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

(Updated on 30 June 2015)

1 Number of Workers (Later than 11March 2011)

		Persons	Increase	Emergency Workers(*)	Updated on
Total	Workers	43,601	410	19,675	A 62134 2015
	TEPCO	4,486	10	3,636	As of 31 May 2015 (Obtained on 30 June)
	Contractors	39,115	400	16,039	(Obtained off 50 Julie)

^(*) 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)

tumbers of workers who entered each area every month,										
Effective dose (E)	March 2015			April 2015			May 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>118</td><td>118</td><td>0</td><td>20</td><td>20</td><td>0</td><td>0</td><td>0</td></e<=20<>	0	118	118	0	20	20	0	0	0	
5 <e<=10< td=""><td>3</td><td>555</td><td>558</td><td>0</td><td>248</td><td>248</td><td>0</td><td>78</td><td>78</td></e<=10<>	3	555	558	0	248	248	0	78	78	
1 <e<=5< td=""><td>79</td><td>2,464</td><td>2,543</td><td>65</td><td>2,413</td><td>2,478</td><td>38</td><td>1,645</td><td>1,683</td></e<=5<>	79	2,464	2,543	65	2,413	2,478	38	1,645	1,683	
E<= 1	1,060	8,034	9,094	1,101	7,694	8,795	936	8,094	9,030	
Total	1,142	11,171	12,313	1,166	10,375	11,541	974	9,817	10,791	
Maximum (mSv)	6.40	19.90	19.90	4.80	15.60	15.60	2.12	9.92	9.92	
Average (mSv)	0.32	1.22	1.13	0.27	0.93	0.86	0.19	0.59	0.55	

^(*) 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)

(2) Combined Cumulative Effective Dose from March 2011 (Internal and External)											
Effective dose (E) March 2011-			2015	March	2011- May	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>295</td><td>204</td><td>499</td><td>298</td><td>206</td><td>504</td><td>3</td><td>2</td><td>5</td></e<=100<>	295	204	499	298	206	504	3	2	5		
50 <e<=75< td=""><td>333</td><td>1,400</td><td>1,733</td><td>332</td><td>1,431</td><td>1,763</td><td>-1</td><td>31</td><td>30</td></e<=75<>	333	1,400	1,733	332	1,431	1,763	-1	31	30		
20 <e<=50< td=""><td>621</td><td>5,851</td><td>6,472</td><td>621</td><td>5,948</td><td>6,569</td><td>0</td><td>97</td><td>97</td></e<=50<>	621	5,851	6,472	621	5,948	6,569	0	97	97		
10 <e<=20< td=""><td>597</td><td>5,452</td><td>6,049</td><td>601</td><td>5,470</td><td>6,071</td><td>4</td><td>18</td><td>22</td></e<=20<>	597	5,452	6,049	601	5,470	6,071	4	18	22		
5 <e<=10< td=""><td>495</td><td>5,084</td><td>5,579</td><td>493</td><td>5,095</td><td>5,588</td><td>-2</td><td>11</td><td>9</td></e<=10<>	495	5,084	5,579	493	5,095	5,588	-2	11	9		
1 <e<=5< td=""><td>836</td><td>9,076</td><td>9,912</td><td>837</td><td>9,146</td><td>9,983</td><td>1</td><td>70</td><td>71</td></e<=5<>	836	9,076	9,912	837	9,146	9,983	1	70	71		
E<= 1	1,149	11,624	12,773	1,154	11,795	12,949	5	171	176		
Total	4,476	38,715	43,191	4,486	39,115	43,601	10	400	410		
Maximum (mSv)	678.80	238.42	678.80	678.80	238.42	678.80	-	-	-		
Average (mSv)	22.98	11.16	12.38	22.97	11.19	12.40	-	-	-		

^(*) Number of new comers in May 2015 was 410.

^(*) 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)	April 2015			April	2015 - Ma	y 2015	Difference		
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>1</td><td>1</td><td>0</td><td>1</td><td>1</td></e<=50<>	0	0	0	0	1	1	0	1	1
10 <e<=20< td=""><td>0</td><td>20</td><td>20</td><td>0</td><td>94</td><td>94</td><td>0</td><td>74</td><td>74</td></e<=20<>	0	20	20	0	94	94	0	74	74
5 <e<=10< td=""><td>0</td><td>248</td><td>248</td><td>3</td><td>715</td><td>718</td><td>3</td><td>467</td><td>470</td></e<=10<>	0	248	248	3	715	718	3	467	470
1 <e<=5< td=""><td>65</td><td>2,413</td><td>2,478</td><td>141</td><td>3,076</td><td>3,217</td><td>76</td><td>663</td><td>739</td></e<=5<>	65	2,413	2,478	141	3,076	3,217	76	663	739
E<= 1	1,101	7,694	8,795	1,070	7,475	8,545	-31	-219	-250
Total	1,166	10,375	11,541	1,214	11,361	12,575	48	986	1,034
Maximum(mSv)	4.80	15.60	15.60	6.53	21.07	21.07	-	-	-
Average(mSv)	0.27	0.93	0.86	0.41	1.36	1.27	-	-	-

^(*) 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*

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Effective dose (E) mSv	Mar. 2015	Apr. 2015	May. 2015	March 2011- May 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>185</td></e<=100<>	0	0	0	185
50 <e<=75< td=""><td>0</td><td>0</td><td>0</td><td>229</td></e<=75<>	0	0	0	229
20 <e<=50< td=""><td>0</td><td>0</td><td>0</td><td>252</td></e<=50<>	0	0	0	252
10 <e<=20< td=""><td>0</td><td>0</td><td>0</td><td>177</td></e<=20<>	0	0	0	177
5 <e<=10< td=""><td>3</td><td>0</td><td>0</td><td>129</td></e<=10<>	3	0	0	129
1 <e<=5< td=""><td>71</td><td>56</td><td>32</td><td>143</td></e<=5<>	71	56	32	143
E<= 1	541	550	517	29
Total	615	606	549	1,145
Maximum (mSv)	6.40	4.80	2.12	102.69
Average (mSv)	0.47	0.39	0.23	37.23

- (*) 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 May 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 May 2015 exceeded 100.