

Results of Monitoring by Simple Integrated Dosimeters No. 3 (Summary)

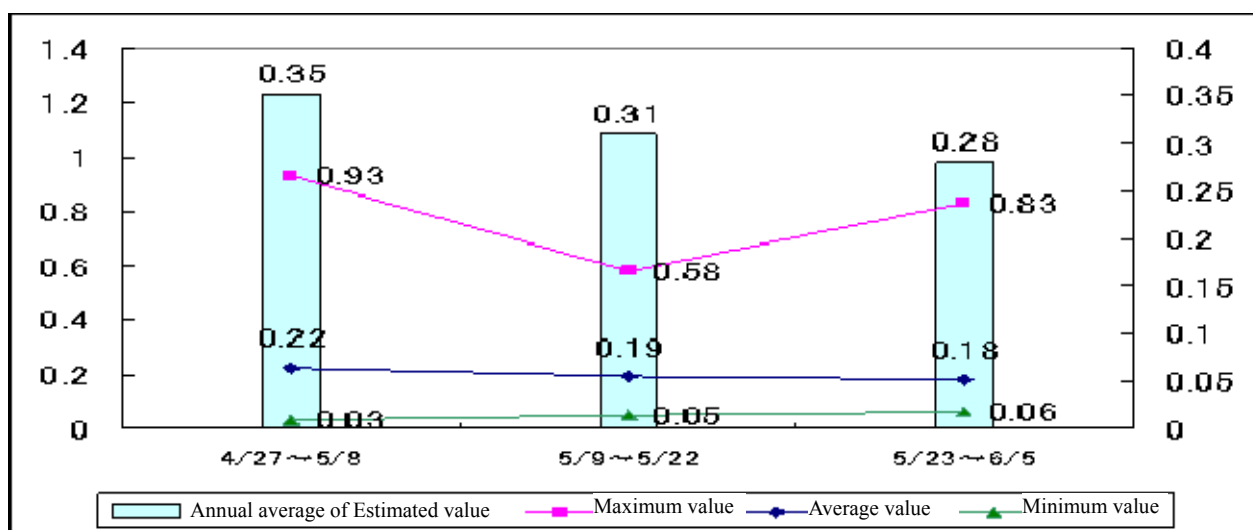
1. Measurement results between Monday May 26 and Sunday June 5, 2011

- Measurement results showed integrated doses (average per hour) of between $0.06\mu\text{Sv}/\text{hour}$ and $0.83\mu\text{Sv}/\text{hour}$, with an overall school average of $0.18\mu\text{Sv}/\text{hour}$. Assuming stay at school to be eight hours per day, for 200 days per year, this results in an annual average of approximately 0.28mSv (approximately 0.09 to 1.33mSv).
- Based on the decision of school principals, etc., outdoor activities such as exercise and club activities are being restricted to approximately one to three hours at 25 schools and kindergartens. In addition to this, there are currently no outdoor activities at 30 schools and kindergartens.

[Integrated dose estimation in schools (Annual)]

- Less than 0.5mSv : 51 schools
- Between 0.5 and less than 1mSv : 3 schools
- 1mSv or more: 1 school

2. Change of integrated dose



3. Results of monitoring by simple integrated dosimeters (general overview)

		1st Report	2nd Report	3rd Report	Total
Period		Apr. 27 – May 8	May 9 – May 22	May 23 – Jun. 5	Apr. 27 – Jun. 5
Number of schools, etc.		54	55	55	-
Integrated dose (average per hour) (μ Sv/h)	Average	0.22	0.19	0.18	0.20
	Minimum	0.03	0.05	0.06	0.08
	Maximum	0.93	0.58	0.83	0.58
Integrated dose (average of annual Estimation) (mSv) (Assuming 8 hours a day, 200 days a year)	Average	0.35	0.31	0.28	0.31
	Minimum	0.05	0.08	0.09	0.12
	Maximum	1.49	0.92	1.33	0.93
Restriction of outdoor activities	For one to three hours	13	23	25	-
	No outdoor activities	41	33	30	-

4. Comparison of Integrated dose (both average per hour) between estimation and monitored

As air dose rates have been monitored inside school buildings and at schoolyards of 55 schools, etc., an estimation of the hourly average of integrated dose can be made as follows:

$$\begin{aligned}
 & \text{“Estimated integrated dose (average per hour)”} \\
 & = (\text{“Air dose rate inside the school building (1m above the floor)”} \times \text{“Time spent inside”} \\
 & \quad + \text{“Air dose rate at the schoolyard (1m above the ground)”} \times \text{“Time spent outside”}) \\
 & \quad / \text{Total monitoring hours}
 \end{aligned}$$

(Note 1) Teachers wear simple integrated dosimeters around their waist, air dose rates at the height of 1 meter above the ground are used as those for inside the school buildings and at the schoolyards.

(Note 2) Dose rates inside the school buildings are monitored both at the center of classrooms and beside windows. Estimation is made for both cases. Monitoring results show that air dose rates are generally smaller at the center of classrooms than beside windows.

The results of the comparison of integrated dose (both averages per hour) between estimation and monitored for each school, etc. during the period between May 23 and June 5 are shown in tables in Document 1 (Classroom center) and Document 2 (Window side), and in charts in Document 3 (Classroom center) and Document 4 (Window side).

Estimated integrated dose and monitored integrated dose (both averages per hour) mostly vary in direct proportion to each other. In general, monitored values tend to be lower than estimated values.

At least, the current analysis results, suggest that monitored values are lower than estimated values obtained by multiplying air dose rates by the length of time for each location (on average, monitored values at the center of classrooms were around 70% of estimated values).

