

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

(Updated on 30 October 2015)

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

	Persons	Increase	Emergency Workers(*)	Updated on
Total Workers	45,241	388	19,675	As of 30 September 2015 (Obtained on 30 October)
TEPCO	4,638	37	3,636	
Contractors	40,603	351	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	July 2015			August 2015			September 2015		
	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	7	7	0	1	1	0	14	14
5<E<=10	1	134	135	0	36	36	0	99	99
1<E<=5	56	1,646	1,702	53	1,040	1,093	47	1,544	1,591
E<= 1	1,116	8,140	9,256	1,083	8,369	9,452	1,032	8,022	9,054
<b>Total</b>	<b>1,173</b>	<b>9,927</b>	<b>11,100</b>	<b>1,136</b>	<b>9,446</b>	<b>10,582</b>	<b>1,079</b>	<b>9,679</b>	<b>10,758</b>
Maximum (mSv)	5.10	10.72	10.72	3.38	10.30	10.30	4.79	14.01	14.01
Average (mSv)	0.26	0.66	0.62	0.21	0.43	0.41	0.21	0.60	0.56

(\*) 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- August 2015			March 2011- September 2015			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	302	225	527	305	237	542	3	12	15
50<E<=75	335	1,556	1,891	333	1,602	1,935	-2	46	44
20<E<=50	627	6,136	6,763	628	6,185	6,813	1	49	50
10<E<=20	611	5,548	6,159	615	5,556	6,171	4	8	12
5<E<=10	496	5,202	5,698	496	5,250	5,746	0	48	48
1<E<=5	844	9,310	10,154	847	9,415	10,262	3	105	108
E<= 1	1,236	12,251	13,487	1,264	12,334	13,598	28	83	111
<b>Total</b>	<b>4,601</b>	<b>40,252</b>	<b>44,853</b>	<b>4,638</b>	<b>40,603</b>	<b>45,241</b>	<b>37</b>	<b>351</b>	<b>388</b>
Maximum (mSv)	678.80	238.42	678.80	678.80	238.42	678.80	-	-	-
Average (mSv)	22.59	11.34	12.49	22.46	11.38	12.52	-	-	-

(\*) Number of new comers in September 2015 was 388.

(\*) 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 - August 2015			April 2015 - September 2015			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	97	97	0	149	149	0	52	52
10<E<=20	6	681	687	14	876	890	8	195	203
5<E<=10	39	1,431	1,470	54	1,563	1,617	15	132	147
1<E<=5	293	4,291	4,584	320	4,633	4,953	27	342	369
E<= 1	1,159	6,993	8,152	1,173	6,832	8,005	14	-161	-147
<b>Total</b>	<b>1,497</b>	<b>13,493</b>	<b>14,990</b>	<b>1,561</b>	<b>14,053</b>	<b>15,614</b>	<b>64</b>	<b>560</b>	<b>624</b>
Maximum(mSv)	12.62	35.89	35.89	14.79	37.47	37.47	-	-	-
Average(mSv)	0.93	2.53	2.37	1.03	2.84	2.66	-	-	-

(\*) 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	Jul. 2015	Aug. 2015	Sep. 2015	March 2011- September 2015
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	264
10<E<=20	0	0	0	189
5<E<=10	1	0	0	129
1<E<=5	48	47	40	145
E<= 1	537	532	501	51
<b>Total</b>	<b>586</b>	<b>579</b>	<b>541</b>	<b>1,203</b>
Maximum (mSv)	5.10	3.38	4.79	102.69
Average (mSv)	0.38	0.31	0.29	36.46

(\*) 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 September 2015 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 September 2015 exceeded 100.