the chemical injection of ground improvement.