Results of Monitoring by Simple Integrated Dosimeter for Schools, etc. in Fukushima Prefecture

Survey period: May 23 (Mon) - June 5 (Sun), 2011

№	City	Name of school	Item	May 23 (Mon)	May 24 (Tue)	May 25 (Wed)	May 26 (Thu)	May 27 (Fri)	May 28 (Sat)	May 29 (Sun)	May 30 (Mon)	May 31 (Tue)	June 1 (Wed)	June 2 (Thu)	June 3 (Fri)	June 4 (Sat)	June 5 (Sun)	Total dose	June 2 inside school bldg. air dose rate (window side 50cm) (μSv/hour)	June 2 outside school bldg. air dose rate (50cm for preschool/kindergarten/elementary. In for JHS/HS) (μSv/hour)	Notes	
																		Total time (Average integrated dose) (μSv/hour)				
1	Koriyama City	Koriyama Dai-ni Junior High School	Integrated dose (μSv)	1	1	1	1	0	—	—	1	1	1	0	1	—	—	8	0.1	0.7	* Outdoor activity restriction situation of each school * Outdoor activity record of person conducting the measurement * School events, etc.	
			Integrated hours	9:00	11:00	11:30	11:00	9:00	—	—	9:00	9:00	9:00	9:00	9:00	9:00	—	—				96:30
			Radiation (μSv/hour)	0.11	0.09	0.09	0.09	0.00	—	—	0.11	0.11	0.11	0.00	0.11	—	—	—				0.08
2	Koriyama City	Kaoru Elementary School	Weather	Cloudy	Cloudy	Fair	Cloudy	Cloudy	—	—	Cloudy	Cloudy	Cloudy	Intermittent rain	Fair	—	—	13	0.5	0.9	No outdoor activity. May 27: School excursion to Nasu Animal Kingdom; measurement was not conducted.	
			Integrated dose (μSv)	1	2	1	1	—	—	2	1	1	2	2	—	—	—	—				45:00
			Integrated hours	5:00	5:00	5:00	5:00	—	—	5:00	5:00	5:00	5:00	5:00	5:00	—	—	—				0.29
3	Koriyama City	St. Paul Kindergarten	Weather	Cloudy	Cloudy	Cloudy	Fair	Cloudy	—	—	Intermittent rain	Cloudy	Cloudy	Cloudy	Fair	Fair	—	11	0.1	0.8	No outdoor activity June 4: Kaoru-Sai (presentation of learning)	
			Integrated dose (μSv)	1	1	1	1	1	—	—	1	1	1	2	0	1	—	—				89:20
			Integrated hours	8:40	7:10	7:25	9:10	7:20	—	—	9:10	9:10	8:10	8:40	7:10	7:15	—	—				0.12
4	Koriyama City	Koriyama Dai-ichi Junior High School	Weather	Cloudy	Fair	Fair	Cloudy	Cloudy	—	—	Intermittent rain	Fair	Intermittent rain	Cloudy	Fair	—	—	11	0.1	0.9	Partial outdoor activity conducted. Measuring staff conducted no outdoor activity.	
			Integrated dose (μSv)	1	1	2	0	1	—	—	1	1	1	2	1	—	—	—				95:57
			Integrated hours	9:30	9:52	10:40	8:40	8:40	—	—	11:10	8:55	8:40	11:30	8:20	—	—	—				0.11
5	Koriyama City	Koriyama Dai-san Junior High School	Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Cloudy	Cloudy	Cloudy	Cloudy	Fair	—	—	8	0.1	0.7	Partial outdoor activity conducted. Total of 5 hours of outdoor activity.	
			Integrated dose (μSv)	1	0	1	1	1	—	—	0	1	1	1	1	—	—	—				80:45
			Integrated hours	6:25	7:35	7:00	7:00	6:30	—	—	8:25	9:00	10:50	8:00	10:00	—	—	—				0.10
6	Motomiya City	Gohyakugawa Elementary School	Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Cloudy	Cloudy	Cloudy	Cloudy	Fair	—	—	11	0.1	0.4	Partial outdoor activity conducted. Total of 3 hours and 35 minutes of outdoor activity.	
			Integrated dose (μSv)	1	1	1	1	1	—	—	1	2	0	1	2	—	—	—				77:20
			Integrated hours	6:40	7:30	7:10	7:15	8:00	—	—	7:15	7:10	7:00	9:10	10:10	—	—	—				0.14
7	Motomiya City	Motomiya Dai-yon Nursery	Weather	Cloudy	Cloudy	Fair	Fair	Intermittent rain	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	29	0.4	0.5	No outdoor activity	
			Integrated dose (μSv)	3	3	3	3	3	—	—	3	3	3	3	2	—	—	—				120:05
			Integrated hours	12:05	12:00	12:05	12:00	12:00	—	—	12:10	12:05	11:30	12:00	12:10	—	—	—				0.24
8	Motomiya City	Wada Kindergarten	Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Rain	Cloudy	Rain	Cloudy	Fair	—	—	16	0.4	0.5	Partial outdoor activity conducted. Total of 50 minutes of outdoor activity.	
			Integrated dose (μSv)	1	1	2	2	2	—	—	2	1	1	2	2	—	—	—				55:00
			Integrated hours	5:45	5:45	5:45	5:45	5:45	—	—	5:15	5:15	5:15	5:15	5:15	—	—	—				0.29
9	Motomiya City	Wada Elementary School	Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Rain	Cloudy	Rain	Cloudy	Fair	—	—	16	0.2	0.5	Partial outdoor activity conducted. Total of 1 hour and 50 minutes of outdoor activity. May 31: Measurements could not be conducted due to the breakdown of equipment.	
			Integrated dose (μSv)	1	2	1	2	1	—	—	2	-	2	3	2	—	—	—				66:00
			Integrated hours	7:30	8:00	8:00	8:00	7:00	—	—	6:30	-	6:30	6:30	8:00	—	—	—				0.24
10	Nihonmatsu City	Ishii Kindergarten	Weather	Cloudy	Cloudy	Fair	Cloudy	Fair	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	7	0.3	0.6	No outdoor activity	
			Integrated dose (μSv)	1	0	1	1	0	—	—	1	1	0	1	1	—	—	—				60:30
			Integrated hours	6:00	6:00	6:00	6:00	6:00	—	—	6:00	6:00	6:30	6:00	6:00	—	—	—				0.12
11	Nihonmatsu City	Ishii Elementary School	Weather	Cloudy	Cloudy	Fair	Cloudy	Cloudy	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	10	0.2	0.7	No outdoor activity	
			Integrated dose (μSv)	1	1	1	1	2	—	—	0	1	1	1	1	—	—	—				72:20
			Integrated hours	8:20	7:50	8:20	7:20	7:20	—	—	7:10	7:10	6:10	6:20	6:20	—	—	—				0.14
12	Nihonmatsu City	Takeshita Elementary School	Weather	Cloudy	Cloudy	Fair	Cloudy	Cloudy	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	8	0.1	0.4	No outdoor activity	
			Integrated dose (μSv)	1	1	1	1	1	—	—	0	0	1	1	1	—	—	—				88:20
			Integrated hours	8:50	8:50	8:50	8:50	8:50	—	—	8:50	8:50	8:50	8:50	8:50	—	—	—				0.09
13	Nihonmatsu City	Matsugaoka Nursery	Weather	Fair	Fair	Fair	Fair	—	—	Rain	Fair	Intermittent rain	Cloudy	Fair	—	—	—	17	0.3	0.5	No outdoor activity	
			Integrated dose (μSv)	2	1	1	1	2	1	—	2	2	2	1	1	—	—	—				141:32
			Integrated hours	12:10	12:10	11:42	12:00	11:40	11:00	—	11:45	12:00	12:00	12:00	11:50	11:15	—	—				0.12
14	Nihonmatsu City	Sugita Elementary School	Weather	Cloudy	Fair	Fair	Cloudy	Cloudy	—	—	Rain	Intermittent rain	Cloudy	Cloudy	Fair	—	—	6	0.2	0.5	No outdoor activity	
			Integrated dose (μSv)	0	1	1	1	1	—	—	1	0	1	0	0	—	—	—				74:40
			Integrated hours	7:50	8:20	7:50	7:50	7:40	—	—	8:20	7:50	7:40	5:40	5:40	—	—	—				0.08
15	Nihonmatsu City	Sugita Kindergarten	Weather	Cloudy	Fair	Fair	Cloudy	Cloudy	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	6	0.2	0.5	No outdoor activity	
			Integrated dose (μSv)	1	1	0	0	1	—	—	1	1	0	1	0	—	—	—				59:35
			Integrated hours	5:55	6:00	6:00	6:00	5:55	—	—	5:50	6:00	6:00	6:00	5:55	—	—	—				0.10

