

# Sea Area Monitoring

February 10, 2015

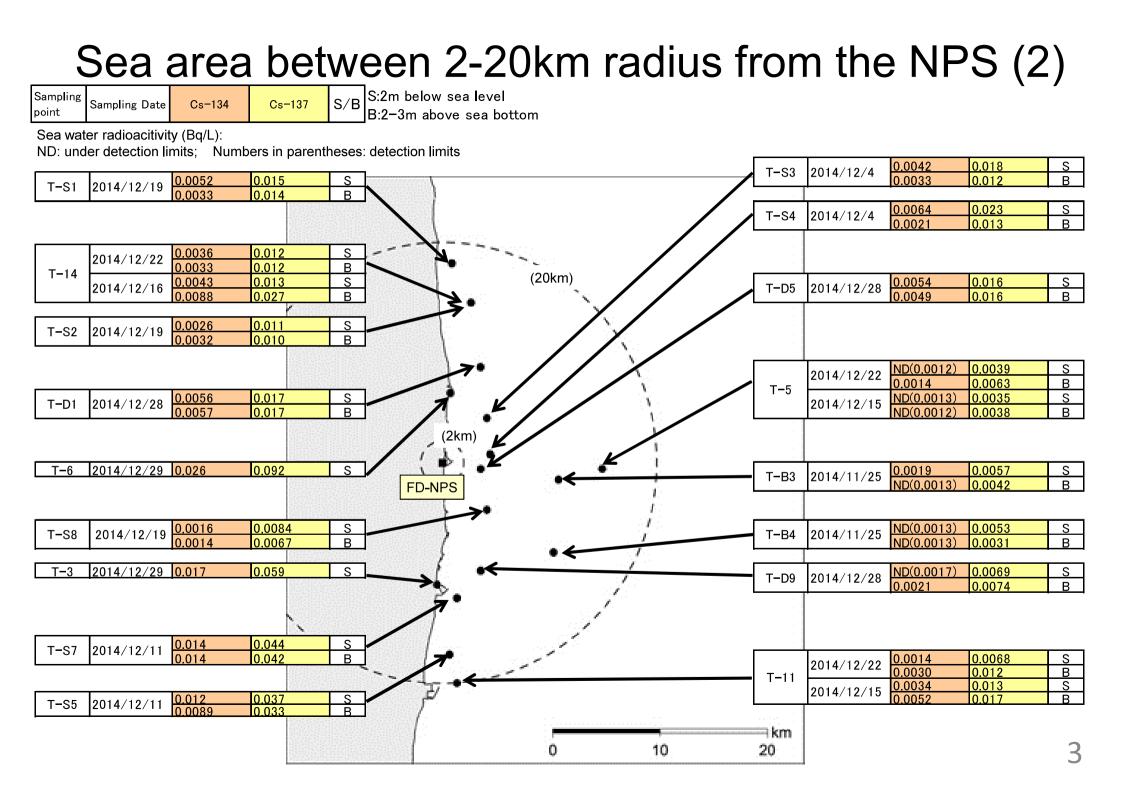
Nuclear Regulation Authority (NRA), Japan

