

## Japan Nuclear Fuel Limited, Reprocessing Facility (3rd quarter of FY 2007)

Measured object	Sampling		Measurement		Measured value <sup>Note 1</sup>			Comparative area	Remarks	Usual range of fluctuation <sup>Note 1, Note 2</sup>		
	Sampling point	Frequency	Object	Frequency	Object	Min to Max	Unit	Min to Max		Min to Max		
Seawater	Inside the port area of Mutsu-Ogawara Port  Near the north boundary of the port area of Mutsu-Ogawara Port  Near the south boundary of the port area of Mutsu-Ogawara Port	Once/3 months	<sup>3</sup> H	Once/3 months	<sup>3</sup> H	ND	Bq/L		- Sampling date: October 10, 2007	ND		
			<sup>90</sup> Sr		<sup>90</sup> Sr	ND				ND - 3		
			γ nuclide		<sup>60</sup> Co	ND				ND		
					<sup>106</sup> Ru	ND				ND		
					<sup>137</sup> Cs	ND				ND		
					<sup>137</sup> Cs	ND				ND		
					<sup>144</sup> Ce	ND				ND		
					<sup>154</sup> Eu	ND				ND		
Pu(a) <sup>Note 3</sup>	Pu(a) <sup>Note 3</sup>	ND	ND									
Sea-bottom soil	Near discharge outlet: 1 point About 1 km east: 1 point About 1 km west: 1 point About 0.62mi south: 1 point About 0.62mi north: 1 point About 3 km south: 1 point About 3 km north: 1 point Monomizaki-Oki: 1 point	Once/6 months	<sup>90</sup> Sr	Once/6 months	<sup>90</sup> Sr	ND	Bq/kg dry		- Reported in 1st quarter. - Sampling date in 3rd quarter: October 10, 2007	ND		
			γ nuclide		<sup>60</sup> Co	ND				ND		
					<sup>134</sup> Cs	ND				ND		
					<sup>137</sup> Cs	ND				ND		
					<sup>144</sup> Ce	ND				ND		
					<sup>154</sup> Eu	ND				ND		
					Pu(a) <sup>Note 3</sup>	Pu(a) <sup>Note 3</sup>				0.28 - 0.68	0.43	
			<sup>241</sup> Am		<sup>241</sup> Am	0.12 - 0.29				0.17		
<sup>244</sup> Cm	<sup>244</sup> Cm	ND	ND									
Marine product	Fish	Rokkasho Village Front sea area: 1 point	Once/3 months	Once/3 months	<sup>3</sup> H	ND	Bq/L		- Sampling date: October 16, 2007	ND		
					<sup>106</sup> Ru	ND				Bq/kg raw	Object: flounder	ND
					Pu(a) <sup>Note 3</sup>	ND						ND
	Shellfish	Rokkasho Village Front sea area: 1 point	Once/3 months	Once/3 months	<sup>106</sup> Ru	ND	Bq/kg raw		- Sampling date: October 11, 2007	ND		
					Pu(a) <sup>Note 3</sup>	ND				ND - 0.007		
	Seaweed	Rokkasho Village Front sea area: 1 point	Once/3 months	Once/3 months	<sup>106</sup> Ru	ND	Bq/kg raw		- Sampling date: October 12, 2007	ND		
Pu(a) <sup>Note 3</sup>					0.012	ND - 0.012						
Fishing net	Rokkasho Village Front sea area: 1 point	Once/3 months	Surface dose rate	Once/3 months	g radiation	ND	nGy/h		- Installation period: from September 13 to December 12, 2007	ND		
			Absorbed dose rate		β radiation	ND				ND - 50		

Note 1) ND: indicates below the determination limit.

Note 2) The "Usual range of fluctuation" is the minimum to the maximum of the past measured values (from 3rd quarter of FY 1998 to FY 2006), excluding the fluctuation caused by normal operation of the reprocessing facility.  
Items measured for periodsNote 3) Pu(a): indicates the sum of <sup>238</sup>Pu and <sup>239+240</sup>Pu.

