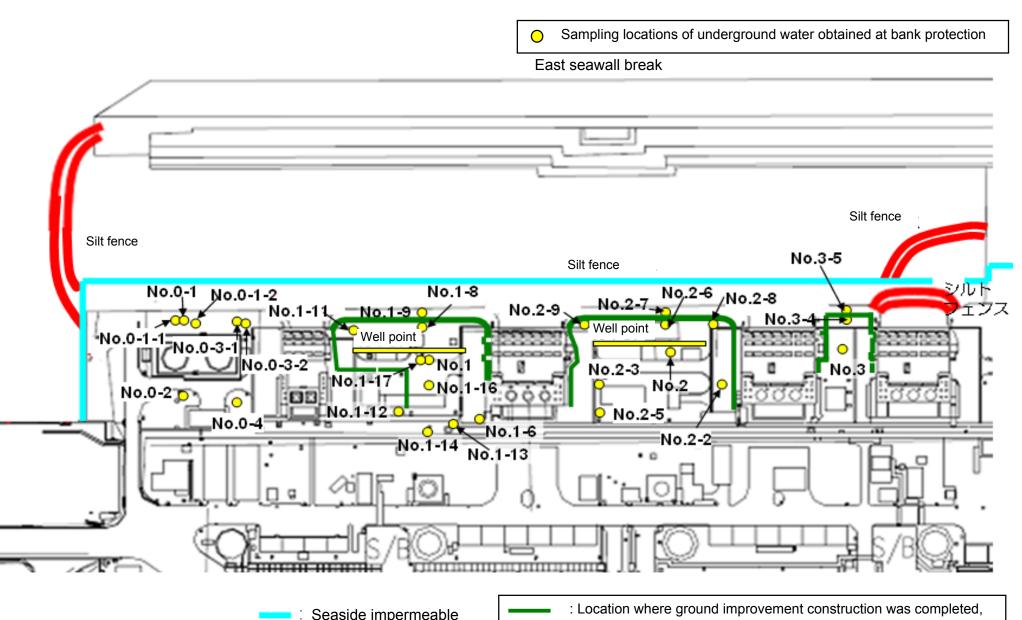
Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection (Sampling Locations of Underground Water Obtained at Bank Protection)



or being implemented (as of February 27, 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.1-14	Underground water observation hole No.1-16
	Date of sampling	Tible No.0-1	Hole No.0-1-2	Hole No.0-2	Tible No.u-3-1	Hole No.0-3-2	Hole No.0-4	Hole No. 1	Hole No. 1-6	Tible No. 1-6	Hole No. 1-9	Hole No. 1-11	Hole No. 1-12	Hole No. 1-14	Hole No. 1-16
	Time of sampling	/	/	/	/	/	/	/	/	/	/	/	/	/	,
	Chloride (unit: ppm)	/						/	/		/	/			/
	s-134 (Approx. 2 years)														/
Cs	-137 (Approx.30 years)														/
	,,,	/				/					/				/
Th -						/		/							/
The other y		/	/	/		/		/	/					/	/
		/				/		/			/			/	/
	Gross β	/					 	/		+/		/	 	/	/
F	I-3 (Approx. 12 years)	/				/	 	/	/	1/	/	/	1/	/	/
	-90 (Approx. 29 years)	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	, , ,	Y	1	<u> </u>		Y	Y	Y	Y	Y	Y	V	Y	V	<u>y</u>
		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	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.3-4	Underground water observation hole No.3-5	
	Date of sampling	/	/	/	/	/	1	/	1	1	/	1	1	Apr 2, 2014	
	Time of sampling					/	/			/		/		10:25 AM	
	Chloride (unit: ppm)													3,500	
Cs	s-134 (Approx. 2 years)													16	
Cs	-137 (Approx.30 years)													39	
The															
other y															
		7	/				1	1		1 7	1 /	1 /	1 7	300 ^{*1}	
	Gross β	/	/	/	/	l /	1 /	/	1 /	1 /	1 /	1 /		300	
F	Gross β I-3 (Approx. 12 years)						/			/			/	Under analysis	

^{* &}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.

