

Evaluation of the exposure dose of workers engaged in radiation work at
the Fukushima Daiichi Nuclear Power Station

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TEPCO has been evaluating the exposure dose of workers who engaged in radiation work at the Fukushima Daiichi Nuclear Power Station under two types, internal and external exposure to radiation, and has submitted the evaluation results to the Ministry of Health, Labour and Welfare regularly.

TEPCO today submitted to the Ministry of Health, Labour and Welfare a report on the exposure dose evaluation the data of which are those we collected until the end of October 2025. Here is part of the report: the maximum value of the external exposure dose among the workers who engaged in the work at the power station in October was 10.50 mSv, and regarding the internal exposure dose, no significant value was measured.

Exposure Dose Distribution

1. Effective Dose from External Exposure

Table 1 shows the distribution of external exposure dose of workers who were involved in radiation work at the Fukushima Daiichi Nuclear Power Station for the past three months.

Table 1. External Exposure Dose

Dose Ranges (mSv)	August 2025			September 2025			October 2025		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 100	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	0	0	0	0	0	0	0	0
20-50	0	0	0	0	0	0	0	0	0
10-20	0	0	0	0	0	0	0	2	2
5-10	0	43	43	0	46	46	0	47	47
1-5	1	318	319	8	353	361	16	504	520
1 or less	1038	6347	7385	1009	6443	7452	999	6595	7594
Total	1039	6708	7747	1017	6842	7859	1015	7148	8163
Maximum (mSv)	1.3	8.4	8.4	1.6	9.9	9.9	4.49	10.50	10.50
Average (mSv)	0.03	0.22	0.20	0.06	0.25	0.22	0.08	0.29	0.27

• The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.

2. Sum of External and Internal Exposure Dose (Effective Dose)

Table 2 shows the distribution of cumulative exposure dose of workers who are involved in radiation work at Fukushima Daiichi for five years, starting on April 1, 2021. Table 3 shows the distribution of cumulative exposure dose in the fiscal year of 2025. Two different periods of time are shown in the Table 2: from April 1, 2021 to September 30, 2025 and from April 1, 2021 to October 31, 2025, and in the Table 3: from April 1, 2025 to September 30, 2025 and from April 1, 2025 to October 31 2025, for comparison.

Table 2. Cumulative Exposure Dose for Five Years

Dose Ranges (mSv)	April 2021 - September 2025			April 2021 - October 2025			Difference		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 100	0	0	0	0	0	0	0	0	0
75-100	0	1	1	0	1	1	0	0	0
50-75	0	165	165	0	177	177	0	12	12
20-50	39	1530	1569	39	1544	1583	0	14	14
10-20	79	1999	2078	82	2034	2116	3	35	38
5-10	150	1829	1979	151	1845	1996	1	16	17
1-5	382	2974	3356	384	3010	3394	2	36	38
1 or less	1417	9687	11104	1417	9785	11202	0	98	98
Total	2067	18185	20252	2073	18396	20469	6	211	217
Maximum (mSv)	39.52	75.32	75.32	40.96	75.78	75.78	-	-	-
Average (mSv)	2.12	5.85	5.47	2.15	5.89	5.51	-	-	-

• The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.

• No significant internal exposure has been reported since October 2011.

Table 3. Cumulative Exposure Dose in the Fiscal Year of 2025

Dose Ranges (mSv)	April 2025 - September 2025			April 2025 - October 2025			Difference		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 100	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	0	0	0	0	0	0	0	0
20-50	0	0	0	0	0	0	0	0	0
10-20	0	169	169	0	256	256	0	87	87
5-10	2	436	438	7	525	532	5	89	94
1-5	94	1396	1490	108	1595	1703	14	199	213
1 or less	1266	6726	7992	1260	6732	7992	-6	6	0
Total	1362	8727	10089	1375	9108	10483	13	381	394
Maximum (mSv)	5.9	19.6	19.6	7.99	19.77	19.77	-	-	-
Average (mSv)	0.23	1.11	0.99	0.28	1.30	1.16	-	-	-

• The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.

3. Sum of External and Internal Exposure Dose of Workers Exposed to Especially High Radiation (Effective Dose)

Table 4 shows the distribution of cumulative exposure dose of workers exposed to especially high radiation.*¹

Table 4. Cumulative Exposure Dose (workers exposed to especially high radiation)

Dose Ranges (mSv)	March 2011 - September 2015
Above 100	1
75-100	191
50-75	233
20-50	267
10-20	186
5-10	129
1-5	145
1 or less	51
Total	1203
Maximum (mSv)	102.69
Average (mSv)	36.49

(Since October 2015, TEPCO Holdings has opted not to report to the Labour Standards Inspection Office about workers exposed to especially high radiation.)