Measured object	Sampling		Measurement		Measured value <sup>Note 1</sup>			Comparative area	Remarks	Usual range of fluctuation <sup>Note 1, Note 2</sup>		
	Sampling point	Frequency	Object	Frequency	Object	Min to Max	Unit	Min to Max		Min to Max		
Air radiation	Dose rate	Inside the site: 9 points	Continuously	γ radiation	Continuously	Monitoring post	13 - 75 <sup>Note 3</sup>	nGy/h		7 - 81 <sup>Note 3</sup>		
		Outside the site: 3 points				Monitoring station	16 - 79 <sup>Note 3</sup>				7 - 93 <sup>Note 3</sup>	
	Cumulative dose	Inside the site: 1 point	Continuously	γ radiation	Once/week	γ radiation	9.2 - 11.5	μSv/7 days	83	- Installation period: from October 1, 2007 to January 4, 2008	6.2 - 12.9	
		Inside the site: 9 points, Outside the site: 14 points					Once/3 months			γ radiation	86 - 108	μGy/91 days
Air	Air-borne dust	Inside the site: 9 points	Continuously	Total α radioactivity	Continuously	Total α radioactivity	7.9 <sup>Note 3</sup>	Bq/m <sup>3</sup>		- The maximum value in the quarter	16 <sup>Note 3</sup>	
				Total β radioactivity		Total β radioactivity	6.0 <sup>Note 3</sup>			8.7 <sup>Note 3</sup>		
		Outside the site: 3 point		Once/week		Total α radioactivity	* ~ 0.17				- Sampling period: from October 1 to December 31, 2007	* ~ 0.37
			Total β radioactivity	Once/week	Total β radioactivity	0.30 - 0.84	mBq/m <sup>3</sup>		- Measured values with three times as large as the counting error or lower were regarded as below the detection limit and represented by ***	* ~ 1.2		
		Inside the site: 9 points, Outside the site: 3 points	Continuously	<sup>106</sup> Ru	Once/3 months	<sup>106</sup> Ru	ND	mBq/m <sup>3</sup>		- Sampling period: inside the site: from October 1, 2007 to January 1, 2008 outside the site: from October 1 to December 31, 2007	ND	
		Pu(α) <sup>Note 4</sup>		Pu(α) <sup>Note 4</sup>		ND	ND					
		Gaseous beta radioactivity concentration	Outside the site: 3 points	Continuously	<sup>85</sup> Kr	Continuously	<sup>85</sup> Kr	ND - 4 <sup>Note 3, Note 5</sup>	kBq/m <sup>3</sup>		ND <sup>Note 3</sup>	
	Iodine	Outside the site: 3 points	Continuously	<sup>131</sup> I	Once/week	<sup>131</sup> I	ND	mBq/m <sup>3</sup>		ND		
	Moisture in air	Outside the site: 3 point	Continuously	<sup>3</sup> H	Once/month	<sup>3</sup> H	ND	mBq/m <sup>3</sup>		ND		
	Drinking water	Outside the site: 4 points	Once/3 months	<sup>3</sup> H	Once/3 months	<sup>3</sup> H	ND	Bq/L		- Sampling date: October 4 and 11, 2007	ND	
<sup>90</sup> Sr				<sup>90</sup> Sr		ND	ND					
<sup>106</sup> Ru				<sup>106</sup> Ru		ND	ND					
<sup>137</sup> Cs				<sup>137</sup> Cs		ND	ND					
Pu(α) <sup>Note 4</sup>				Pu(α) <sup>Note 4</sup>		ND	ND					
Land soil	Surface soil	Inside the site: 1 point, Outside the site: 3 points	Once/year	<sup>90</sup> Sr	Once/year	<sup>90</sup> Sr		Bq/kg dry		- Reported in 2nd quarter.	1.5 - 9.4	
				<sup>106</sup> Ru		<sup>106</sup> Ru					ND	
				<sup>129</sup> I		<sup>129</sup> I					ND	
				<sup>137</sup> Cs		<sup>137</sup> Cs					8 - 37	
				Pu(α) <sup>Note 4</sup>		Pu(α) <sup>Note 4</sup>					0.23 - 0.91	
		<sup>241</sup> Am		0.09 - 0.33								
		<sup>244</sup> Cm		ND								
	Lake-bottom soil	Outside the site: 1 point	Once/year	Once/year	<sup>90</sup> Sr	Once/year	<sup>90</sup> Sr	ND	Bq/kg dry		- Sampling date: October 2, 2007	ND - 0.5
					<sup>137</sup> Cs		<sup>137</sup> Cs	6				5 - 11
					Pu(α) <sup>Note 4</sup>		Pu(α) <sup>Note 4</sup>	1.1				0.97 - 1.3
<sup>241</sup> Am					<sup>241</sup> Am		0.46	0.34 - 0.42				
<sup>244</sup> Cm					<sup>244</sup> Cm		ND	ND				
Land plant	Polished rice	Outside the site: 3 points	Once/year	<sup>14</sup> C	Once/year	<sup>14</sup> C	0.25 - 0.26 <sup>Note 6</sup>	Bq/g · carbon		- Sampling date: October 5, 10, and 18, 2007	0.23 - 0.25	
				<sup>106</sup> Ru		<sup>106</sup> Ru	ND				ND	
				Pu(α) <sup>Note 4</sup>		Pu(α) <sup>Note 4</sup>	ND				ND	
	Root vegetable	Outside the site: 2 points	Once/year	Once/year	<sup>106</sup> Ru	Once/year	<sup>106</sup> Ru	ND	Bq/kg raw		- Reported in 2nd quarter. Object: potato - Sampling date in 3rd quarter: November 27, 2007 Object: sweet potato	ND
					Pu(α) <sup>Note 4</sup>		Pu(α) <sup>Note 4</sup>	ND				ND
Leaf vegetable	Outside the site: 1 point	Once/year	Once/year	<sup>106</sup> Ru	Once/year	<sup>106</sup> Ru	ND	Bq/kg raw		- Sampling date: October 18, 2007 Object: Chinese cabbage	ND	
				Pu(α) <sup>Note 4</sup>		Pu(α) <sup>Note 4</sup>	ND				ND	
Farm product	Milk	Outside the site: 4 points	Once/3 months	<sup>106</sup> Ru	Once/3 months	<sup>106</sup> Ru	ND	Bq/L		- Sampling date: October 3, 2007	ND	

Note 1) ND: indicates below the determination limit.

Note 2) The "Usual range of fluctuation" is the minimum to the maximum of the past measured values (from 3rd quarter of FY 1998 to FY 2006), excluding the fluctuation caused by normal operation of the reprocessing facility.  
Items measured for period

Note 3) Indicates 1 hour average values.

Note 4) Pu (α) : indicates the sum of <sup>238</sup>Pu and <sup>239+240</sup>Pu.

Note 5) Measured values exceeding the determination limit at the monitoring stations were as follows:  
At the Futamata monitoring station: 3 kBq/m<sup>3</sup> from 9 to 10 on October 1, 2 kBq/m<sup>3</sup> from 10 to 11 on October 29.  
At the Muronokubo monitoring stati

Note 6) Measured values exceeding usual range of fluctuation were observed at Obuchi and Tokusari districts; they were 0.26Bq/g · carbon at both districts.