

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

(Updated on 27 December 2018)

1 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	September 2018			October 2018			November 2018		
	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	0	0	0	0	0	0	0	0
5<E≤10	0	8	8	0	18	18	0	35	35
1<E≤5	17	469	486	26	567	593	13	608	621
E≤1	985	5,684	6,669	976	5,579	6,555	978	5,568	6,546
Total	1,002	6,161	7,163	1,002	6,164	7,166	991	6,211	7,202
Maximum (mSv)	1.90	8.00	8.00	4.17	8.20	8.20	2.95	8.96	8.96
Average (mSv)	0.11	0.28	0.26	0.15	0.35	0.32	0.11	0.37	0.33

(*) 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 April 2016 (Internal and External)

Effective dose (E) mSv	April 2016 - October 2018			April 2016 - November 2018			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	1	1	0	1	1	0	0	0
50<E≤75	0	53	53	0	58	58	0	5	5
20<E≤50	20	1,198	1,218	22	1,238	1,260	2	40	42
10<E≤20	117	1,869	1,986	118	1,896	2,014	1	27	28
5<E≤10	159	2,076	2,235	166	2,114	2,280	7	38	45
1<E≤5	508	4,464	4,972	521	4,448	4,969	13	-16	-3
E≤1	1,266	8,349	9,615	1,248	8,413	9,661	-18	64	46
Total	2,070	18,010	20,080	2,075	18,168	20,243	5	158	163
Maximum (mSv)	30.68	75.50	75.50	31.44	75.50	75.50	-	-	-
Average (mSv)	2.29	5.18	4.88	2.34	5.26	4.96	-	-	-

(*) 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).

(*) As a new 5-year dose period began in April 2016, the 5-year accumulated dose will be described in April 2017 or later.

(3) Combined Cumulative Effective Dose from April 2018 (Internal and External)

Effective dose (E) mSv	April 2018 - October 2018			April 2018 - November 2018			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	0	0	0	0	0	0	0	0
10<E≤20	0	248	248	0	317	317	0	69	69
5<E≤10	24	576	600	32	698	730	8	122	130
1<E≤5	231	2,218	2,449	241	2,381	2,622	10	163	173
E≤1	1,116	5,673	6,789	1,116	5,601	6,717	0	-72	-72
Total	1,371	8,715	10,086	1,389	8,997	10,386	18	282	300
Maximum (mSv)	9.27	17.50	17.50	9.78	18.91	18.91	-	-	-
Average (mSv)	0.63	1.57	1.44	0.70	1.55	1.43	-	-	-

(*) 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) Distribution of sum of external exposure dose and internal exposure dose of workers engaged in specified high-dose work*

(Specified high-dose work has not been performed since October 2015.)

Effective dose (E) mSv	March 2011- September 2015
100<E	1
75<E≤100	191
50<E≤75	233
20<E≤50	267
10<E≤20	186
5<E≤10	129
1<E≤5	145
E≤1	51
Total	1,203
Maximum (mSv)	102.69
Average (mSv)	36.49

(*) Workers engaged in work to which dose limit (100 mSv) during emergency work is applied in line with Article 7 of the Ordinance on Prevention of Ionizing Radiation Hazards.

Specifically, these workers are those who are engaged in work to maintain the functions of a nuclear reactor facility or spent fuel storage pool, or in work to maintain functions to suppress or prevent the possible release of a large amount of radioactive materials due to a failure of or damage to the nuclear reactor facility at a location around the nuclear reactor facility, steam turbine, or accessory facility where hourly dose may exceed 0.1 mSv.

It should be noted that only TEPCO employees have so far been engaged in specified high-dose work.

(*) Workers engaged in specified high-dose work in each month is the number of workers registered as workers engaged in specified high-dose work in that month.

However, the total of March 2011 to September 2015 includes workers released from specified high-dose work.

(*) 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.