№	City	Name of school	Item	May 23 (Mon)	May 24 (Tue)	May 25 (Wed)	May 26 (Thu)	May 27 (Fri)	May 28 (Sat)	May 29 (Sun)	May 30 (Mon)	May 31 (Tue)	June 1 (Wed)	June 2 (Thu)	June 3 (Fri)	June 4 (Sat)	June 5 (Sun)	Total dose	June 2 inside school bldg. air dose rate (window side 50cm) (µSv/hour)	June 2 outside school bldg. air dose rate (50cm for preschool/kinderga- ren/elementary, 1m for JHS/HS) (µSv/hour)	Notes	
																		Total time (Average integrated dose) (µSv/hour)				
16	Nihonmatsu City	Nihonmatsu Dai-ni Junior High School	Integrated dose (µSv)	1	2	2	2	1	—	—	1	2	1	2	2	—	—	16	0.5	0.6	* Outdoor activity restriction situation of each school * Outdoor activity record of person conducting the measurement * School events, etc. Partial outdoor activity conducted. Total of 8 hours of outdoor activity.	
			Integrated hours	10:00	9:45	10:00	10:15	10:15	—	—	10:10	10:10	10:10	10:10	10:10	10:10	—	—				101:05
			Radiation (µSv/hour)	0.10	0.21	0.20	0.20	0.10	—	—	0.10	0.20	0.10	0.10	0.20	0.20	—	—				0.16
17	Nihonmatsu City	Obama Junior High School	Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Rain	Intermittent rain	Intermittent rain	Intermittent rain	Fair	—	—	0.16	0.4	0.6	From May 25: Partial outdoor activity conducted. Total of 4 hours and 15 minutes of outdoor activity.	
			Integrated dose (µSv)	3	1	1	1	3	—	—	2	1	1	2	2	—	—	17				
			Integrated hours	11:10	9:40	11:15	10:00	11:10	—	—	11:00	10:10	10:40	11:05	10:30	—	—	—				106:40
18	Fukushima City	Shimogawasaki Elementary School	Radiation (µSv/hour)	0.27	0.10	0.09	0.10	0.27	—	—	0.18	0.10	0.09	0.18	0.19	—	—	0.16	0.5	2.7	No outdoor activity	
			Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	0.13				
			Integrated dose (µSv)	1	1	1	1	1	—	—	1	1	1	1	1	—	—	10				
19	Fukushima City	Okubo Elementary School	Integrated hours	8:15	7:15	7:15	7:15	7:15	—	—	6:30	8:15	7:15	8:15	7:15	—	—	74:45	0.2	2.1	Partial outdoor activity conducted. Measuring staff conducted no outdoor activity. June 3: Special holiday due to topsoil removal work for the schoolyard.	
			Radiation (µSv/hour)	0.12	0.14	0.14	0.14	0.14	—	—	0.15	0.12	0.14	0.12	0.14	—	—	0.13				
			Weather	Cloudy	Fair	Fair	Fair	Fair	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	0.11				
20	Fukushima City	Nankoudai Elementary School	Integrated dose (µSv)	1	0	1	1	1	—	—	1	1	1	1	1	—	—	7	0.3	2.4	No outdoor activity	
			Integrated hours	7:20	8:05	7:20	7:50	7:20	—	—	6:50	6:50	6:50	6:50	—	—	—	65:15				
			Radiation (µSv/hour)	0.14	0.00	0.14	0.13	0.14	—	—	0.15	0.15	0.00	0.15	—	—	—	0.11				
21	Fukushima City	Onami Elementary School	Weather	Cloudy	Cloudy	Fair	Fair	Cloudy	—	—	Rain	Fair	Fair	Cloudy	Cloudy	—	—	0.11	0.3	3.1	No outdoor activity. May 27: Measuring staff needed to work outdoors. June 1: Causes of obtained values different from those at other schools are unknown.	
			Integrated dose (µSv)	1	2	1	1	12	—	—	1	2	13	1	1	—	—	35				
			Integrated hours	7:25	7:45	7:45	7:40	7:30	—	—	7:25	8:15	8:15	8:10	7:25	—	—	77:35				
22	Date City	Oguni Elementary School	Radiation (µSv/hour)	0.13	0.13	0.14	0.13	0.13	—	—	0.12	0.00	0.13	0.13	0.00	—	—	0.11	0.7	0.7	No outdoor activity	