*1. Workers exposed to especially high radiation means workers who are involved in operations in which they could be exposed to the emergency exposure dose limit (100 mSv), which is stipulated in "Ordinance on Prevention of Ionizing Radiation Hazards, Chapter 7." In more detail, they are workers engaged in the work to maintain the function of the cooling facility to cool down the reactor facility or the spent fuel tank in the reactor facility, the steam turbine and its related facilities or the surrounding area where the radiation doses exceed 0.1 mSv/h. Or they are workers who would engage in keeping running the function to control or prevent the release of a large number of radioactive materials should it be likely to occur due to malfunction or damage of the reactor facility.

So far workers who have worked as "workers exposed to especially high radiation" are all TEPCO employees.

*2. The figures in the cumulative data during the period from March 2011 to September 2015 in Table 4 above include the numbers of workers who have been reported to work as “workers exposed to especially high radiation” at least once.

*3. The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or the dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.

*4. The figure shown in the dose range, “Above 100mSv,” in the cumulative data during the period from March 2011 to September 2015 is the figure when the March 2011 data of the internal exposure dose were reevaluated in July 2013.

4. Equivalent Dose

Table 5 and Table 6 show equivalent dose to the skin and the lens of the eye of the workers, respectively, who were involved in radiation work at the Fukushima Daiichi Nuclear Power Station for the past three months.

Table 5. Equivalent Dose to the Skin

Dose Ranges (mSv)	August 2025			September 2025			October 2025		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 500	0	0	0	0	0	0	0	0	0
300-500	0	0	0	0	0	0	0	0	0
250-300	0	0	0	0	0	0	0	0	0
200-250	0	0	0	0	0	0	0	0	0
150-200	0	0	0	0	0	0	0	0	0
100-150	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	0	0	0	0	0	0	0	0
20-50	0	0	0	0	0	0	0	0	0
10-20	0	7	7	0	6	6	0	2	2
5-10	0	52	52	0	59	59	0	49	49
1-5	1	377	378	13	425	438	16	564	580
1 or less	1038	6272	7310	1004	6352	7356	999	6533	7532
Total	1039	6708	7747	1017	6842	7859	1015	7148	8163
Maximum (mSv)	1.3	17.3	17.3	4.3	16.2	16.2	4.49	10.50	10.50
Average (mSv)	0.03	0.27	0.24	0.07	0.30	0.27	0.08	0.32	0.29

• The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or the dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.

• Equivalent dose is a measure of the radiation dose to organs and tissues, and the equivalent dose limit to the skin is 500 mSv/year (the emergency exposure dose limit is 1 Sv).

• Equivalent dose to the skin is measured at a depth of 70 micrometers from the skin surface. When the equivalent dose is measured with a dosimeter other than the one put on around the chest and the abdomen, for example, a finger dosimeter, the maximum measurement value is counted as the equivalent dose.

Table 6. Equivalent Dose to the Lens of the Eye

Dose Ranges (mSv)	August 2025			September 2025			October 2025		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 150	0	0	0	0	0	0	0	0	0
100-150	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	0	0	0	0	0	0	0	0
20-50	0	0	0	0	0	0	0	0	0
10-20	0	0	0	0	2	2	0	2	2
5-10	0	57	57	0	51	51	0	49	49
1-5	1	327	328	8	366	374	16	564	580
1 or less	1038	6324	7362	1009	6423	7432	999	6533	7532
Total	1039	6708	7747	1017	6842	7859	1015	7148	8163
Maximum (mSv)	1.3	8.8	8.8	1.6	10.7	10.7	4.49	10.50	10.50
Average (mSv)	0.03	0.24	0.21	0.06	0.26	0.24	0.08	0.32	0.29

- The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or the dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.
- Equivalent dose is a measure of the radiation dose to organs and tissues, and the equivalent dose limit to the lens of the eye is 50 mSv/year and 100 mSv/5 years (the emergency exposure dose limit is 300 mSv). The equivalent dose limit to the lens of the eye before April 1, 2021 was 150mSv/year (the emergency exposure dose limit was 300 mSv).
- The equivalent dose to the lens of the eye is measured at a depth of 1 centimeter for neutron ray, 3 millimeters for X-ray, gamma ray and beta ray from the skin surface. However, as for X-ray, gamma ray and beta ray, it is measured at a depth of 1 centimeter or 70 micrometer when deemed appropriate with consideration for radiation type and energy type (since April, 2021).

5. Cumulative Equivalent Dose

Table 7 and Table 8 show the distribution of cumulative equivalent dose to the skin and the lens of the eye of the workers, respectively, who were involved in radiation work at the Fukushima Daiichi Nuclear Power Station during two different periods of time, from April 1, 2025 to September 30, 2025 and from April 1, 2025 to October 31, 2025 for comparison.

Table 9 shows the distribution of cumulative exposure dose for five years, starting on April 1, 2021: from April 1, 2021 to September 30, 2025 and from April 1, 2021 to October 31, 2025 for comparison.

