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 Silt fence Silt fence Silt fence No.2-9 Silt fence No.0-1-2 No.2-6 No.0-1 No.1-8 No. 3-5 No. 2-7 No.1-9 O No.0-1-1 No.0-3-1 No. 3-4🗖 Well point No.0-3-2 No.1 No.2-3-No. 3 No.1-17 ONo.1-16 No.2 No.0-275 No.1-12 🗢 No.2-5 No.1-6 No.2-2 No.1-14 No.1-13

: 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 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.1-13	Underground water observation hole No.1-14
	Date of sampling	/	/	/	/	/	/	/	/	/	/	/	/	Feb 12, 2014	,
	Time of sampling												/	12:10 PM	/
	Chloride (unit: ppm)													-	
С	Ss-134 (Approx. 2 years)													22,000	
Cs	s-137 (Approx.30 years)													54,000	
The															
other y															
	Gross β													260,000	
ŀ	H-3 (Approx. 12 years)													Under analysis	
Si	r-90 (Approx. 29 years)		/	/			/		/	/	/	/	/	Under analysis	
		Underground water observation hole No.1-16	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	/	/	/	1	/	/	/	/	1	/	/	1	/	
	Time of sampling														
	Chloride (unit: ppm)														
С	s-134 (Approx. 2 years)														
Cs	s-137 (Approx.30 years)														
The															
other y															
										<i> </i>					
	Gross β	/			/	/				/					
I	H-3 (Approx. 12 years)	[/	/	/	[/	/	/	/	/	[/	/	/	[/	/	
1	r-90 (Approx. 29 years)	17	1	/	1/	1	1	1	1	1/	1	1/	17	17	

^{* &}quot;ND" indicates that the measurement result is below the detection limit, and the detection limit of each nuclide is provided in parentheses.

^{* &}quot;-" indicates that the measurement was out of range.

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

																											Unit: Bq/L
				observa	Groundwater observation hole No.0-1-1		Groundwater observation hole No.0-1-2		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*		dwater ion hole 1-3 [*]	Groundwater observation hole No.1-4*		Groundwater observation hole No.1-5*	
Cs-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		0.62	<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 ^{*2}	[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		76,000	<2/6>	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]
	Sr-90(Approx. 29 years)		[8/8]	Under		Under		0.73	[9/2]	Under		Under		Under		1,300	[8/22]	2,300	[6/28]	5,000,000	[7/5]	130,000	[8/8]	200	[7/8]	5,100	[8/22]

		Groundwater observation hole No.1-6		Groundwater observation hole No.1-8		Groundwater observation hole No.1-9		Groundwater observation hole No.1-10		Groundwater observation hole No.1-11		Groundwater observation hole No.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
Cs-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		1.1	<2/10>
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	560,000	<2/6>	59,000	<2/3>	2,100 *4	[11/17]	78 *4	<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]
	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> <2/6>	43,000	[9/26]	32,000	<1/20>	460,000	[8/19]
S	Sr-90(Approx. 29 years)		<u> </u>	1,300	[9/16]	170	[9/3]	-		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 observation hole No.2-9	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]	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>
С	Cs-137 (Approx.30 years)		(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>	0.58 *3 <2/11>	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		6.5 *3 <2/11>	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		1	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) Sr-90(Approx. 29 years)		[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>
			[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.)

^{* &}quot;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.