

# Exposure Dose Distribution of the Workers at Fukushima Daiichi Nuclear Power Plant

(Updated on 30 October 2018)

## 1 Radiation Exposure Dose Distributions

### (1) The distribution of external exposure dose of the workers during the last 3 months

(Numbers of workers who entered each area every month)

Effective dose (E) mSv	July 2018			August 2018			September 2018		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
100<E	0	0	0	0	0	0	0	0	0
75<E≤100	0	0	0	0	0	0	0	0	0
50<E≤75	0	0	0	0	0	0	0	0	0
20<E≤50	0	0	0	0	0	0	0	0	0
10<E≤20	0	0	0	0	0	0	0	0	0
5<E≤10	0	21	21	0	9	9	0	6	6
1<E≤5	27	597	624	25	453	478	17	430	447
E≤1	867	5,665	6,532	947	5,784	6,731	948	5,714	6,662
<b>Total</b>	<b>894</b>	<b>6,283</b>	<b>7,177</b>	<b>972</b>	<b>6,246</b>	<b>7,218</b>	<b>965</b>	<b>6,150</b>	<b>7,115</b>
Maximum (mSv)	2.72	9.70	9.70	2.30	6.30	6.30	1.86	7.63	7.63
Average (mSv)	0.13	0.34	0.32	0.13	0.29	0.27	0.11	0.26	0.24

(\*) Exposure doses and the number of workers are subject to change due to the replacement of accumulated doses measured using PAD with monthly doses measured using an integrating dosimeter and the reflection of values for workers wearing only an integrating dosimeter (e.g., workers working only within a seismically isolated building).

### (2) Combined Cumulative Effective Dose from April 2016 (Internal and External)

Effective dose (E) mSv	April 2016 - August 2018			April 2016 - September 2018			Difference		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
100<E	0	0	0	0	0	0	0	0	0
75<E≤100	0	1	1	0	1	1	0	0	0
50<E≤75	0	44	44	0	48	48	0	4	4
20<E≤50	14	1,136	1,150	14	1,165	1,179	0	29	29
10<E≤20	113	1,810	1,923	117	1,843	1,960	4	33	37
5<E≤10	148	2,022	2,170	154	2,038	2,192	6	16	22
1<E≤5	507	4,448	4,955	511	4,460	4,971	4	12	16
E≤1	1,263	8,252	9,515	1,267	8,287	9,554	4	35	39
<b>Total</b>	<b>2,045</b>	<b>17,713</b>	<b>19,758</b>	<b>2,063</b>	<b>17,842</b>	<b>19,905</b>	<b>18</b>	<b>129</b>	<b>147</b>
Maximum (mSv)	27.48	75.50	75.50	28.32	75.50	75.50	-	-	-
Average (mSv)	2.19	5.04	4.75	2.23	5.10	4.80	-	-	-

(\*) Exposure doses and the number of workers are subject to change due to the replacement of accumulated doses measured using PAD with monthly doses measured using an integrating dosimeter and the reflection of values for workers wearing only an integrating dosimeter (e.g., workers working only within a seismically isolated building).

(\*) As a new 5-year dose period began in April 2016, the 5-year accumulated dose will be described in April 2017 or later.

**(3) Combined Cumulative Effective Dose from April 2018 (Internal and External)**

Effective dose (E) mSv	April 2018 - August 2018			April 2018 - September 2018			Difference		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
100<E	0	0	0	0	0	0	0	0	0
75<E≤100	0	0	0	0	0	0	0	0	0
50<E≤75	0	0	0	0	0	0	0	0	0
20<E≤50	0	0	0	0	0	0	0	0	0
10<E≤20	0	113	113	0	168	168	0	55	55
5<E≤10	8	427	435	11	500	511	3	73	76
1<E≤5	201	1,755	1,956	218	1,975	2,193	17	220	237
E≤1	1,102	5,850	6,952	1,113	5,759	6,872	11	-91	-80
<b>Total</b>	<b>1,311</b>	<b>8,145</b>	<b>9,456</b>	<b>1,342</b>	<b>8,402</b>	<b>9,744</b>	<b>31</b>	<b>257</b>	<b>288</b>
Maximum (mSv)	8.37	17.11	17.11	8.70	17.50	17.50	-	-	-
Average (mSv)	0.46	1.20	1.10	0.53	1.36	1.24	-	-	-

(\*) Exposure doses and the number of workers are subject to change due to the replacement of accumulated doses measured using PAD with monthly doses measured using an integrating dosimeter and the reflection of values for workers wearing only an integrating dosimeter (e.g., workers working only within a seismically isolated building).

**(4) Distribution of sum of external exposure dose and internal exposure dose of workers engaged in specified high-dose work\***

**(Specified high-dose work has not been performed since October 2015.)**

Effective dose (E) mSv	March 2011- September 2015
100<E	1
75<E≤100	191
50<E≤75	233
20<E≤50	267
10<E≤20	186
5<E≤10	129
1<E≤5	145
E≤1	51
<b>Total</b>	<b>1,203</b>
Maximum (mSv)	102.69
Average (mSv)	36.49

(\*) Workers engaged in work to which dose limit (100 mSv) during emergency work is applied in line with Article 7 of the Ordinance on Prevention of Ionizing Radiation Hazards.

Specifically, these workers are those who are engaged in work to maintain the functions of a nuclear reactor facility or spent fuel storage pool, or in work to maintain functions to suppress or prevent the possible release of a large amount of radioactive materials due to a failure of or damage to the nuclear reactor facility at a location around the nuclear reactor facility, steam turbine, or accessory facility where hourly dose may exceed 0.1 mSv.

It should be noted that only TEPCO employees have so far been engaged in specified high-dose work.

(\*) Workers engaged in specified high-dose work in each month is the number of workers registered as workers engaged in specified high-dose work in that month.

However, the total of March 2011 to September 2015 includes workers released from specified high-dose work.

(\*) Exposure doses and the number of workers are subject to change due to the replacement of accumulated doses measured using PAD with monthly doses measured using an integrating dosimeter and the reflection of values for workers wearing only an integrating dosimeter (e.g., workers working only within a seismically isolated building).

(\*) The results of re-evaluating committed doses in March 2011 reveal that maximum cumulative effective doses for the period between March 2011 and September 2015 exceeded 100.