## Sea area within 2km radius from the NPS

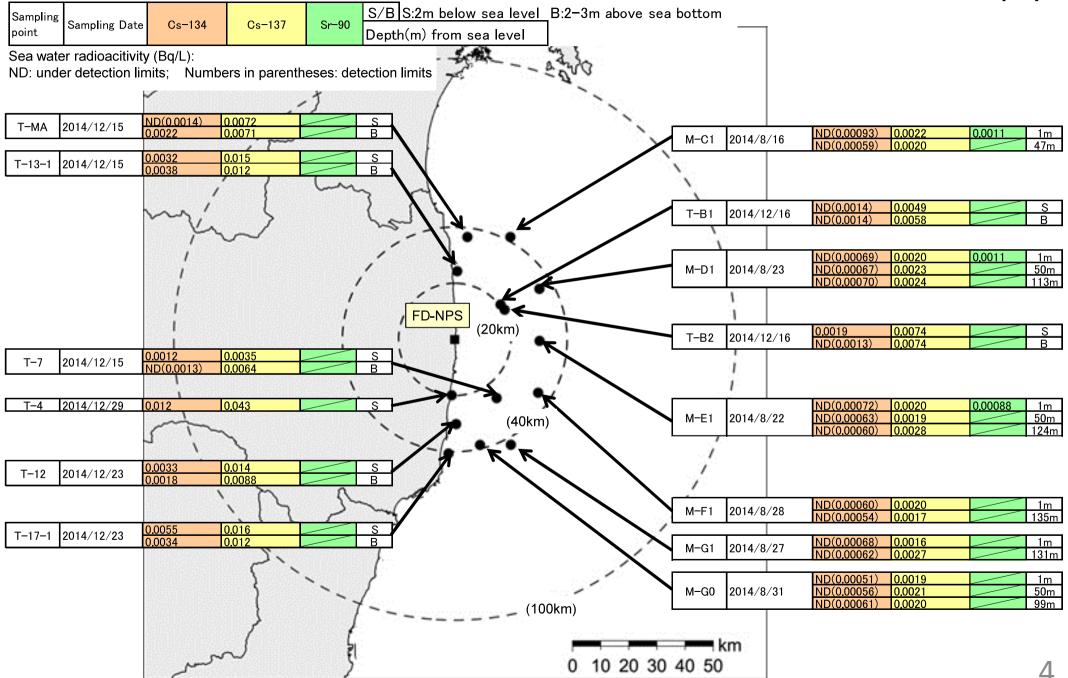
	Sampling point	Sampling Date	Cs-134	Cs-137	total $\beta$	H-3	Sr-90	total $\alpha$	Pu-238	Pu-239+Pu-240
		Sea water rad ND: under det *1:Total β: inc	ection limi luding K-4	its; Num 0 *2:Tc	tal β: excl	rentheses uding K-40		limits		
	T-1	2014/12/8	ND(0.81)	ND(0.75) 0.77 ND(0.83)	15 <sup>*'</sup> 9.9 <sup>*'</sup>	ND(1.5) 1.9	0.13	ND(1.5)	ND(5.1 × 10 <sup>-6</sup> )	ND(7 × 10 <sup>-6</sup> )
00 · · · · K	F-P02	2014/11/10	ND(0.060) 0.066 ND(0.056)	0.18	0.06 <sup>*2</sup> 0.04 <sup>*2</sup> 0.04 <sup>*2</sup>		In progress 0.039 0.012		In progress In progress ND(7×10 <sup>-6</sup> )	In progress In progress ND(7×10 <sup>-6</sup> )
	T-0-1A	2015/1/26 2015/1/20	ND(0.70) ND(0.65)		ND(15)*' ND(17)*'	In progress ND(1.5)				
	T-0-1		ND(0.44) ND(0.60)	ND(0.70) ND(0.68)	ND(15)*' ND(17)*'	In progress ND(1.5)				
	M-101	2014/11/6	0.018 0.021	0.062 0.070		0.15 0.18	In progress 0.0087			
Fukushima Daiichi-NPS	FP03	2014/11/10	ND(0.065) 0.13 0.11	ND(0.062) 0.36 0.33	0.17*2	1.7	In progress 0.14 0.12		In progress In progress ND(7 × 10 <sup>-6</sup> )	In progress In progress ND(8 × 10 <sup>-6</sup> )
	T-0-2	2015/1/26 2015/1/20	ND(0.76) ND(0.43)		ND(15)*' ND(17)*'	In progress ND(1.5)				
	M-102		0.057 0.015	0.18 0.047		0.31 0.11	In progress 0.0036			
	T-0-3A	2015/1/26 2015/1/20	ND(0.87) ND(0.74)		ND(15) <sup>*1</sup> ND(17) <sup>*1</sup>	In progress ND(1.5)				
	F <del>-</del> P01	2014/12/8 2014/11/10 2014/10/20	ND(0.067) ND(0.065) ND(0.067)	0.091 0.098 0.054	0.06 <sup>*2</sup> 0.03 <sup>*2</sup> 0.04 <sup>*2</sup>	0.48	In progress 0.006 0.011		In progress In progress ND(6 × 10 <sup>-6</sup> )	In progress In progress ND(8 × 10 <sup>-6</sup> )
	T-0-3	2015/1/26 2015/1/20	ND(0,77) ND(0,94)	ND(0.65) ND(0.65)	ND(15) <sup>*1</sup> ND(17) <sup>*1</sup>	In progress ND(1.5)				
	T-2-1	2015/1/26 2014/12/8 2014/10/21	ND(0.79) ND(0.67) ND(0.81)	ND(0.60) ND(0.64) 1.1	13 <sup>*1</sup> 12 <sup>*1</sup> 11 <sup>*1</sup>	ND(1.5) 1.8	0.013	ND(1.5)	ND(5.3×10 <sup>-6</sup> )	$(1.2 \pm 0.25) \times 10^{-5}$
0 0.5	1	<u>km</u>								11