			Weather	Cloudy	Fair	Fair	Cloudy	Cloudy	—	—	Rain	Cloudy	Intermittent rain	Cloudy	Fair	—	—	0.14				
			Integrated dose (µSv)	1	1	2	1	1	—	—	1	1	1	1	1	—	—	11				
23	Soma City	Tamano Kindergarten	Integrated hours	7:15	8:20	7:30	8:30	7:30	—	—	7:50	8:10	8:00	7:30	7:30	—	—	78:05	0.4	0.6	Partial outdoor activity conducted. Measuring staff conducted no outdoor activity.	
			Radiation (µSv/hour)	0.14	0.12	0.27	0.12	0.13	—	—	0.13	0.12	0.13	0.13	0.13	—	—	0.14				
			Weather	Fair	Fair	Fair	Fair	Cloudy	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—	0.17				
24	Soma City	Tamano Junior High School	Integrated dose (µSv)	1	0	1	2	1	—	—	1	1	2	1	0	—	—	10	0.4	0.8	Partial outdoor activity conducted. Total of 30 minutes of outdoor activity.	
			Integrated hours	5:30	6:20	6:20	5:25	5:30	—	—	5:28	5:35	6:05	5:30	5:30	—	—	57:13				
			Radiation (µSv/hour)	0.18	0.00	0.16	0.37	0.18	—	—	0.18	0.18	0.33	0.18	0.00	—	—	0.17				
25	Soma City	Tamano Elementary School	Weather	Cloudy	Cloudy	Fair	Fair	Cloudy	—	—	Rain	Fair	Cloudy	Cloudy	Fair	—	—	0.25	0.4	0.6	Partial outdoor activity conducted. Total of 30 minutes of outdoor activity.	
			Integrated dose (µSv)	2	2	2	2	2	—	—	1	2	2	2	—	—	22					
			Integrated hours	8:50	8:30	9:00	9:10	9:20	—	—	8:40	9:05	8:40	9:30	8:30	—	—	89:15				
26	Fukushima City	Okayama Elementary School	Radiation (µSv/hour)	0.23	0.35	0.22	0.22	0.21	—	—	0.12	0.33	0.23	0.32	0.24	—	—	0.25	0.1	0.9	No outdoor activity June 3: School excursion (to another prefecture)	
			Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Rain	Cloudy	Rain	Cloudy	Fair	—	—	0.10				
			Integrated dose (µSv)	1	1	1	1	1	—	—	0	0	1	1	1	—	—	8				
27	Fukushima City	Seishin Saniku Nursery	Integrated hours	7:40	7:55	8:00	8:05	7:25	—	—	8:00	8:00	8:30	8:30	8:30	—	—	80:35	0.5	1.6	No outdoor activity May 24: Causes of obtained values different from those at other schools are unknown. June 2 and 3: Childcare at San'iku Kindergarten No outdoor activity	
			Radiation (µSv/hour)	0.13	0.13	0.13	0.12	0.13	—	—	0.00	0.00	0.12	0.12	0.12	—	—	0.10				
			Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Rain	Cloudy	Rain	Cloudy	Fair	—	—	0.11				
28	Fukushima City	Saniku Kindergarten	Integrated dose (µSv)	1	65	2	1	1	2	—	—	1	1	2	3	3	—	—	82	0.5	1.7	May 23: Childcare outside kindergarten, went to Jurokuma Park (30 minutes in total)
			Integrated hours	9:00	9:00	9:00	9:00	9:00	9:00	9:00	9:00	9:00	9:00	9:00	9:00	—	—	99:00				
			Radiation (µSv/hour)	0.11	7.22	0.22	0.11	0.11	0.22	—	—	0.11	0.11	0.22	0.33	0.33	—	—	0.83			
29	Date City	Tominari Elementary School	Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	Rain	Fair	Rain	Cloudy	Fair	—	—	0.22	0.2	0.6	No outdoor activity	
			Integrated dose (µSv)	2	0	0	2	1	—	—	1	1	1	1	2	—	—	11				
			Integrated hours	5:30	5:30	3:00	5:30	5:30	—	—	5:30	5:30	3:00	5:30	5:30	—	—	50:00				
30	Fukushima City	Fukushima Special School	Radiation (µSv/hour)	0.36	0.00	0.00	0.36	0.18	—	—	0.18	0.18	0.33	0.18	0.36	—	—	0.22	0.3	2.4	No outdoor activity May 23: Substitute holiday	
			Weather	Cloudy	Cloudy	Fair	Cloudy	Cloudy	—	—	Rain	Fair	Cloudy	Cloudy	Fair	—	—	0.16				
			Integrated dose (µSv)	1	1	0	1	1	—	—	1	1	1	1	1	—	—	9				

