

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

(Updated on 30 April 2016)

## 1 Number of Workers (Later than 11 March 2011)

	Persons	Increase	Emergency Workers(*)	Updated on
Total Workers	46,956	192	19,675	As of 31 March 2016 (Obtained on 30 April)
TEPCO	4,712	6	3,636	
Contractors	42,244	186	16,039	

(\*) As of November 2014; Including workers to whom emergency dose limits apply

## 2 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	January 2016			February 2016			March 2016		
	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	4	4	0	12	12	0	14	14
5<E≤10	0	60	60	0	78	78	0	101	101
1<E≤5	38	1,194	1,232	49	1,461	1,510	42	1,245	1,287
E≤1	1,108	8,070	9,178	1,128	7,896	9,024	1,022	7,945	8,967
<b>Total</b>	<b>1,146</b>	<b>9,328</b>	<b>10,474</b>	<b>1,177</b>	<b>9,447</b>	<b>10,624</b>	<b>1,064</b>	<b>9,305</b>	<b>10,369</b>
Maximum (mSv)	3.30	16.00	16.00	4.70	12.36	12.36	2.71	13.42	13.42
Average (mSv)	0.20	0.51	0.48	0.22	0.59	0.55	0.18	0.56	0.52

(\*) 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 March 2011 (Internal and External)

Effective dose (E) mSv	March 2011- February 2016			March 2011- March 2016			Difference		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
250<E	6	0	6	6	0	6	0	0	0
200<E≤250	1	2	3	1	2	3	0	0	0
150<E≤200	26	2	28	26	2	28	0	0	0
100<E≤150	117	20	137	117	20	137	0	0	0
75<E≤100	318	293	611	321	312	633	3	19	22
50<E≤75	329	1,775	2,104	327	1,797	2,124	-2	22	20
20<E≤50	633	6,471	7,104	633	6,513	7,146	0	42	42
10<E≤20	618	5,707	6,325	620	5,793	6,413	2	86	88
5<E≤10	508	5,467	5,975	507	5,442	5,949	-1	-25	-26
1<E≤5	898	9,600	10,498	907	9,616	10,523	9	16	25
E≤1	1,252	12,721	13,973	1,247	12,747	13,994	-5	26	21
<b>Total</b>	<b>4,706</b>	<b>42,058</b>	<b>46,764</b>	<b>4,712</b>	<b>42,244</b>	<b>46,956</b>	<b>6</b>	<b>186</b>	<b>192</b>
Maximum (mSv)	678.80	238.42	678.80	678.80	238.42	678.80	-	-	-
Average (mSv)	22.41	11.68	12.76	22.43	11.75	12.83	-	-	-

(\*) Number of new comers in March 2016 was 192.

(\*) There has been no significant internal exposure reported since October 2011.

(\*) 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).

**(3) Combined Cumulative Effective Dose from April 2015 (Internal and External)**

Effective dose (E) mSv	April 2015 - February 2016			April 2015 - March 2016			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≤0	5	517	522	6	588	594	1	71	72
10<E≤20	42	1,762	1,804	52	1,940	1,992	10	178	188
5<E≤10	110	2,175	2,285	107	2,247	2,354	-3	72	69
1<E≤5	509	5,163	5,672	539	5,107	5,646	30	-56	-26
E≤1	1,020	6,553	7,573	992	6,599	7,591	-28	46	18
<b>Total</b>	<b>1,686</b>	<b>16,170</b>	<b>17,856</b>	<b>1,696</b>	<b>16,481</b>	<b>18,177</b>	<b>10</b>	<b>311</b>	<b>321</b>
Maximum(mSv)	23.10	43.20	43.20	23.94	43.20	43.20	-	-	-
Average(mSv)	1.73	4.26	4.02	1.83	4.50	4.25	-	-	-

(\*) 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) Combined Cumulative Effective Dose of Workers to Whom Emergency Dose Limits Apply\***

Effective dose (E) mSv	Jan. 2016	Feb. 2016	Mar. 2016	March 2011- March 2016
100<E	0	0	0	1
75<E≤100	0	0	0	191
50<E≤75	0	0	0	233
20<E≤50	0	0	0	267
10<E≤20	0	0	0	186
5<E≤10	0	0	0	129
1<E≤5	0	0	0	145
E≤1	0	0	0	51
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,203</b>
Maximum (mSv)	-	-	-	102.69
Average (mSv)	-	-	-	36.49

(\*) Workers under the application of the emergency dose limit (100mSv) shown in Article 7 of the Ordinance on Prevention of Ionizing Radiation Hazards.

Specifically, they are workers engaged in work to maintain the function of cooling reactors or spent fuel tanks or to maintain the function to control or prevent the release of a huge amount of radioactive material due to trouble or a breakdown at a reactor facility, in an area where radiation dose rates exceed 0.1 mSv/h, around any reactor facilities, steam turbines and related facilities, and the vicinity thereof in the NPP. Until now, all designated workers have been TEPCO employees.

(\*) The monthly number of workers to whom emergency dose limits apply is the number of workers who have filed applications as such. However, the cumulative number for the period between March 2011 and March 2016 includes those whose designation was removed.

(\*) 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 March 2016 exceeded 100.