## Sea area between 2-20km radius from the NPS (1)

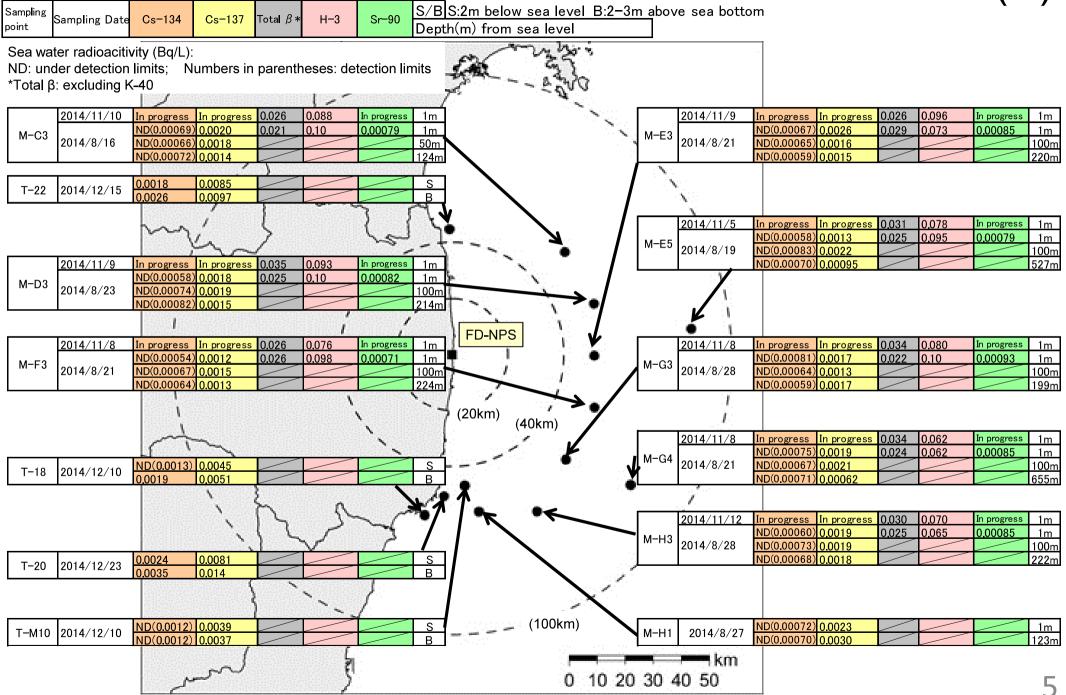
	Sampling point	Sampling Date	Cs-134	Cs-137	total $\beta$	H-3	Sr-90	total $\alpha$	Pu-238	Pu-239	+Pu-240 S Dept	S:2m below se h(m) from sea	a level level
	(20km)	S		ND: un		tion limits	Numbe	rs in parenth :: excluding		ction limit	S		
4		1	T-D1	2014/12/ 2014/10/				)*1 ND(0.31)	ND(0.0085)	ND(1.6)	$ND(6.2 \times 10^{-6})$	$(5.5 \pm 1.7) \times 10^{-6}$	S S
		1	T-6	2014/12			ND(17)	)*1 ND(0.34)					S
			F-P06	2014/12/ 2014/11/ 2014/10/	/10 ND(0	.065) ND(0.0	064) 0.03 <sup>*2</sup> 065) 0.03 <sup>*2</sup> 049) 0.03 <sup>*2</sup>	ND(0.43) ND(0.43) ND(0.45)			In progress In progress ND(6 × 10 <sup>-6</sup> )	In progress In progress ND(6 × 10 <sup>-6</sup> )	S S S
• *			M-103	2014/12/ 2014/11/	/9 0.010 /6 0.009	0.03		0.093	In progress 0.0025				0.5m 0.5m
			$-\lambda$								1		
FD-NPS	ļ		F-P04	2014/12/ 2014/11/ 2014/10/	/10 ND(0	.058) 0.13 .080) ND(0 .062) 0.092	0.04 <sup>*2</sup> 054) 0.03 <sup>*2</sup> 0.03 <sup>*2</sup>	ND(0.43) ND(0.42) ND(0.45)			In progress In progress ND(6 × 10 <sup>-6</sup> )	In progress In progress ND(6 × 10 <sup>-6</sup> )	S S S
- Or	K	St.	т-5	2014/12				)*1 ND(0.31)	ND(0.0095)	ND(1.6)			S
(2km)			1	2014/10/							$ND(5.4 \times 10^{-6})$	$(6.6 \pm 1.8) \times 10^{-6}$	S
) • *	$\langle \rangle$		T-D5	2014/12/ 2014/10/	/6 0.005 /8 0.024			)*1 ND(0.31)	ND(0.0086)	ND(1.6)	ND(6.1 × 10 <sup>-6</sup> )	$(8.4\pm2.2)\times10^{-6}$	S S
1 .			M-104	2014/12/ 2014/11/	/10 0.008 /5 0.009	31 0.028 96 0.035		0.090	In progress 0.0039				0.5m 0.5m
O.K.			<u>/</u>	1							-	-	
5		, T	F-P05	2014/12/ 2014/11/ 2014/10/	/10 ND(0	.066) ND(0	065) 0.03 <sup>*2</sup> 060) 0.03 <sup>*2</sup> 058) 0.03 <sup>*2</sup>	ND(0.44) ND(0.42) ND(0.45)			In progress In progress ND(7 × 10 <sup>-6</sup> )	In progress In progress ND(7 × 10 <sup>-6</sup> )	S S S
/		$\sim$	T-D9	2014/12/ 2014/10/	/4 0.003 /18 0.012			)*1 ND(0.31)	ND(0.0098)	ND(1.6)	$ND(4.8 \times 10^{-6})$	$(5.0 \pm 1.6) \times 10^{-6}$	S S
town in the			<b>T</b> -3	2014/12/	/2 0.040	0.14	ND(16)	)*1 ND(0.32)					S
F	km		î										
6	10		20	ų.									2