№	City	Name of school	Item	May 23	May 24	May 25	May 26	May 27	May 28	May 29	May 30	May 31	June 1	June 2	June 3	June 4	June 5	Total dose Total time (Average integrated dose) (μSv/hour)	June 2 inside school bldg. air dose rate (window side 50cm) (μSv/hour)	June 2 outside school bldg. air dose rate (50cm for preschool kinderga- ren/elementary, 1m for JHS/HS) (μSv/hour)	Notes * Outdoor activity restriction situation of each school * Outdoor activity record of person conducting the measurement * School events, etc.
				(Mon)	(Tue)	(Wed)	(Thu)	(Fri)	(Sat)	(Sun)	(Mon)	(Tue)	(Wed)	(Thu)	(Fri)	(Sat)	(Sun)				
46	Fukushima City	Fukushima Prefectural School for the Blind	Integrated dose (μSv)	1	1	1	1	0	—	—	1	1	0	0	1	—	—	7	0.3	2.4	Partial outdoor activity conducted. Measuring staff conducted no outdoor activity.
			Integrated hours	7:05	7:10	7:05	7:35	7:20	—	—	7:25	7:25	7:30	7:15	7:15	—	—	73:05			
			Radiation (μSv/hour)	0.14	0.14	0.14	0.13	0.00	—	—	0.13	0.13	0.00	0.14	0.14	—	—	—			
			Weather	Cloudy	Fair	Fair	Cloudy	Cloudy	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—				
47	Fukushima City	Watari Nursery	Integrated dose (μSv)	4	3	2	2	2	3	—	2	2	2	2	2	2	—	28	0.5	0.5	No outdoor activity
			Integrated hours	8:30	8:30	8:30	8:30	8:30	8:30	—	8:30	8:30	8:30	8:30	8:30	8:30	—	102:00			
			Radiation (μSv/hour)	0.47	0.35	0.24	0.24	0.24	0.35	—	0.24	0.24	0.24	0.24	0.24	0.24	—	—			
			Weather	Cloudy	Cloudy	Fair	Fair	Cloudy	Cloudy	—	Rain	Fair	Cloudy	Cloudy	Fair	Fair	—				
48	Fukushima City	Kodomo no Ie Soramame Nursery	Integrated dose (μSv)	3	2	2	2	2	—	—	2	0	2	1	2	—	—	18	0.8	0.8	Partial outdoor activity conducted. Total of 10 hours and 30 minutes of outdoor activity
			Integrated hours	5:00	5:00	6:00	5:00	5:00	—	—	5:00	5:00	5:00	5:00	5:00	—	—	51:00			
			Radiation (μSv/hour)	0.60	0.40	0.33	0.40	0.40	—	—	0.40	0.00	0.40	0.20	0.40	—	—	—			
			Weather	Cloudy	Fair	Fair	Fair	Fair	—	—	Rain	Fair	Cloudy	Cloudy	Fair	—	—				
49	Fukushima City	Watari Junior High School	Integrated dose (μSv)	1	1	1	1	1	—	—	1	1	1	1	—	—	—	9	0.1	3.0	No outdoor activity June 3: Special holiday due to topsoil removal work for the schoolyard
			Integrated hours	10:30	9:00	10:00	10:30	9:30	—	—	9:30	10:00	9:30	10:30	—	—	—	89:00			
			Radiation (μSv/hour)	0.10	0.11	0.10	0.10	0.11	—	—	0.11	0.10	0.11	0.10	—	—	—	—			
			Weather	Fair	Fair	Fair	Fair	Fair	—	—	Rain	Cloudy	Intermittent rain	Intermittent rain	—	—	—				
50	Fukushima City	Watari Kindergarten	Integrated dose (μSv)	2	1	1	1	1	—	—	1	0	0	1	1	—	—	9	0.4	0.4	No outdoor activity
			Integrated hours	3:36	3:41	3:28	3:48	3:33	—	—	3:30	3:39	3:45	5:57	6:16	—	—	41:13			
			Radiation (μSv/hour)	0.56	0.27	0.29	0.26	0.28	—	—	0.29	0.00	0.00	0.17	0.16	—	—	—			
			Weather	Cloudy	Cloudy	Fair	Fair	Cloudy	—	—	Rain	Cloudy	Cloudy	Fair	—	—	—				
51	Fukushima City	Sakura Nursery	Integrated dose (μSv)	0	2	1	1	1	0	—	2	2	1	1	1	1	—	13	0.3	2.4	Partial outdoor activity conducted. Total of 3 hours and 30 minutes of outdoor activity
			Integrated hours	8:30	9:00	9:00	8:20	9:05	9:10	—	8:30	8:40	8:40	9:00	8:40	9:20	—	105:55			
			Radiation (μSv/hour)	0.00	0.22	0.11	0.12	0.11	0.00	—	0.24	0.23	0.12	0.11	0.12	0.11	—	—			
			Weather	Cloudy	Fair	Fair	Cloudy	Fair	Cloudy	—	Rain	Fair	Cloudy	Cloudy	Fair	Fair	—				
52	Fukushima City	Watari Elementary School	Integrated dose (μSv)	1	1	0	1	1	—	—	—	—	—	1	2	0	—	7	0.1	0.3	No outdoor activity June 2 and 3: School trip (to Azawakamatsu City) May 30 and 31: Special holiday due to topsoil removal work for the schoolyard
			Integrated hours	7:30	7:40	8:20	7:20	7:20	—	—	—	—	—	6:50	12:00	9:30	—	66:30			
			Radiation (μSv/hour)	0.13	0.13	0.00	0.14	0.14	—	—	—	—	—	0.15	0.17	0.00	—	—			
			Weather	Cloudy	Fair	Fair	Fair	Cloudy	—	—	—	—	Cloudy	Fair	Cloudy	—	—				
53	Fukushima City	Toryo High School	Integrated dose (μSv)	1	2	1	1	0	—	—	1	2	2	1	1	—	—	12	0.2	2.5	Partial outdoor activity conducted. Total of 20 hours of outdoor activity
			Integrated hours	7:15	7:15	7:15	7:15	7:15	—	—	7:45	8:45	8:00	7:45	7:45	—	—	76:15			
			Radiation (μSv/hour)	0.14	0.28	0.14	0.14	0.00	—	—	0.13	0.23	0.25	0.13	0.13	—	—	—			
			Weather	Fair	Fair	Fair	Fair	Fair	—	—	Rain	Cloudy	Cloudy	Cloudy	Fair	—	—				
54	Fukushima City	Seikei High School	Integrated dose (μSv)	3	3	5	5	5	—	—	1	4	4	3	—	—	—	33	0.1	2.5	Partial outdoor activity conducted. Total of 16 hours in total outdoor activity.
			Integrated hours	12:00	12:00	12:00	12:00	12:00	—	—	12:00	12:00	12:00	12:00	12:00	—	—	108:00			
			Radiation (μSv/hour)	0.25	0.25	0.42	0.42	0.42	—	—	0.08	0.33	0.33	0.25	—	—	—	—			
			Weather	Cloudy	Cloudy	Fair	Fair	Cloudy	—	—	Rain	Fair	Cloudy	Cloudy	—	—	—				
55	Fukushima City	Tachibana High School	Integrated dose (μSv)	2	2	2	2	2	—	—	1	2	2	1	2	—	—	18	0.4	2.6	Partial outdoor activity conducted. Measuring staff conducted no outdoor activity.
			Integrated hours	12:00	12:00	12:00	12:00	12:00	—	—	12:00	12:00	12:00	12:00	12:00	—	—	120:00			
			Radiation (μSv/hour)	0.17	0.17	0.17	0.17	0.17	—	—	0.08	0.17	0.17	0.08	0.17	—	—	—			
			Weather	Cloudy	Fair	Fair	Fair	Fair	—	—	Rain	Cloudy	Intermittent rain	Intermittent rain	Intermittent rain	—	—				
			Overall average															0.18	0.3	1.5	

