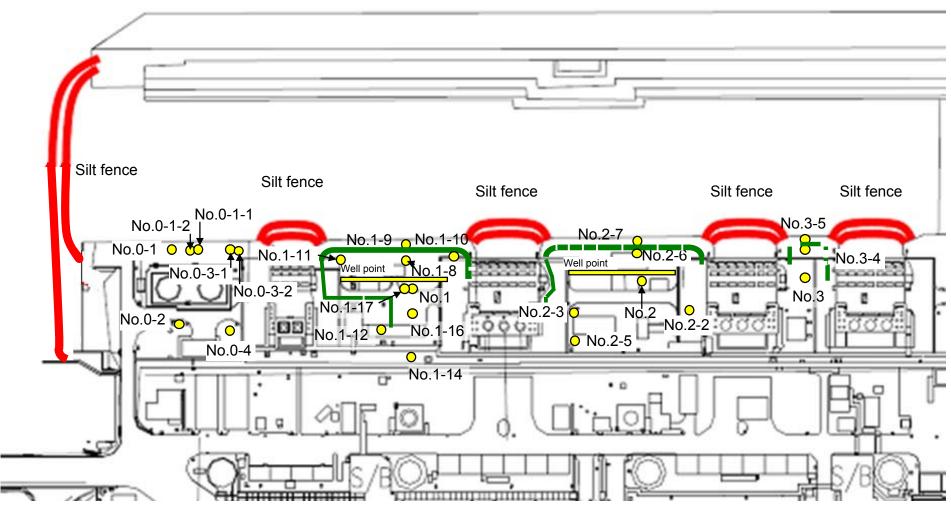
Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)

Sampling locations of underground water obtained at bank

## East seawall break



: Location where ground improvement construction was completed, or being implemented (as of December 27)

## Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection 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 sampling		/	/	/	1	1	/	1	1	1 /	/	1 /	/	1 /	/
Time of sampling								/							
	Chloride (unit: ppm)												1 /1		
С	s-134 (Approx. 2 years)														
Cs	s-137 (Approx.30 years)														
The															
other y															
	Gross β														
ŀ	H-3 (Approx. 12 years)												/		
Si	-90 (Approx. 29 years)								/						
		Underground water	er observation hole	Underground	Groundwater pumped up from	Underground	Underground	Underground	Underground	Underground	Underground	Groundwater pumped up from	Underground	Underground	Underground
		Underground wate No.1-	er observation hole 16 (P)	Underground water observation hole No.1-17		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.2-7		Underground water observation hole No.3*		Underground water observation hole No.3-5
	Date of sampling			water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
	Date of sampling Time of sampling	No.1-	16 (P)	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
		No.1- Jan 29, 2014	16 (P) Jan 30, 2014	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
	Time of sampling	No.1- Jan 29, 2014 9:30 AM	Jan 30, 2014 11:00 AM	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
С	Time of sampling Chloride (unit: ppm)	No.1- Jan 29, 2014 9:30 AM	Jan 30, 2014 11:00 AM	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
С	Time of sampling Chloride (unit: ppm) s-134 (Approx. 2 years)	No.1- Jan 29, 2014 9:30 AM - ND(0.42)	Jan 30, 2014 11:00 AM - ND(2.1)	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
C:	Time of sampling Chloride (unit: ppm) s-134 (Approx. 2 years) s-137 (Approx.30 years)	No.1- Jan 29, 2014 9:30 AM - ND(0.42) ND(0.52)	Jan 30, 2014  11:00 AM  -  ND(2.1)  ND(1.0)	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
C	Time of sampling Chloride (unit: ppm) s-134 (Approx. 2 years) s-137 (Approx.30 years)	No.1- Jan 29, 2014 9:30 AM - ND(0.42) ND(0.52)	Jan 30, 2014  11:00 AM  -  ND(2.1)  ND(1.0)	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
C:	Time of sampling Chloride (unit: ppm) s-134 (Approx. 2 years) s-137 (Approx.30 years)	No.1- Jan 29, 2014 9:30 AM - ND(0.42) ND(0.52)	Jan 30, 2014  11:00 AM  -  ND(2.1)  ND(1.0)	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
C:	Time of sampling Chloride (unit: ppm) s-134 (Approx. 2 years) s-137 (Approx.30 years)	No.1- Jan 29, 2014 9:30 AM - ND(0.42) ND(0.52)	Jan 30, 2014  11:00 AM  -  ND(2.1)  ND(1.0)	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
Control Contro	Time of sampling Chloride (unit: ppm) s-134 (Approx. 2 years) s-137 (Approx.30 years) Sb-125 (Approx. 3 years)	No.1- Jan 29, 2014 9:30 AM - ND(0.42) ND(0.52) ND	Jan 30, 2014  11:00 AM  -  ND(2.1)  ND(1.0)  10	water observation	pumped up from the well point (between Unit 1	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation
C C: The other γ	Time of sampling Chloride (unit: ppm) s-134 (Approx. 2 years) s-137 (Approx.30 years) Sb-125 (Approx. 3 years) Gross β	No.1- Jan 29, 2014 9:30 AM - ND(0.42) ND(0.52) ND  ND(18) -* -*	Jan 30, 2014  11:00 AM  -  ND(2.1)  ND(1.0)  10	water observation	pumped up from the well point (between Unit 1 and 2)	water observation	water observation	water observation	water observation	water observation	water observation	pumped up from the well point (between Unit 2	water observation	water observation	water observation

