

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

(Updated on 30 April 2014)

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

	Persons	Increase	Emergency workers(*)	Updated on
Total Workers	33,260	710	19,346	As of 31 March, 2014 (Obtained on 30 April)
TEPCO	4,138	15	3,391	
Contractors	29,122	695	15,955	

(\*) As of the end of December 2011; Targeted workers are now being identified by closely examining the database.

## 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	Jan-14			Feb-14			Mar-14		
	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	53	53	0	30	30	0	17	17
5<E<=10	0	221	221	4	168	172	0	195	195
1<E<=5	84	1,505	1,589	56	1,611	1,667	70	1,752	1,822
E<= 1	997	4,112	5,109	1,018	4,610	5,628	909	5,011	5,920
<b>Total</b>	<b>1,081</b>	<b>5,891</b>	<b>6,972</b>	<b>1,078</b>	<b>6,419</b>	<b>7,497</b>	<b>979</b>	<b>6,975</b>	<b>7,954</b>
Maximum (mSv)	4.50	15.80	15.80	6.50	17.29	17.29	4.36	17.34	17.34
Average (mSv)	0.37	1.16	1.04	0.34	1.02	0.92	0.30	0.99	0.91

(\*) 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

### (2) Combined Cumulative Effective Dose from March 2011 (Internal and External)

Effective dose (E) mSv	March 2011-February 2014			March 2011-March 2014			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	25	2	27	25	2	27	0	0	0
100<E<=150	118	20	138	118	20	138	0	0	0
75<E<=100	264	123	387	266	129	395	2	6	8
50<E<=75	319	914	1,233	319	948	1,267	0	34	34
20<E<=50	615	4,382	4,997	615	4,454	5,069	0	72	72
10<E<=20	545	4,071	4,616	551	4,157	4,708	6	86	92
5<E<=10	438	3,807	4,245	444	3,899	4,343	6	92	98
1<E<=5	727	7,083	7,810	725	7,271	7,996	-2	188	186
E<= 1	1,065	8,023	9,088	1,068	8,240	9,308	3	217	220
<b>Total</b>	<b>4,123</b>	<b>28,427</b>	<b>32,550</b>	<b>4,138</b>	<b>29,122</b>	<b>33,260</b>	<b>15</b>	<b>695</b>	<b>710</b>
Maximum (mSv)	678.80	238.42	678.80	678.80	238.42	678.80	-	-	-
Average (mSv)	23.66	11.05	12.64	23.64	11.01	12.59	-	-	-

(\*) The number of new comers in March 2014 was 710.

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

(\*) Effective doses have been changed due to the re-evaluation of committed doses, etc.

(\*) 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

**(3) Combined Cumulative Effective Dose from April 2013 (Internal and External)**

Effective dose (E) mSv	April 2013-February 2014			April 2013-March 2014			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	26	544	570	30	625	655	4	81	85
10<E<=20	78	1,843	1,921	93	2,049	2,142	15	206	221
5<E<=10	187	1,756	1,943	195	1,882	2,077	8	126	134
1<E<=5	665	3,570	4,235	669	3,770	4,439	4	200	204
E<= 1	717	4,468	5,185	706	4,722	5,428	-11	254	243
<b>Total</b>	<b>1,673</b>	<b>12,181</b>	<b>13,854</b>	<b>1,693</b>	<b>13,048</b>	<b>14,741</b>	<b>20</b>	<b>867</b>	<b>887</b>
Maximum (mSv)	39.10	40.03	40.03	41.59	41.36	41.59	-	-	-
Average (mSv)	3.04	5.29	5.01	3.18	5.46	5.20	-	-	-

(\*) 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

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

Effective dose (E) mSv	Jan-14	Feb-14	Mar-14	March 2011-March 2014
100<E	0	0	0	1
75<E<=100	0	0	0	157
50<E<=75	0	0	0	210
20<E<=50	0	0	0	239
10<E<=20	0	0	0	133
5<E<=10	0	1	0	100
1<E<=5	77	50	69	126
E<= 1	555	565	509	38
<b>Total</b>	<b>632</b>	<b>616</b>	<b>578</b>	<b>1,004</b>
Maximum (mSv)	4.50	6.50	4.36	102.69
Average (mSv)	0.50	0.43	0.40	37.70

(\*) 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 2014 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
- (\*) The results of re-evaluating committed doses in March 2011 reveal that maximum cumulative effective doses for the period between March 2011 and March 2014 exceeded 100.