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

(Updated on 31 August 2015)

III	(Later man 11 March 2011)										
		Persons	Increase	Emergency Workers(*)	Updated on						
Tota	al Workers	44,531	507	19,675	A 621 L 1 2015						
	TEPCO	4,578	86	3,636	As of 31 July 2015 (Obtained on 31 August)						
	Contractors	39,953	421	16,039	(Obtained on 51 August)						

1 Number of Workers (Later than 11 March 2011)

(*) 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)	May 2015			June 2015			July 2015		
mSv	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
100 <e< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></e<>	0	0	0	0	0	0	0	0	0
75 <e<=100< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></e<=100<>	0	0	0	0	0	0	0	0	0
50 <e<=75< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></e<=75<>	0	0	0	0	0	0	0	0	0
20 <e<=50< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></e<=50<>	0	0	0	0	0	0	0	0	0
10 <e<=20< td=""><td>0</td><td>4</td><td>4</td><td>0</td><td>12</td><td>12</td><td>0</td><td>5</td><td>5</td></e<=20<>	0	4	4	0	12	12	0	5	5
5 <e<=10< td=""><td>0</td><td>97</td><td>97</td><td>0</td><td>167</td><td>167</td><td>0</td><td>99</td><td>99</td></e<=10<>	0	97	97	0	167	167	0	99	99
1 <e<=5< td=""><td>42</td><td>1,747</td><td>1,789</td><td>64</td><td>1,737</td><td>1,801</td><td>48</td><td>1,594</td><td>1,642</td></e<=5<>	42	1,747	1,789	64	1,737	1,801	48	1,594	1,642
E<= 1	1,092	8,100	9,192	1,128	8,185	9,313	973	8,079	9,052
Total	1,134	9,948	11,082	1,192	10,101	11,293	1,021	9,777	10,798
Maximum (mSv)	2.12	11.40	11.40	3.90	11.50	11.50	4.64	10.72	10.72
Average (mSv)	0.20	0.66	0.61	0.25	0.72	0.67	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)	March 2011- June 2015			March	2011- July 2	Difference			
mSv	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total
250 <e< td=""><td>6</td><td>0</td><td>6</td><td>6</td><td>0</td><td>6</td><td>0</td><td>0</td><td>0</td></e<>	6	0	6	6	0	6	0	0	0
200 <e<=250< td=""><td>1</td><td>2</td><td>3</td><td>1</td><td>2</td><td>3</td><td>0</td><td>0</td><td>0</td></e<=250<>	1	2	3	1	2	3	0	0	0
150 <e<=200< td=""><td>26</td><td>2</td><td>28</td><td>26</td><td>2</td><td>28</td><td>0</td><td>0</td><td>0</td></e<=200<>	26	2	28	26	2	28	0	0	0
100 <e<=150< td=""><td>117</td><td>20</td><td>137</td><td>117</td><td>20</td><td>137</td><td>0</td><td>0</td><td>0</td></e<=150<>	117	20	137	117	20	137	0	0	0
75 <e<=100< td=""><td>301</td><td>215</td><td>516</td><td>301</td><td>219</td><td>520</td><td>0</td><td>4</td><td>4</td></e<=100<>	301	215	516	301	219	520	0	4	4
50 <e<=75< td=""><td>331</td><td>1,479</td><td>1,810</td><td>335</td><td>1,514</td><td>1,849</td><td>4</td><td>35</td><td>39</td></e<=75<>	331	1,479	1,810	335	1,514	1,849	4	35	39
20 <e<=50< td=""><td>627</td><td>6,028</td><td>6,655</td><td>627</td><td>6,100</td><td>6,727</td><td>0</td><td>72</td><td>72</td></e<=50<>	627	6,028	6,655	627	6,100	6,727	0	72	72
10 <e<=20< td=""><td>605</td><td>5,504</td><td>6,109</td><td>605</td><td>5,521</td><td>6,126</td><td>0</td><td>17</td><td>17</td></e<=20<>	605	5,504	6,109	605	5,521	6,126	0	17	17
5 <e<=10< td=""><td>494</td><td>5,141</td><td>5,635</td><td>496</td><td>5,199</td><td>5,695</td><td>2</td><td>58</td><td>60</td></e<=10<>	494	5,141	5,635	496	5,199	5,695	2	58	60
1 <e<=5< td=""><td>836</td><td>9,232</td><td>10,068</td><td>837</td><td>9,261</td><td>10,098</td><td>1</td><td>29</td><td>30</td></e<=5<>	836	9,232	10,068	837	9,261	10,098	1	29	30
E<= 1	1,148	11,909	13,057	1,227	12,115	13,342	79	206	285
Total	4,492	39,532	44,024	4,578	39,953	44,531	86	421	507
Maximum (mSv)	678.80	238.42	678.80	678.80	238.42	678.80	-	-	-
Average (mSv)	23.02	11.28	12.47	22.64	11.30	12.47	-	-	-

