

Japan Atomic Energy Agency, Tokai Research and Development Center, Nuclear Fuel Cycle Engineering Laboratories, Reprocessing Facility (4th quarter of FY 2007)

Measured object	Sampling		Measurement		Measured value			*Comparative area Min to Max	Remarks	Usual range of fluctuation (Note 3) Min to Max		
	Sampling point	Frequency	Object	Frequency	Object	Min to Max	Unit					
Seawater	Near discharge outlet: 5 points (A mixture of samples from the 5 points was measured)	Once/3 months	Total β radioactivity 3H	Once/3 months	Total β radioactivity 3H	ND ND	Bq/L	/	Data at about 20 km north was reported in 2nd quarter.	ND		
	Kuji-Oki and Isozaki-Oki: 2 points	Once/6 months	Total β radioactivity 3H	Once/6 months	Total β radioactivity 3H	ND ND				ND		
	About 20 km north: 1 point*	Once/year	Total β radioactivity 3H	Once/year	Total β radioactivity 3H	/				ND		
	Near discharge outlet: 5 points (A mixture of samples from the 5 points was measured)	Once/year	Nuclide analysis	Once/year	90Sr 106Ru 134Cs 137Cs 144Ce 239,240Pu	/				Bq/L	/	Reported in 2nd quarter.
About 20 km north: 1 point*							ND					
Sea-bottom soil	Near discharge outlet: 5 points (A mixture of samples from the 5 points was measured)	Once/6 months	Nuclide analysis	Once/6 months	90Sr 106Ru 134Cs 137Cs 144Ce 239,240Pu	/	Bq/kg dry	/	Reported in 1st and 3rd quarters.	ND - 0.13		
	Kuji-Oki and Isozaki-Oki: 2 points											ND
	About 20 km north: 1 point*											ND - 1.4 0.17 - 0.90
Marine organism	White bait	Once/3 months	Nuclide analysis	Once/3 months	90Sr 106Ru 134Cs 137Cs 144Ce 239,240Pu	ND ND ND 0.075 ND ND	Bq/kg raw	/		ND ND ND ND - 0.11 ND ND		
					Flatfish or flounder	Once/3 months				Nuclide analysis	Once/3 months	90Sr 106Ru 134Cs 137Cs 144Ce 239,240Pu
	Shellfish	Once/3 months	Nuclide analysis	Once/3 months			90Sr 106Ru 134Cs 137Cs 144Ce 239,240Pu	- - - - - -	Bq/kg raw			/
					Brown algae (seaweed, brown seaweed, etc.)	Once/3 months	Nuclide analysis	Once/3 months		90Sr 106Ru 134Cs 137Cs 144Ce 239,240Pu	0.029, 0.030 ND ND ND, 0.041 ND 0.0025, 0.0033	
Fishing net	Fishing net towed at Tokai village offshore	Once/3 months	Absorbed dose Surface dose	Once/3 months					β radiation γ radiation	ND ND	nGy/h nGy/h	/
Hull	Deck	Once/3 months	Absorbed dose Surface dose	Once/3 months	β radiation γ radiation	ND ND	nGy/h nGy/h	/		ND ND		
Coastal water	Kuji beach coast: 1 point	Once/6 months	Nuclide analysis	Once/6 months	S 3H	/	Bq/L	/	Reported in 1st and 3rd quarters.	ND - 0.085 ND		
	Ajigaura coast: 1 point											
	About 20 km north and south: 1 point at each*	Once/year		Once/year	90Sr 106Ru 134Cs 137Cs 144Ce 239,240Pu	/	Bq/L	/	Reported in 3rd quarter.	ND ND ND ND ND - 0.000075		
Coastal sand	Kuji beach coast: 1 point Ajigaura coast: 1 point About 20 km north and south: 1 point at each*	Once/3 months	Surface dose	Once/3 months	β radiation	65, 83	min ⁻¹	71		52 - 86		
					γ radiation	27, 43	nGy/h	36, 38	27 - 52			

(Note 1) ND: indicates below the determination limit.

(Note 2) *: indicates the comparative area.

(Note 3) The usual range of fluctuation is that in the past 10 years from FY 1997 to FY 2006.

(Note 4) The usual range of fluctuation is that in the past 3 years from FY 2004 to FY 2006.