Comparison of integrated dose between estimation and monitored integrated dose based on results of monitoring by simple integrated dosimeters at schools, etc. in Fukushima Prefecture

Survey period: May 23 (Mon) - June 5 (Sun), 2011

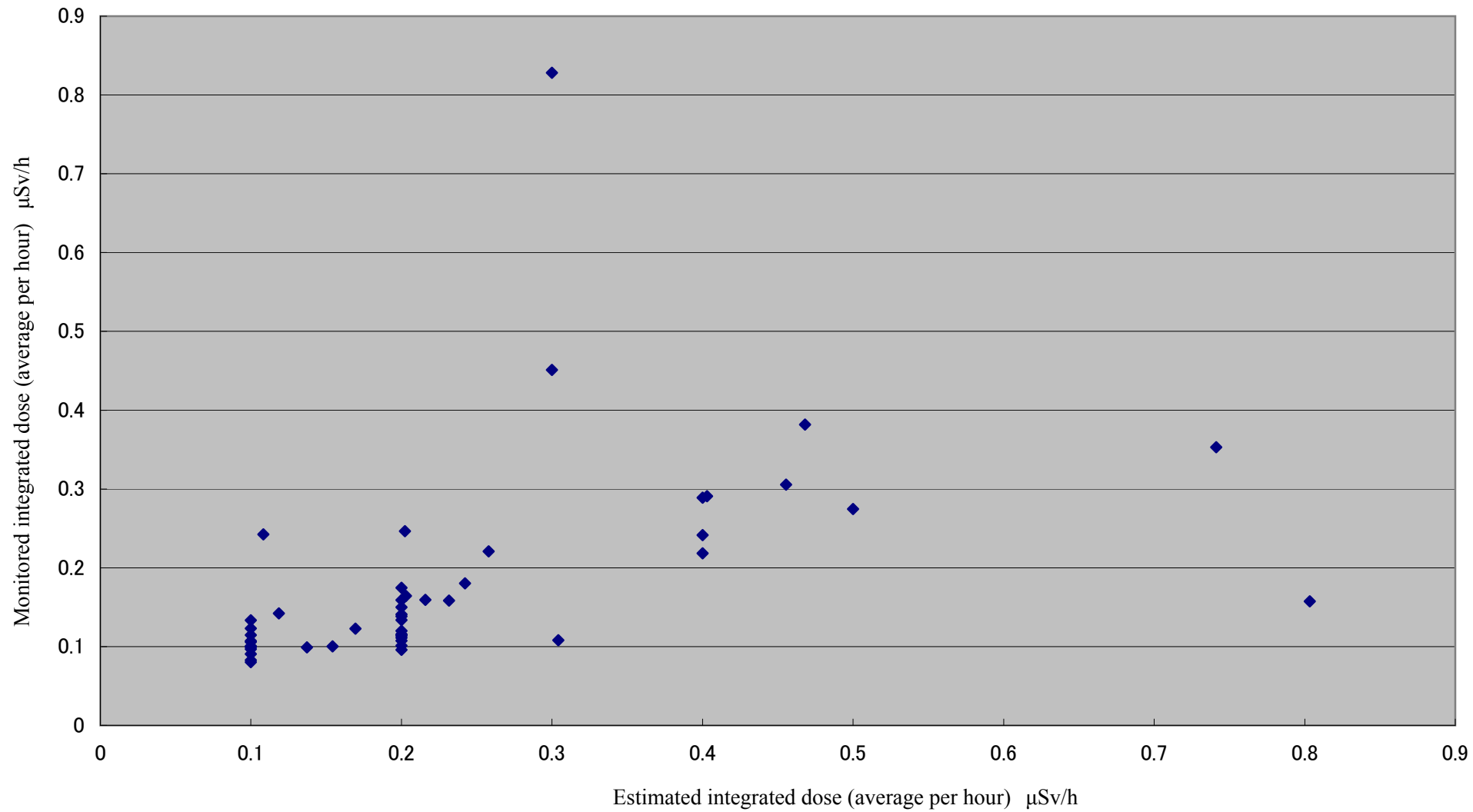
No	City	Name of school	June 2 inside school bldg. air dose rate (center 1m) ($\mu\text{Sv}/\text{hour}$)	June 2 outside school bldg. air dose rate (1m) ($\mu\text{Sv}/\text{hour}$)	Number of hours for indoor activities	Number of hours for outdoor activities	Estimated integrated dose (average per hour) ($\mu\text{Sv}/\text{h}$)	Monitored integrated dose (average per hour) ($\mu\text{Sv}/\text{h}$)	Comparison between estimated integrated dose and monitored integrated dose	Notes
1	Koriyama City	Koriyama Dai-ni Junior High School	0.1	0.7	96:30	0:00	0.10	0.08	1.21	
2	Koriyama City	Kaoru Elementary School	0.4	1.0	45:00	0:00	0.40	0.29	1.38	
3	Koriyama City	St. Paul Kindergarten	0.1	0.8	89:20	0:00	0.10	0.12	0.81	
4	Koriyama City	Koriyama Dai-ichi Junior High School	0.1	0.9	95:57	0:00	0.10	0.11	0.87	
5	Koriyama City	Koriyama Dai-san Junior High School	0.1	0.7	75:45	5:00	0.14	0.10	1.38	
6	Motomiya City	Gohyakugawa Elementary School	0.1	0.5	73:45	3:35	0.12	0.14	0.83	
7	Motomiya City	Motomiya Dai-yon Nursery	0.4	0.5	120:05	0:00	0.40	0.24	1.66	
8	Motomiya City	Wada Kindergarten	0.4	0.6	54:10	0:50	0.40	0.29	1.39	
9	Motomiya City	Wada Elementary School	0.1	0.6	64:10	1:50	0.11	0.24	0.45	
10	Nihonmatsu City	Ishii Kindergarten	0.2	0.7	60:30	0:00	0.20	0.12	1.73	
11	Nihonmatsu City	Ishii Elementary School	0.2	0.7	72:20	0:00	0.20	0.14	1.45	
12	Nihonmatsu City	Takeshita Elementary School	0.1	0.4	88:20	0:00	0.10	0.09	1.10	
13	Nihonmatsu City	Matsugaoka Nursery	0.2	0.5	141:32	0:00	0.20	0.12	1.67	
14	Nihonmatsu City	Sugita Elementary School	0.1	0.5	74:40	0:00	0.10	0.08	1.24	
15	Nihonmatsu City	Sugita Kindergarten	0.1	0.5	59:35	0:00	0.10	0.10	0.99	
16	Nihonmatsu City	Nihonmatsu Dai-ni Junior High School	0.2	0.6	93:05	8:00	0.23	0.16	1.46	
17	Nihonmatsu City	Obama Junior High School	0.2	0.6	102:25	4:15	0.22	0.16	1.35	
18	Fukushima City	Shimogawasaki Elementary School	0.2	2.4	74:45	0:00	0.20	0.13	1.50	
19	Fukushima City	Okubo Elementary School	0.1	2.0	65:15	0:00	0.10	0.11	0.93	
20	Fukushima City	Nankoudai Elementary School	0.1	2.3	75:34	0:00	0.10	0.11	0.94	
21	Fukushima City	Onami Elementary School	0.3	2.8	77:35	0:00	0.30	0.45	0.67	
22	Date City	Oguni Elementary School	0.2	0.7	78:05	0:00	0.20	0.14	1.42	
23	Soma City	Tamano Kindergarten	0.2	0.6	57:13	0:00	0.20	0.17	1.14	
24	Soma City	Tamano Junior High School	0.2	0.8	102:55	0:30	0.20	0.16	1.23	
25	Soma City	Tamano Elementary School	0.2	0.6	88:45	0:30	0.20	0.25	0.82	
