

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

(Updated on 27 February 2019)

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	November 2018			December 2018			January 2019		
	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	4	4	0	0	0
5<E≤10	0	42	42	0	55	55	0	28	28
1<E≤5	13	626	639	21	621	642	16	521	537
E≤1	1,009	5,556	6,565	981	5,562	6,543	903	5,542	6,445
Total	1,022	6,224	7,246	1,002	6,242	7,244	919	6,091	7,010
Maximum (mSv)	2.95	9.88	9.88	4.52	14.10	14.10	2.32	7.81	7.81
Average (mSv)	0.11	0.39	0.35	0.13	0.42	0.38	0.11	0.35	0.31

(*) 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 - December 2018			April 2016 - January 2019			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	4	4	0	5	5	0	1	1
50<E≤75	0	64	64	0	66	66	0	2	2
20<E≤50	26	1,273	1,299	29	1,308	1,337	3	35	38
10<E≤20	118	1,931	2,049	118	1,977	2,095	0	46	46
5<E≤10	171	2,114	2,315	174	2,164	2,338	3	20	23
1<E≤5	521	4,448	4,969	529	4,434	4,963	8	-14	-6
E≤1	1,253	8,443	9,696	1,249	8,462	9,711	-4	19	15
Total	2,089	18,307	20,396	2,099	18,416	20,515	10	109	119
Maximum (mSv)	32.48	75.68	75.68	34.11	77.13	77.13	-	-	-
Average (mSv)	2.38	5.37	5.06	2.42	5.45	5.14	-	-	-

(*) 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 2018 (Internal and External)

Effective dose (E) mSv	April 2018 - December 2018			April 2018 - January 2019			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	3	472	475	6	616	622	3	144	147
5<E≤10	49	746	795	56	747	803	7	1	8
1<E≤5	237	2,432	2,669	246	2,553	2,799	9	121	130
E≤1	1,118	5,606	6,724	1,115	5,536	6,651	-3	-70	-73
Total	1,407	9,256	10,663	1,423	9,452	10,875	16	196	212
Maximum (mSv)	10.55	19.90	19.90	11.66	19.90	19.90	-	-	-
Average (mSv)	0.78	2.03	1.86	0.84	2.21	2.03	-	-	-

(*) 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.