

## Exposure Dose Distribution

### 1. External Exposure Dose of Radiation Workers at the Fukushima Daiichi Nuclear Power Station

Table 1 shows what levels of external radiation exposure the workers who were involved in radiation work at the Fukushima Daiichi Nuclear Power Station from September 2014 to November 2014 received.

**Table 1**

Dose Ranges (mSv)	September 2014			October 2014			November 2014		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Above 100	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	0	0	0	0	0	0	0	0
20-50	0	0	0	0	0	0	0	0	0
10-20	0	36	36	0	18	18	0	10	10
5-10	1	288	289	0	234	234	0	207	207
1-5	51	1634	1685	62	1766	1828	40	1602	1642
1 or less	1110	8001	9111	1112	7935	9047	990	7954	8944
Total	1162	9959	11121	1174	9953	11127	1030	9773	10803
Max. (mSv)	6.00	18.22	18.22	2.70	14.92	14.92	2.62	13.40	13.40
Ave. (mSv)	0.27	0.84	0.78	0.29	0.80	0.75	0.20	0.71	0.66

• The values of the exposure doses and the number of the workers in the table above are subject to change, because there are times when APD data are replaced with monthly dose data measured by integral dosimeters or dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Main Anti-earthquake Building) need to be reflected in the table after the publication of the data.

### 2. External and Internal Exposure Doses of Radiation Workers at the Fukushima Daiichi Nuclear Power Station

Table 2 shows what levels of both external and internal radiation exposure the workers who were involved in radiation work at the Fukushima Daiichi Nuclear Power Station received during the two different periods of time, from March 11, 2011 to October 31, 2014 and from March 11, 2011 to November 30, 2014, comparing the figures to indicate whether they increased, decreased or were the same. Table 3 lists data on the radiation exposure doses of the workers engaged in radiation work in a similar way to Table 2. In Table 3, however, the comparison of the figures of the data is made between those of April to October 2014 and those of April to November 2014.

**Table 2**

Dose Ranges (mSv)	March 2011 - October 2014			March 2011 - November 2014			Fluctuation		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Above 250	6	0	6	6	0	6	0	0	0
200-250	1	2	3	1	2	3	0	0	0
150-200	26	2	28	26	2	28	0	0	0
100-150	117	20	137	117	20	137	0	0	0
75-100	285	166	451	286	169	455	1	3	4
50-75	322	1180	1502	325	1212	1537	3	32	35
20-50	623	5154	5777	619	5232	5851	-4	78	74
10-20	577	4726	5303	582	4848	5430	5	122	127
5-10	478	4523	5001	476	4601	5077	-2	78	76
1-5	782	8460	9242	791	8551	9342	9	91	100
1 or less	1131	10621	11752	1131	10907	12038	0	286	286
Total	4348	34854	39202	4360	35544	39904	12	690	702
Max. (mSv)	678.80	238.42	678.80	678.80	238.42	678.80	-	-	-
Ave. (mSv)	23.20	10.80	12.17	23.18	10.78	12.14	-	-	-

• The values of the exposure doses and the number of the workers in the table above are subject to change, because there are times when APD data are replaced with monthly dose data measured by integral dosimeters or dose data of workers who wore only an integral dosimeter (ex.,

workers who entered only the Main Anti-earthquake Building) need to be reflected in the table after the publication of the data.

- In response to the request from the Ministry of Health, Labour and Welfare, we are currently conducting a partial survey on the radiation exposure of the workers who were at the nuclear power station when the Fukushima Daiichi nuclear disaster broke out. Although the results of the whole survey will be informed when they come out, Table 2 this time reflects the survey results of the workers whose exposure doses had already been above 100mSv.

- There has been no significant internal radiation exposure reported since October 2011.

**Table 3**

Dose Ranges (mSv)	April 2014 - October 2014			April 2014 - November 2014			Fluctuation		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Above 100	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	0	0	0	0	0	0	0	0
20-50	1	387	388	2	466	468	1	79	80
10-20	10	1202	1212	16	1425	1441	6	223	229
5-10	100	1939	2039	114	2153	2267	14	214	228
1-5	525	4754	5279	545	4836	5381	20	82	102
1 or less	921	6554	7475	906	6854	7760	-15	300	285
Total	1557	14836	16393	1583	15734	17317	26	898	924
Max. (mSv)	22.15	39.85	39.85	23.13	39.85	39.85	-	-	-
Ave. (mSv)	1.51	3.69	3.48	1.62	3.92	3.71	-	-	-

- The values of the exposure doses and the number of the workers in the table above are subject to change, because there are times when APD data are replaced with monthly dose data measured by integral dosimeters or dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Main Anti-earthquake Building) need to be reflected in the table after the publication of the data.

### 3. External and Internal Exposure Doses of “Workers Exposed to Especially High Radiation”

Table 4 shows what levels of both external and internal radiation exposure “workers exposed to especially high radiation”<sup>\*1</sup> received.<sup>\*2</sup>

**Table 4**

Dose Ranges (mSv)	September 2014	October 2014	November 2014	March 2011 - November 2014
Above 100	0	0	0	1
75-100	0	0	0	174
50-75	0	0	0	219
20-50	0	0	0	253
10-20	0	0	0	162
5-10	1	0	0	120
1-5	49	61	39	150
1 or less	566	562	537	37
Total	616	623	576	1116
Max. (mSv)	6.00	2.70	2.62	102.69
Ave. (mSv)	0.38	0.41	0.27	36.68

(The number of “workers exposed to especially high radiation” in November was 625, and 49 among them did not work at the site.)

1. “Workers exposed to especially high radiation” means workers who are involved in operations in which they could be exposed to the emergency dose limit (100mSv), which is stipulated in “Ordinance on Prevention of Ionizing Radiation Hazards, chapter 7.” In more detail, they are workers engaged in the work to maintain the function of the reactor facility or the cooling facility to cool down the spent fuel tank in the reactor facility, the steam turbine and its related facilities or the surrounding area where the radiation doses exceed 0.1mSv/h. Or they are workers who would engage in keeping running the function to control or prevent the release of a large number of radioactive materials should it be likely to take place due to malfunction or damage of the reactor facility.

So far workers who have worked as “workers exposed to especially high radiation” are all TEPCO’s employees.

2. To work as “workers exposed to especially high radiation,” they applied each month as such. The figures in the cumulative data during the

period from March 2011 to November 2014 in Table 4 above include the number of workers who used to be “workers exposed to especially high radiation” as well.

- The values of the exposure dose and the number of the workers in the table above are subject to change, because there are times when APD data are replaced with monthly dose data measured by integral dosimeters or the dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Main Anti-earthquake Building) need to be reflected in the table after the publication of the data.

- The figure shown in the dose range ,“above 100mSv,” in the cumulative data during the period from March 2011 to November 2014 is the one when the March 2011 data of the internal exposure doses were reexamined in July 2013.