^{*1} The highest measurement value (compared to the previous values provided in the handouts published in 'Detailed Analysis Results in the Port of Fukushima Daiichi NPS, around Discharge Channel and Bank Protection')

	Ba	

		Groundwater observation hol No.0-1	e obse	oundwater rvation hole No.0-1-1	observa	ndwater ation hole .0-1-2	observ	ndwater ation hole o.0-2	observa	ndwater ation hole 0-3-1	observ	ndwater ation hole .0-3-2	observa	idwater ition hole .0-4	observa	ndwater ation hole lo.1	observa	ndwater ation hole .1-1*	observa	dwater tion hole .1-2*	observa	dwater tion hole 1-3*	observa	ndwater ation hole .1-4°	observa	ndwater ation hole .1-5
(Cs-134 (Approx. 2 years)	9.8 *2 <3/9	0.61	<3/2>	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	Cs-137 (Approx.30 years)	25 *2 <3/9	1.5	<3/2>	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		0.64	<2/20>	ND		ND		1.0	[7/5]	62	[7/5]	ND		ND		ND	
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	
	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*1	[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) 18,00	00 (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)
	Sr-90(Approx. 29 years)	140 [8/8	Unde		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]
		Groundwater observation hol No.1-6	e obse	oundwater rvation hole No.1-8	observa	ndwater ation hole 0.1-9	observ	ndwater ation hole 0.1-10	observa	ndwater ation hole .1-11	observ	ndwater ation hole .1-12	observa	ndwater ution hole 1-13	observa No.	ndwater ation hole .1-14	observa	ndwater ation hole 1-16	observa	dwater tion hole 1-17	pumped the we (between	dwater I up from ell point en Unit 1 d 2)	observa	ndwater ation hole lo.2	Groun	Unit: Bq/L ndwater ation hole .2-1
(Cs-134 (Approx. 2 years)	6,300 <3/31	> 47	[11/25]	170	[9/3]	-		1.1	<1/13>	74	[10/21]	37,000	<2/13>		2 <2/27>		[12/13]	1.2	[12/5]	110	[9/23]	0.88	<2/26>	0.66	[9/1]
C	Cs-137 (Approx.30 years)	16,000 <3/31	> 110	(11/25)	380	[9/3]	-		2.8	<1/13>	170	[10/21]	93,000	<2/13>	230 *2	2 <2/27>	4.7	<2/17>	1.5	<3/10>	250	[9/23]	2.5	<2/26>	1.1	[8/29] [9/1]
	Ru-106 (Approx. 370 days)	ND	ND		ND		-		ND		5.4	[10/28]	ND		ND		9.2	[10/28]	4.1	[12/12]	25	[9/2]	ND		ND	
The	Mn-54 (Approx. 310 days)	320 <2/13 <2/17		<2/3>	ND		-		ND		ND		ND		ND		ND		ND		5.9	<3/3>	ND		ND	
other \	Co-60 (Approx. 5 years)	830 <2/20	> 1.3	<2/3>	ND		-		ND		0.51	[10/24]	ND		ND		0.9	[11/7]	0.61	[11/25]	ND		ND		ND	
									ND		61	[10/21]	ND		ND		11	[12/5]	2.1	[11/25]	ND		ND		ND	
	Sb-125 (Approx. 3 years)	ND	ND		ND		-																			
	Sb-125 (Approx. 3 years) Gross β	ND 770,000 <3/27			2,100	[11/17]	78	<1/27>	2,300	[12/26]	730	[10/21]	260,000	<2/12> <2/13>	1,800	<3/31>	3,100,000	<1/20> <1/30> <2/3>	3,500	<3/24>	700,000	[9/23]	1,700	[7/8]	380	[7/29]
	,,,,,,		> 59,00	00 <2/3>	*2	[11/17]	78 *2 270,000	<1/27>		[12/26] [9/13]		(10/21) (10/31)	260,000 88,000		1,800 23,000	<3/31> <2/13>	3,100,000	<1/30>	3,500 32,000	<3/24> <1/20>	700,000	(9/23) (8/19)	1,700	(7/8) <2/23>	380 440	(7/29) (8/26)