(Note 4)

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Measured object	Sampling		Measurement		Measured value			Comparative area	Remarks	Usual range of fluctuation (Note 3)																		
	Sampling point	Frequency	Object	Frequency	Object	Min to Max	Unit	Min to Max		Min to Max (Note 4)																		
Air radiation	Dose rate	Inside environmental monitoring area: 9 points Outside environmental monitoring area: 3 points	γ radiation	Continuously	Monitoring post	36 - 46	nGy/h	/	Eight monitoring posts	33 - 46 (42±9)																		
					Monitoring station	32 - 36				32 - 33	31 - 37 (33±5)																	
	Cumulative dose (TLD)	Inside environmental monitoring area: 15 points Outside environmental monitoring area: 25 points	γ radiation	Once/3 months	γ radiation	60 - 110	μGy/91 days	50 - 100	From December 26 to March 25	40 - 120 (80±40)																		
Air	Air-borne dust	Inside environmental monitoring area: 3 points Outside environmental monitoring area: 4 points	Total α radioactivity Total β radioactivity Nuclide analysis	Once/week Once/3 months	Total α radioactivity Total β radioactivity ⁹⁰ Sr ¹³⁷ Cs ^{239,240} Pu	0.028 - 0.061 ND - 0.74 ND ND ND	mBq/m ³	0.031 - 0.061 ND ND ND ND		ND - 0.088 ND - 0.93 ND ND ND																		
										Iodine	Inside environmental monitoring area: 1 point Outside environmental monitoring area: 3 points	Continuously	¹³¹ I	Once/week	¹³¹ I	ND	mBq/m ³	ND	ND									
																			Gaseous beta radioactivity concentration	Inside environmental monitoring area: 1 point Outside environmental monitoring area: 3 points	Continuously	⁸⁵ Kr	Continuously	⁸⁵ Kr	ND	kBq/m ³	ND	ND
																												³ H in water
Rain water	Inside environmental monitoring area: 1 point	Continuously	³ H	Once/month	³ H	ND	Bq/L	/	ND - 4.8																			
Settled dust	Inside environmental monitoring area: 1 point	Continuously	Total β radioactivity	Once/month	Total β radioactivity	6.1 - 10	Bq/m ²	/	ND - 65																			
Drinking water	Inside environmental monitoring area: 1 point Outside environmental monitoring area: 3 points	Once/3 months	Total β radioactivity	Once/3 months	Total β radioactivity	0.047 - 0.050	Bq/L	/	0.058	ND - 0.090																		
			³ H	Once/3 months	³ H	ND				ND	ND																	
Leaf vegetable	Outside environmental monitoring area: 3 points	Once/3 months	Nuclide analysis	Once/year	¹³¹ I ⁹⁰ Sr ¹³⁷ Cs ^{239,240} Pu	ND	Bq/kg raw	/	Reported in 3rd quarter.	ND ND - 0.21 ND ND																		
										Polished rice	Outside environmental monitoring area: 3 points	Once/year	¹⁴ C ⁹⁰ Sr	Once/year	¹⁴ C ⁹⁰ Sr	Bq/g*carbon Bq/kg raw	/	Reported in 3rd quarter. 0.23 - 0.27 ND										
Milk	Outside environmental monitoring area: 2 points	Once/3 months	Nuclide analysis	Once/year	¹³¹ I ⁹⁰ Sr	ND	Bq/L raw	/	Reported in 3rd quarter.	ND ND - 0.034																		
										Surface soil	Inside environmental monitoring area: 2 points Outside environmental monitoring area: 3 points	Once/year	Nuclide analysis	Once/year	⁹⁰ Sr ¹³⁷ Cs ^{239,240} Pu	Bq/kg dry	/	Reported in 3rd quarter. ND - 6.1 2.8 - 36 0.058 - 1.2										
River water	Shinkawa: 3 points Kuji river upstream: 1 point*	Once/6 months	Total β radioactivity ³ H	Once/6 months	Total β radioactivity ³ H	/	Bq/L	/	Reported in 1st and 3rd quarters. ND - 0.21 ND																			
										River-bottom soil	Shinkawa: 3 points Kuji river upstream: 1 point*	Once/6 months	Total β radioactivity	Once/6 months	Total β radioactivity	/	Bq/kg dry	/	Reported in 1st and 3rd quarters. 450 - 720									

(Note 1) ND: indicates below the determination limit.

(Note 2) *: indicates the comparative area.

(Note 3) The usual range of fluctuation of air radiation is that in the past 3 years from FY 2004 to FY 2006; the usual range of fluctuation of other measured objects is that in the past 10 years from FY 1997 to FY 2006. As for cumulative dose, how

(Note 4) As for the usual range of fluctuation of air radiation, the top values indicate the min to max, and bottom values in parentheses indicate the average ±3σ. Values of other measured objects indicate min to max.