26	Fukushima City	Okayama Elementary School	0.1	0.9	80:35	0:00	0.10	0.10	1.01	
27	Fukushima City	Seishin Saniku Nursery	0.3	1.5	99:00	0:00	0.30	0.83	0.36	
28	Fukushima City	Saniku Kindergarten	0.4	1.9	49:30	0:30	-	-	-	Due to activities in suburbs
29	Date City	Tominari Elementary School	0.2	0.6	74:30	0:00	0.20	0.11	1.86	
30	Fukushima City	Fukushima Special School	0.2	2.0	56:35	0:00	0.20	0.16	1.26	
31	Fukushima City	Oyama Nursery	0.1	0.4	105:00	0:00	0.10	0.13	0.75	
32	Fukushima City	Oyama Elementary School	0.1	2.7	70:00	0:00	0.10	0.10	1.00	
33	Fukushima City	Shinryo Junior High School	0.1	1.7	88:50	13:00	0.30	0.11	2.82	
34	Fukushima City	Hirano Junior High School	0.1	2.1	98:00	7:30	0.24	0.18	1.34	
35	Fukushima City	Fukushima Dai-ni Junior High School	0.2	2.6	95:25	12:00	0.47	0.38	1.23	
36	Fukushima City	Fukushima University Attached Kindergarten	0.2	0.4	59:50	0:00	-	-	-	Due to activities in suburbs
37	Fukushima City	Fukushima University Attached Junior High School	0.1	-	114:50	4:00	-	-	-	Measurement outside the school building could not be conducted due to excavation.
38	Fukushima City	Fukushima Seikei Junior High School	0.1	2.5	124:00	0:00	0.10	0.10	1.03	
39	Fukushima City	Gakuyo Junior High School	0.1	1.9	96:40	3:00	0.15	0.10	1.54	
40	Fukushima City	Fukushima Dai-ichi Junior High School	0.1	2.3	84:03	6:30	0.26	0.22	1.17	
41	Fukushima City	Fukushima Dai-san Elementary School	0.2	3.0	63:00	0:00	0.20	0.11	1.80	
42	Fukushima City	Fukushima Dai-ni Elementary School	0.2	2.5	79:05	0:00	0.20	0.11	1.76	
43	Fukushima City	Sakura no Seibo Gakuin Kindergarten	-	2.4	69:00	0:00	-	-	-	Measurement in the classroom could not be conducted due to construction work.
44	Fukushima City	Sakura no Seibo Gakuin Elementary School	0.2	2.3	87:00	0:00	0.20	0.11	1.74	
45	Fukushima City	Fukushima University Attached Elementary School	0.1	2.5	75:30	4:30	-	-	-	Due to activities in suburbs
46	Fukushima City	Fukushima Prefectural School for the Blind	0.2	2.2	73:05	0:00	0.20	0.10	2.09	
47	Fukushima City	Watari Nursery	0.5	0.5	102:00	0:00	0.50	0.27	1.82	
48	Fukushima City	Kodomo no Ie Soramame Nursery	0.7	0.9	40:30	10:30	0.74	0.35	2.10	
49	Fukushima City	Watari Junior High School	0.2	3.0	89:00	0:00	0.20	0.10	1.98	
50	Fukushima City	Watari Kindergarten	0.4	0.5	41:13	0:00	0.40	0.22	1.83	
51	Fukushima City	Sakura Nursery	0.1	2.2	102:25	3:30	0.17	0.12	1.38	
52	Fukushima City	Watari Elementary School	0.1	0.4	66:30	0:00	-	-	-	Due to activities outside school premises
53	Fukushima City	Toryo High School	0.2	2.5	56:15	20:00	0.80	0.16	5.10	
54	Fukushima City	Seikei High School	0.1	2.5	92:00	16:00	0.46	0.31	1.49	
55	Fukushima City	Tachibana High School	0.2	2.6	120:00	0:00	0.20	0.15	1.33	
Average			0.2	1.4	81:27	2:16	0.24	0.18	1.42	

