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

(Updated on 29 May 2015)

1 Number of Workers (Later than 11March 2011)

		Persons	Increase	Emergency Workers(*)	Updated on
Total	Workers	43,189	556	19,675	A 620 A 112015
	TEPCO	4,476	46	3,636	As of 30 April 2015 (Obtained on 29 May)
	Contractors	38,713	510	16,039	(Obtained off 29 May)

^(*) 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)	February 2015			March 2015			April 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>36</td><td>36</td><td>0</td><td>118</td><td>118</td><td>0</td><td>24</td><td>24</td></e<=20<>	0	36	36	0	118	118	0	24	24
5 <e<=10< td=""><td>6</td><td>285</td><td>291</td><td>3</td><td>555</td><td>558</td><td>0</td><td>202</td><td>202</td></e<=10<>	6	285	291	3	555	558	0	202	202
1 <e<=5< td=""><td>74</td><td>2,214</td><td>2,288</td><td>79</td><td>2,464</td><td>2,543</td><td>59</td><td>2,372</td><td>2,431</td></e<=5<>	74	2,214	2,288	79	2,464	2,543	59	2,372	2,431
E<= 1	1,096	8,497	9,593	1,060	8,034	9,094	963	7,698	8,661
Total	1,176	11,032	12,208	1,142	11,171	12,313	1,022	10,296	11,318
Maximum (mSv)	8.00	16.80	16.80	6.40	19.90	19.90	4.37	17.05	17.05
Average (mSv)	0.33	0.89	0.83	0.32	1.22	1.13	0.25	0.86	0.80

^(*) 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 Directive Dose from Practical 2011 (Internal and Daternal)									
Effective dose (E)	ective dose (E) March 2011- March 2015			March 2011- April 2015			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>293</td><td>196</td><td>489</td><td>295</td><td>203</td><td>498</td><td>2</td><td>7</td><td>9</td></e<=100<>	293	196	489	295	203	498	2	7	9
50 <e<=75< td=""><td>331</td><td>1,363</td><td>1,694</td><td>332</td><td>1,398</td><td>1,730</td><td>1</td><td>35</td><td>36</td></e<=75<>	331	1,363	1,694	332	1,398	1,730	1	35	36
20 <e<=50< td=""><td>620</td><td>5,701</td><td>6,321</td><td>622</td><td>5,833</td><td>6,455</td><td>2</td><td>132</td><td>134</td></e<=50<>	620	5,701	6,321	622	5,833	6,455	2	132	134
10 <e<=20< td=""><td>596</td><td>5,379</td><td>5,975</td><td>597</td><td>5,461</td><td>6,058</td><td>1</td><td>82</td><td>83</td></e<=20<>	596	5,379	5,975	597	5,461	6,058	1	82	83
5 <e<=10< td=""><td>493</td><td>5,013</td><td>5,506</td><td>493</td><td>5,069</td><td>5,562</td><td>0</td><td>56</td><td>56</td></e<=10<>	493	5,013	5,506	493	5,069	5,562	0	56	56
1 <e<=5< td=""><td>828</td><td>9,057</td><td>9,885</td><td>832</td><td>9,082</td><td>9,914</td><td>4</td><td>25</td><td>29</td></e<=5<>	828	9,057	9,885	832	9,082	9,914	4	25	29
E<= 1	1,119	11,470	12,589	1,155	11,643	12,798	36	173	209
Total	4,430	38,203	42,633	4,476	38,713	43,189	46	510	556
Maximum (mSv)	678.80	238.42	678.80	678.80	238.42	678.80	-	-	-
Average (mSv)	23.15	11.05	12.31	22.97	11.14	12.36	-	-	=

^(*) Number of new comers in April 2015 was 556.

^(*) 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					
mSv	TEPCO	Contractors	Total			
100 <e< td=""><td>0</td><td>0</td><td>0</td></e<>	0	0	0			
75 <e<=100< td=""><td>0</td><td>0</td><td>0</td></e<=100<>	0	0	0			
50 <e<=75< td=""><td>0</td><td>0</td><td>0</td></e<=75<>	0	0	0			
20 <e<=50< td=""><td>0</td><td>0</td><td>0</td></e<=50<>	0	0	0			
10 <e<=20< td=""><td>0</td><td>24</td><td>24</td></e<=20<>	0	24	24			
5 <e<=10< td=""><td>0</td><td>202</td><td>202</td></e<=10<>	0	202	202			
1 <e<=5< td=""><td>59</td><td>2,372</td><td>2,431</td></e<=5<>	59	2,372	2,431			
E<= 1	963	7,698	8,661			
Total	1,022	10,296	11,318			
Maximum(mSv)	4.37	17.05	17.05			
Average(mSv)	0.25	0.86	0.80			

^(*) 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	Feb. 2015	Mar. 2015	Apr. 2015	March 2011- April 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>182</td></e<=100<>	0	0	0	182
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>253</td></e<=50<>	0	0	0	253
10 <e<=20< td=""><td>0</td><td>0</td><td>0</td><td>172</td></e<=20<>	0	0	0	172
5 <e<=10< td=""><td>0</td><td>3</td><td>0</td><td>131</td></e<=10<>	0	3	0	131
1 <e<=5< td=""><td>67</td><td>71</td><td>49</td><td>141</td></e<=5<>	67	71	49	141
E<= 1	546	541	515	27
Total	613	615	564	1,136
Maximum (mSv)	3.80	6.40	4.37	102.69
Average (mSv)	0.42	0.47	0.33	37.31

- (*) 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 April 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 April 2015 exceeded 100.