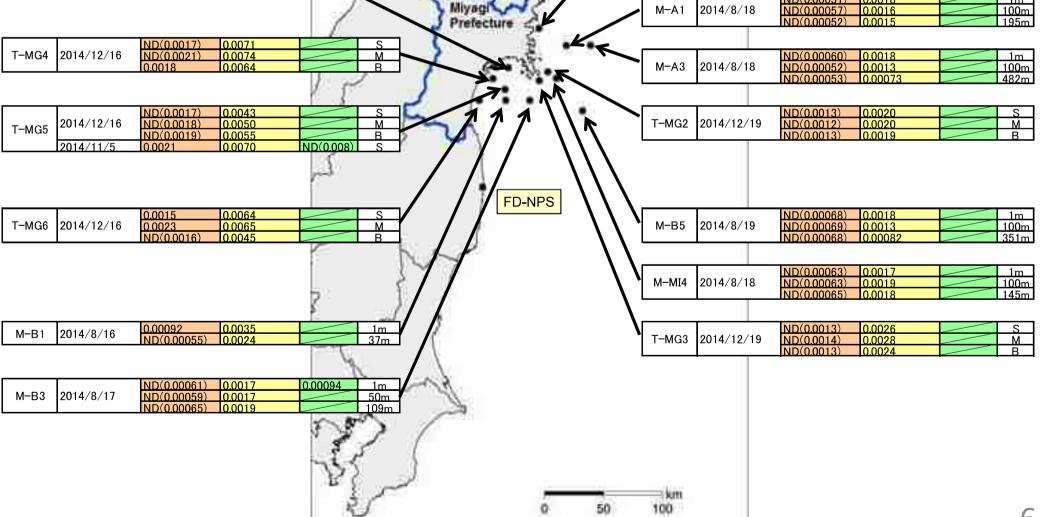
# Sea area between 20-100km radius from the NPS(1)