<sup>\*</sup> Data announced this time is provided in a thick-frame. The other data was announced on January 29.

<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> The results of H-3 and Sr-90 obtained on January 29 were initially announced as "under analysis". However, we will change those to "- (measurement was out of range)".

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

U	nit:	Bq/	L
U	TIIIL.	DQ/	L

		Groundwater observation hole No.0-1	ration hole observation hole		Groundwater observation hole No.0-2	Groundwater observation hole No.0-3-1	Groundwater observation hole No.0-3-2	Groundwater observation hole No.0-4	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
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]
Cs	-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)	5,600 <1/19>	ND	73,000 <1/16> <1/23>	46,000 <1/12> <1/19>	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	Groundwater observation hole No.1-8 Groundwater observation hole No.1-9		Groundwater observation ho No.1-10	e obse	Groundwater observation hole No.1-11		Groundwater observation hole No.1-12		Groundwater observation hole No.1-14		dwater ition hole 1-16	Groundwater observation hole No.1-17		the we	up from Il point	
C	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	Cs-137 (Approx.30 years)		[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		<1/6>	2,100	[11/17]	78 * 4 <1/27	> 2,300	[12/26]	730	[10/21]	410	<1/16>	3,100,000	<1/20>	130	[12/2] [12/23]	700,000	[9/23]
ŀ	H-3 (Approx. 12 years)		<1/6>	860	[11/14]	*4 270,000 <1/27	> 85,00	9/13]	440,000	[10/31]	14,000	<1/23>	43,000	[9/26]	32,000	<1/20>	460,000	[8/19]
Sr-90(Approx. 29 years)		1,300	[9/16]	170	[9/3]	Under analysis	17	[9/13]	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.2-2		Groundwater observation hole No.2-3		Groundwater observation hole No.2-5		Groundwater observation hole No.2-6		Groundwater observation hole No.2-7		Groundwater pumped up from the well point (between Unit 2 and 3)		Groundwater observation hole No.3		Groundwater observation hole No.3-1*		Groundwater observation hole No.3-4		Groundwater observation hole No.3-5	
С	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>
С	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>	0.61	[10/13]	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]	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		Under analysis		Under		Under analysis		Under analysis		Under analysis		-		8.3	(2012/12/ 12)	Under analysis		ND		-	

Since some samples are still under analysis, the highest dose of the Strontium-90 is among those previously announced
 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>\*2</sup> Analysis result of pumped water.

<sup>\*3</sup> The results obtained on in the observation hole No.0-1 are for a reference, since the water was highly turbid. (γ and Gross β were measured after filtration.)
\*4 The results obtained on in the observation hole No.1-10 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.