

July 29, 2011

Tokyo Electric Power Company

## **Enhancing controls of internal exposures at Fukushima Daiichi Nuclear Power Station**

### 1. External exposures (new entrants in June)

“Attachment 1” shows the external exposure doses of those who started emergency work in June

<Reference>

“Reference” describes the external *and* internal exposures and its total effective doses of workers who have engaged in emergency work since March and April

**External exposure doses (new entrants in June)**

<b>mSv</b>	<b>TEPCO</b>	<b>Contractors</b>	<b>Total</b>
<b>Over 250</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>200 to 250</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>150 to 200</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>100 to 150</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>50 to 100</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>20 to 50</b>	<b>0</b>	<b>17</b>	<b>17</b>
<b>10 to 20</b>	<b>1</b>	<b>88</b>	<b>89</b>
<b>0 to 10</b>	<b>260</b>	<b>1,942</b>	<b>2,202</b>
<b>Total</b>	<b>261</b>	<b>2,047</b>	<b>2,308</b>
<b>Maximum (mSv)</b>	<b>11.94</b>	<b>38.66</b>	<b>38.66</b>
<b>Average (mSv)</b>	<b>0.75</b>	<b>2.09</b>	<b>1.94</b>

\* The results do not include the exposure doses during the stay inside Main Anti-Earthquake Building and the move to Fukushima Daiichi Nuclear Power Station

## Distribution of Exposure Doses

### 【Scope of coverage】

No. of Emergency Workers	External exposures	Internal exposures		External + Internal exposures
Since March: 3,747	3,747(March)	WBC before July 25	3,695(March) 3,388(April) > Chart 2	3,695(March) 3,388(April) > Chart 3
Since April: 3,776	3,776(April)  > Chart 1	To be evaluated	52(March) 388(April)	52(March) 388(April)

\* The results do not include those who worked outside Fukushima Daiichi Nuclear Power Station.

### 1. External exposure doses

Table 1 below shows the distribution of external exposure doses (from March 11 to 31, from April 1 to 31) [\*1] of those who engaged in emergency works.

[\*1] The results in April do not include the exposure doses during the stay inside Main Anti-Earthquake Building and the move to Fukushima Daiichi Nuclear Power Station. However, such data as glass badges may be included. The results in March and April include the double-counted and those who do not need to be evaluated.

**Table 1.**

mSv	March			April		
	TEPCO	Contractor	Total	TEPCO	Contractor	Total
Over 250	0	0	0	0	0	0
200 to 250	0	0	0	0	0	0
150 to 200	6	3	9	0	0	0
100 to 150	22	8	30	0	0	0
50 to 100	107	55	162	0	3	3
20 to 50	267	144	411	7	51	58
10 to 20	558	323	881	22	247	269
0 to 10	678	1,576	2,254	608	2,838	3,446
Total	1,638	2,109	3,747	637	3,139	3,776
Maximum (mSv)	182.3	199.4	199.4	42.7	65.9	65.9
Average (mSv)	19.0	9.1	13.5	2.1	3.3	3.1

## 2. Internal exposure doses (tentative)

Table 2 below shows the distribution of tentative internal exposure doses [\*2] of site workers measured with WBC until July 25, out of those who have once experienced emergency works.

[\*2] Tentative internal exposure doses: if a worker does not measure with WBC after he/she was exposed to radiation, a tentative evaluation will be conducted under the condition that the worker took in all amounts of radioactive materials (since March 12, if engaged initially) in which case we assume the amounts reach the maximum. The evaluation includes either the behavioral survey re-evaluation or the one conducted by JAEA.

**Table 2.**

mSv	March			April		
	TEPCO	Contractor	Total	TEPCO	Contractor	Total
Over 250	5	0	5	0	0	0
200 to 250	1	0	1	0	0	0
150 to 200	1	0	1	0	0	0
100 to 150	5	1	6	0	0	0
50 to 100	38	44	82	0	0	0
20 to 50	180	99	279	0	8	8
10 to 20	387	260	647	2	38	40
0 to 10	1,018	1,656	2,674	635	2,705	3,340
Total	1,635	2,060	3,695	637	2,751	3,388
Maximum (mSv)	590.0	112.5	590.0	18.8	42.9	42.9
Average (mSv)	12.2	6.9	9.2	0.3	0.8	0.7

## 3. Total doses of internal and external exposures

The total doses of internal and external exposures of site workers who have conducted internal exposures (tentative: the above section) are shown in Table 3 below.

**Table 3.**

mSv	March			April		
	TEPCO	Contractor	Total	TEPCO	Contractor	Total
Over 250	6	0	6	0	0	0
200 to 250	0	2	2	0	0	0
150 to 200	12	2	14	0	0	0
100 to 150	69	17	86	0	0	0
50 to 100	193	115	308	0	5	5
20 to 50	510	350	860	10	78	88
10 to 20	501	482	983	22	282	304
0 to 10	344	1,092	1,436	605	2,386	2,991
Total	1,635	2,060	3,695	637	2,751	3,388
Maximum (mSv)	670.4	238.4	670.4	45.6	67.6	67.6
Average (mSv)	31.3	16.1	22.8	2.3	4.4	4.0