																									Unit: Bq/L
		Groun observa No.		observa	ndwater ation hole 0.2-3	Groun observa No		observa	dwater ition hole .2-6	observa	dwater tion hole .2-7	Ground observati No.		Ground observati No.2	on hole	pumped the we	ell point en Unit 2	observa	ndwater ation hole lo.3	observa	ndwater ation hole 5.3-1*	observa	dwater ition hole .3-4	observa	dwater tion hole .3-5
(s-134 (Approx. 2 years)	15	<2/12>	2.2	<2/26>	25	<2/12>	17	<3/11>	3.5	<2/23>	-		-		1.2	<3/9>	3.5	(7/25)	1.2	(7/25) (8/8)	1.9	<1/8>	64	<1/15>
С	s-137 (Approx.30 years)	38	<2/12>	5.5	<2/26>	62	<2/12>	50	<3/11>	9.0	<2/23>	-		0.58 *2	<2/11>	3.1	<3/9>	5.9	[8/8]	2.6	[8/1]	5.2	<3/13>	170	<1/15>
	Ru-106 (Approx. 370 days)	ND		ND		ND		ND		ND		-		6.5	<2/11>	ND		ND		ND		ND		-	
The	Mn-54 (Approx. 310 days)	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		-		ī		ND		ND		ND		ND		-	
	Sb-125 (Approx. 3 years)	ND		ND		30	<2/12>	ND		ND		-		-		ND		1.6	<1/1>	ND		ND		-	
	Gross β	570	<3/26>	1,500	[12/6]	150,000	<2/12>	3,200	[12/5]	640	<3/28>	3,600*2	<3/23>	1,700*2	<2/7>	240,000	[12/12]	1,400	(7/11)	180	[8/1]	18	<3/12>	69	<1/29>
	H-3 (Approx. 12 years)	660	<1/8>	1,700	[12/6]	6,300	[12/4]	1,200	[11/24] [11/27]	1,100	<1/17>	*2 1300	<3/9>	*2 13,000	<2/7>	5,100	[12/6]	3,200	(2012/12/ 12)	460	[8/1]	170	(9/18)	170	<1/8>
	Gr-90(Approx. 29 years)	Under analysis		Under analysis	.	Under analysis		Under analysis		Under analysis		-		-		-		8.3	[2012/12/ 12]	4.4	[7/23]	ND			

^{*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.)

^{* &}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.

<Reference> The Highest Dose Until the Previous Measurement* (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- water intake channel (north side of East Seawall Break)		1F, Between the water intake channel of Unit 1 and Unit 2 (surface layer)		1 intake channel of Unit 1		1F, Unit 2 Screen (Inside the Silt Fence)		1F, Between the water intake channel of Unit 2 and Unit 3				1F, Between the water intake channel of Unit 3 and Unit 4		1F, Unit 4 Screen (Inside the Silt Fence)		4 water in (In front of	side of Unit 1- take channel impermeable vall)
Cs-134(Approx. 2 years)	1.8	(6/21)	2.8	[12/2]	5.3	[8/5]	32	(10/11)	87	[10/10]	93	(10/10)	370	[10/9]	52	[12/21]	350	[7/15]	28	[9/16]	62	(9/16)	14	<3/31>
Cs-137(Approx.30 years)	4.5	<3/17>	5.8	[12/2]	8.6	(8/5)	73	[10/11]	200	[10/10]	200	(10/10)	830	[10/9]	110	[10/11] [12/21]	770	[7/15]	53	(12/16)	140	(9/16)	35	<3/31>
Gross β	17	<1/6>	46	(8/19)	40	[7/3]	320	(8/12)	1,200	[12/8]	450	(7/16)	1,700	[10/9]	480	[10/7]	1,000	[7/15]	390	(8/12)	360	[10/7]	380	<3/10>
H-3 (Approx. 12 years)	8.6	(6/26)	24	(8/19)	340	[6/26]	510	[9/2]	2,800	[12/8]	1,600	[9/1]	2,100	[10/28]	1,200	(10/7)	410	[9/2]	650	(8/12)	400	(8/12) (10/7)	290	<3/17>
Sr-90 (Approx. 29 years)	5.8	*1 (6/26)	-		7.4	(6/26)	220	(8/19)	480	[10/14]	480	[8/22]	290	[10/20]	430	[10/14]	340	[10/14]	120	[9/23]	190	(9/23)	130	[9/23]

Unit: Bq/L

		nd the south ge channel	1F, Por	t entrance	1F, East s	ide in the port	1F, West s	ide in the port	1F, North s	side in the port	1F, South	side in the por		e of the north kwater	Northeast side of the port entrance		of the south kwater	Southeast side of the north breakwater	South side of the south breakwater
Cs-134(Approx. 2 years)	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)	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	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)	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)	0.36	*1 (6/26)	49	(8/19)	-		1		1		-		1		-	1		-	-

^{*} 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.

[Reference] Standard values

Unit: Bg/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

^{*1} Since reanalysis is ongoing, the figures are just for a reference.

 $^{^{\}star}$ "ND" indicates that the measurement result is below the detection limit.

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

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