Table 7. Equivalent Dose to the Skin

Dose Ranges (mSv)	April 2025 - September 2025			April 2025 - October 2025			Difference		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 500	0	0	0	0	0	0	0	0	0
300-500	0	0	0	0	0	0	0	0	0
250-300	0	0	0	0	0	0	0	0	0
200-250	0	0	0	0	0	0	0	0	0
150-200	0	0	0	0	0	0	0	0	0
100-150	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	4	4	0	4	4	0	0	0
20-50	0	15	15	0	17	17	0	2	2
10-20	0	228	228	0	336	336	0	108	108
5-10	3	501	504	8	578	586	5	77	82
1-5	94	1425	1519	111	1604	1715	17	179	196
1 or less	1265	6554	7819	1256	6569	7825	-9	15	6
Total	1362	8727	10089	1375	9108	10483	13	381	394
Maximum (mSv)	5.9	65.8	65.8	7.99	66.50	66.50	-	-	-
Average (mSv)	0.24	1.35	1.20	0.30	1.54	1.38	-	-	-

• The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or the dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.

• Equivalent dose is a measure of the radiation dose to organs and tissues, and the equivalent dose limit to the skin is 500 mSv/year (the emergency exposure dose limit is 1 Sv).

• Equivalent dose to the skin is measured at a depth of 70 micrometers from the skin surface. When the equivalent dose is measured with a dosimeter other than the one put on around the chest and the abdomen, for example, a finger dosimeter, the maximum measurement value is counted as the equivalent dose.

Table 8. Equivalent Dose to the Lens of the Eye

Dose Ranges (mSv)	April 2025 - September 2025			April 2025 - October 2025			Difference		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 150	0	0	0	0	0	0	0	0	0
100-150	0	0	0	0	0	0	0	0	0
75-100	0	0	0	0	0	0	0	0	0
50-75	0	0	0	0	0	0	0	0	0
20-50	0	0	0	0	0	0	0	0	0
10-20	0	221	221	0	296	296	0	75	75
5-10	2	427	429	7	529	536	5	102	107
1-5	94	1403	1497	108	1628	1736	14	225	239
1 or less	1266	6676	7942	1260	6655	7915	-6	-21	-27
Total	1362	8727	10089	1375	9108	10483	13	381	394
Maximum (mSv)	5.9	16.9	16.9	7.99	16.92	16.92	-	-	-
Average (mSv)	0.23	1.19	1.06	0.29	1.39	1.24	-	-	-

- The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or the dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.
- Equivalent dose is a measure of the radiation dose to organs and tissues, and the equivalent dose limit to the lens of the eye is 50 mSv/year and 100 mSv/5 years (the emergency exposure dose limit is 300 mSv).
- The equivalent dose to the lens of the eye is measured at a depth of 1 centimeter for neutron ray, 3 millimeters for X-ray, gamma ray and beta ray from the skin surface. However, as for X-ray, gamma ray and beta ray, it is measured at a depth of 1 centimeter or 70 micrometer when deemed appropriate with consideration for radiation type and energy type.

Table 9. Equivalent Dose to the Lens of the Eye: Cumulative Exposure Dose for Five Years

Dose Ranges (mSv)	April 2021 - September 2025			April 2021 - October 2025			Difference		
	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total	TEPCO Employees	Contractors	Total
Above 100	0	0	0	0	0	0	0	0	0
75-100	0	3	3	0	4	4	0	1	1
50-75	0	204	204	0	222	222	0	18	18
20-50	42	1608	1650	42	1627	1669	0	19	19
10-20	76	2020	2096	81	2045	2126	5	25	30
5-10	154	1750	1904	154	1775	1929	0	25	25
1-5	385	2951	3336	386	2987	3373	1	36	37
1 or less	1410	9649	11059	1410	9736	11146	0	87	87
Total	2067	18185	20252	2073	18396	20469	6	211	217
Maximum (mSv)	39.52	77.00	77.00	40.98	77.66	77.66	-	-	-
Average (mSv)	2.15	6.15	5.74	2.18	6.21	5.80	-	-	-

- The values of the exposure dose and the number of the workers in the table above are subject to change, because there are cases that APD data are replaced with monthly dose data measured by integral dosimeters. Or the dose data of workers who wore only an integral dosimeter (ex., workers who entered only the Seismic Isolation Building) need to be updated in the table after the publication of the data.
- Equivalent dose is a measure of the radiation dose to organs and tissues, and the equivalent dose limit to the lens of the eye is 50 mSv/year and 100 mSv/5 years (the emergency exposure dose limit is 300 mSv).
- The equivalent dose to the lens of the eye is measured at a depth of 1 centimeter for neutron ray, 3 millimeters for X-ray, gamma ray and beta ray from the skin surface. However, as for X-ray, gamma ray and beta ray, it is measured at a depth of 1 centimeter or 70 micrometer when deemed appropriate with consideration for radiation type and energy type.