# Sea area between 20-100km radius from the NPS(2)



### Sea area along and off the coast of Miyagi Prefecture S/M/B S:2m below sea level Sampling Sr-90 Cs-137 Sampling Date Cs-134 Depth(m) from sea level point M:between 2m below sea level and 2-3m above sea bottom B:2-3m above sea bottom Sea water radioacitivity (Bg/L): 0.0020 ND(00018) ND: under detection limits: Numbers in parentheses: detection limits ND(0.0017) 0.0024 T-MG0 2014/12/16 0.0024 ND(0.0018) 0 0020 0 0 0 7 4 S 2014/12/19 T-MG1 ND(0.0019) 0.0086 М 0.0030 0.0073 R ND(0.00051) 0.0018 1m Miyagi M-A1 2014/8/18 ND(0.00057) 0.0016 100m ND(0.00052) 0.0015 195m



108m 111m 100m 176m 100m 159m 65m 50m 92m 561m 36m 1 T <u>1</u> <u>1</u> 1 T 3 3 3 3 S മ Sea area along and off the coast of Ibaraki Pref. and Chiba Pref. 0.0011 ND(1.0) ND(1.2) 0.00089 0.0046 0.0045 0.0038 0.0018 0.0053 0.0037 0.0017 ND(0.00064) 0.0026 0.0017 0.0032 0.0017 0.0022 0.0024 0.0031 0.0014 0.0019 0.0029 0.0027 ND(0.00083) ND(0.00079) ND(0.00061) ND(0.00058) 0.0012 ND(0.00078) ND(0.00064) ND(0.00065) ND(0.00068) ND(0.00055) ND(0.00069) ND(0.00071) ND(0.00058) ND(0.00058) ND(1.1) ND(0.84) 0.00088 0.00087 0.00099 0.0012 2014/8/25 2014/8/26 2014/8/29 2014/8/28 2014/8/29 2014/8/25 M-IB4 2014/8/25 2015/1/14 2014/8/26 M-L3 M-IB2 M-L1 M-J3 0I−I0 N-I1 M-I3 Ψ S/B S:2m below sea level B:2-3m above sea bottom Depth(m) from sea level Stalle Sta FD-NPS Pref. Pref Sea water radioacitivity (Bq/L): ND: under detection limits; Numbers in parentheses: detection limits 104m 23m 40m <del>1</del> 3 <u>3</u> S S മ S മ S ш S ഥ S ന Sr-90 ND(0.008) 0.00073 Cs-137 ND(1.0) ND(1.1) ND(1.2) ND(1.2) ND(1.0) (1<sup>-</sup>1)DN ND(1.2) (1.1)**U**N ND(1.1) (1.1)dn ND(13) 0.00080 0.0033 ND(0.00071) 0.0024 ND(0.00069) 0.0027 ND(0.00061) 0.0029 ND(0.00083) 0.0029 ND(0.00075) 0.0027 Cs-134 ND(0.99) ND(0.93) ND(0.94) ND(1.1) ND(1.2) ND(1.3) ND(1.0) ND(1.1) (06<sup>.0</sup>)ON ND(1.1) ND(1.2) Sampling Sampling Date 2014/11/12 2015/1/13 2015/1/13 2015/1/15 2015/1/14 2015/1/15 2014/8/26 2014/8/30 2014/8/29 M-M1 M-J1 <u>-</u> M-K1 ₹ L н Т-В T-7 Ϋ́

100 100

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Open sea off the coast of the local of	ND(0.00065) 0.0023 1m   0.00064 0.0028 100m   ND(0.00061) 0.0017 200m   ND(0.00067) 0.0012 300m   ND(0.00067) 0.0012 300m   ND(0.00067) 0.0012 300m   ND(0.00067) 0.0012 300m   ND(0.00052) 0.0027 100m   ND(0.00052) 0.0027 100m   ND(0.00055) 0.0017 500m   ND(0.00055) 0.0017 500m   ND(0.00055) 0.0017 500m   ND(0.00055) 0.0016 1m   ND(0.00055) 0.0017 500m   ND(0.00055) 0.0016 1m   ND(0.00055) 0.0016 1m   ND(0.00056) 0.0016 1m   ND(0.00056) 0.0016 1m   ND(0.00056) 0.0029 100m   ND(0.00056) 0.0029 100m   ND(0.00056) 0.0029 100m   ND(0.00056) 0.0029 100m	