(*) Number of new comers in July 2015 was 507.

(*) 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).

Effective dose (E)	April 2015 - June 2015			Δnri	1 2015 - July	2015	Difference			
				April 2015 - July 2015						
mSv	TEPCO	Contractors	Total	TEPCO	Contractors	Total	TEPCO	Contractors	Total	
100 <e< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></e<>	0	0	0	0	0	0	0	0	0	
75 <e<=100< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></e<=100<>	0	0	0	0	0	0	0	0	0	
50 <e<=75< td=""><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></e<=75<>	0	0	0	0	0	0	0	0	0	
20 <e<=50< td=""><td>0</td><td>8</td><td>8</td><td>0</td><td>57</td><td>57</td><td>0</td><td>49</td><td>49</td></e<=50<>	0	8	8	0	57	57	0	49	49	
10 <e<=20< td=""><td>0</td><td>346</td><td>346</td><td>2</td><td>494</td><td>496</td><td>2</td><td>148</td><td>150</td></e<=20<>	0	346	346	2	494	496	2	148	150	
5 <e<=10< td=""><td>13</td><td>1,070</td><td>1,083</td><td>25</td><td>1,344</td><td>1,369</td><td>12</td><td>274</td><td>286</td></e<=10<>	13	1,070	1,083	25	1,344	1,369	12	274	286	
1 <e<=5< td=""><td>221</td><td>3,709</td><td>3,930</td><td>257</td><td>3,994</td><td>4,251</td><td>36</td><td>285</td><td>321</td></e<=5<>	221	3,709	3,930	257	3,994	4,251	36	285	321	
E<= 1	1,075	7,178	8,253	1,150	7,103	8,253	75	-75	0	
Total	1,309	12,311	13,620	1,434	12,992	14,426	125	681	806	
Maximum(mSv)	8.92	29.80	29.80	11.46	33.44	33.44	_	-	-	
Average(mSv)	0.65	1.91	1.72	0.74	2.26	2.11	-	-	-	

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

(*) 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	May 2015	Jun. 2015	Jul. 2015	March 2011- July 2015
100 <e< td=""><td>0</td><td>0</td><td>0</td><td>1</td></e<>	0	0	0	1
75 <e<=100< td=""><td>0</td><td>0</td><td>0</td><td>187</td></e<=100<>	0	0	0	187
50 <e<=75< td=""><td>0</td><td>0</td><td>0</td><td>235</td></e<=75<>	0	0	0	235
20 <e<=50< td=""><td>0</td><td>0</td><td>0</td><td>262</td></e<=50<>	0	0	0	262
10 <e<=20< td=""><td>0</td><td>0</td><td>0</td><td>182</td></e<=20<>	0	0	0	182
5 <e<=10< td=""><td>0</td><td>0</td><td>0</td><td>130</td></e<=10<>	0	0	0	130
1 <e<=5< td=""><td>35</td><td>55</td><td>41</td><td>143</td></e<=5<>	35	55	41	143
E<= 1	561	548	507	61
Total	596	603	548	1,201
Maximum (mSv)	2.12	3.90	4.64	102.69
Average (mSv)	0.28	0.37	0.29	36.15

(*) 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 July 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 July 2015 exceeded 100.