Comparison of integrated dose between estimation and monitored integrated dose based on results of monitoring by simple integrated dosimeters at schools, etc. in Fukushima Prefecture

Survey period: May 23 (Mon) - June 5 (Sun), 2011

No	City	Name of school	June 2 inside school bldg. air dose rate (window side 1m) (μSv/hour)	June 2 outside school bldg. air dose rate (1m) (μSv/hour)	Number of hours for indoor activities	Number of hours for outdoor activities	Estimated integrated dose (average per hour) (μSv/h)	Monitored integrated dose (average per hour) (μSv/h)	Comparison between estimated integrated dose and monitored integrated dose	Notes
1	Koriyama City	Koriyama Dai-ni Junior High School	0.1	0.7	96:30	0:00	0.10	0.08	1.21	
2	Koriyama City	Kaoru Elementary School	0.6	1.0	45:00	0:00	0.60	0.29	2.08	
3	Koriyama City	St. Paul Kindergarten	0.2	0.8	89:20	0:00	0.20	0.12	1.62	
4	Koriyama City	Koriyama Dai-ichi Junior High School	0.2	0.9	95:57	0:00	0.20	0.11	1.74	
5	Koriyama City	Koriyama Dai-san Junior High School	0.2	0.7	75:45	5:00	0.23	0.10	2.33	
6	Motomiya City	Gohyakugawa Elementary School	0.2	0.5	73:45	3:35	0.21	0.14	1.50	
7	Motomiya City	Motomiya Dai-yon Nursery	0.5	0.5	120:05	0:00	0.50	0.24	2.07	
8	Motomiya City	Wada Kindergarten	0.5	0.6	54:10	0:50	0.50	0.29	1.72	
9	Motomiya City	Wada Elementary School	0.2	0.6	64:10	1:50	0.21	0.24	0.85	
10	Nihonmatsu City	Ishii Kindergarten	0.4	0.7	60:30	0:00	0.40	0.12	3.46	
11	Nihonmatsu City	Ishii Elementary School	0.4	0.7	72:20	0:00	0.40	0.14	2.89	
12	Nihonmatsu City	Takeshita Elementary School	0.2	0.4	88:20	0:00	0.20	0.09	2.21	
13	Nihonmatsu City	Matsugaoka Nursery	0.3	0.5	141:32	0:00	0.30	0.12	2.50	
14	Nihonmatsu City	Sugita Elementary School	0.3	0.5	74:40	0:00	0.30	0.08	3.73	
15	Nihonmatsu City	Sugita Kindergarten	0.2	0.5	59:35	0:00	0.20	0.10	1.99	
16	Nihonmatsu City	Nihonmatsu Dai-ni Junior High School	0.5	0.6	93:05	8:00	0.51	0.16	3.21	
17	Nihonmatsu City	Obama Junior High School	0.5	0.6	102:25	4:15	0.50	0.16	3.16	
18	Fukushima City	Shimogawasaki Elementary School	0.6	2.4	74:45	0:00	0.60	0.13	4.49	
19	Fukushima City	Okubo Elementary School	0.2	2.0	65:15	0:00	0.20	0.11	1.86	
20	Fukushima City	Nankoudai Elementary School	0.4	2.3	75:34	0:00	0.40	0.11	3.78	
21	Fukushima City	Onami Elementary School	0.5	2.8	77:35	0:00	0.50	0.45	1.11	
22	Date City	Oguni Elementary School	0.8	0.7	78:05	0:00	0.80	0.14	5.68	
23	Soma City	Tamano Kindergarten	0.5	0.6	57:13	0:00	0.50	0.17	2.86	
24	Soma City	Tamano Junior High School	0.5	0.8	102:55	0:30	0.50	0.16	3.05	
25	Soma City	Tamano Elementary School	0.5	0.6	88:45	0:30	0.50	0.25	2.03	
26	Fukushima City	Okayama Elementary School	0.2	0.9	80:35	0:00	0.20	0.10	2.01	
27	Fukushima City	Seishin Saniku Nursery	0.5	1.5	99:00	0:00	0.50	0.83	0.60	
28	Fukushima City	Saniku Kindergarten	0.6	1.9	49:30	0:30	-	-	-	Due to activities in suburbs
29	Date City	Tominari Elementary School	0.3	0.6	74:30	0:00	0.30	0.11	2.79	
30	Fukushima City	Fukushima Special School	0.4	2.0	56:35	0:00	0.40	0.16	2.51	
31	Fukushima City	Oyama Nursery	0.3	0.4	105:00	0:00	0.30	0.13	2.25	
32	Fukushima City	Oyama Elementary School	0.3	2.7	70:00	0:00	0.30	0.10	3.00	
33	Fukushima City	Shinryo Junior High School	0.3	1.7	88:50	13:00	0.48	0.11	4.43	
34	Fukushima City	Hirano Junior High School	0.3	2.1	98:00	7:30	0.43	0.18	2.38	
35	Fukushima City	Fukushima Dai-ni Junior High School	0.7	2.6	95:25	12:00	0.91	0.38	2.39	
36	Fukushima City	Fukushima University Attached Kindergarten	0.3	0.4	59:50	0:00	-	-	-	Due to activities in suburbs
37	Fukushima City	Fukushima University Attached Junior High School	0.2	-	114:50	4:00	-	-	-	Measurement outside the school building could not be conducted due to excavation
38	Fukushima City	Fukushima Seikei Junior High School	0.2	2.5	124:00	0:00	0.20	0.10	2.07	
39	Fukushima City	Gakuyo Junior High School	0.2	1.9	96:40	3:00	0.25	0.10	2.50	
40	Fukushima City	Fukushima Dai-ichi Junior High School	0.5	2.3	84:03	6:30	0.63	0.22	2.85	
41	Fukushima City	Fukushima Dai-san Elementary School	0.3	3.0	63:00	0:00	0.30	0.11	2.70	
42	Fukushima City	Fukushima Dai-ni Elementary School	0.4	2.5	79:05	0:00	0.40	0.11	3.51	
43	Fukushima City	Sakura no Seibo Gakuin Kindergarten	-	2.4	69:00	0:00	-	-	-	Measurement in the classroom could not be conducted due to construction work.
44	Fukushima City	Sakura no Seibo Gakuin Elementary School	0.6	2.3	87:00	0:00	0.60	0.11	5.22	
45	Fukushima City	Fukushima University Attached Elementary School	0.4	2.5	75:30	4:30	-	-	-	Due to activities in suburbs
46	Fukushima City	Fukushima Prefectural School for the Blind	0.4	2.2	73:05	0:00	0.40	0.10	4.18	
47	Fukushima City	Watari Nursery	0.5	0.5	102:00	0:00	0.50	0.27	1.82	
48	Fukushima City	Kodomo no te Soramame Nursery	0.9	0.9	40:30	10:30	0.90	0.35	2.55	
49	Fukushima City	Watari Junior High School	0.3	3.0	89:00	0:00	0.30	0.10	2.97	
50	Fukushima City	Watari Kindergarten	0.4	0.5	41:13	0:00	0.40	0.22	1.83	
51	Fukushima City	Sakura Nursery	0.2	2.2	102:25	3:30	0.27	0.12	2.17	
52	Fukushima City	Watari Elementary School	0.2	0.4	66:30	0:00	-	-	-	Due to activities outside school premises
53	Fukushima City	Toryo High School	0.3	2.5	56:15	20:00	0.88	0.16	5.57	
54	Fukushima City	Seikei High School	0.2	2.5	92:00	16:00	0.54	0.31	1.77	
55	Fukushima City	Tachibana High School	0.5	2.6	120:00	0:00	0.50	0.15	3.33	
Average			0.4	1.4	81:27	2:16	0.42	0.18	2.66	

Comparison of integrated dose (average per hour: inside, classroom center) between estimation (average per hour) and monitored (May 23-June 5, 2011)



Comparison of integrated dose (average per hour: inside, window side) between estimation(average per hour) and monitored (May 23-June 5, 2011)

