

Current implementation status of the long-term health care for emergency workers at the TEPCO Fukushima Daiichi Nuclear Power Plant

The Ministry of Health, Labour and Welfare (MHLW), pursuant to applicable Acts and ordinances or guidelines^(Note 1), is providing a long-term health care for emergency workers^(Note 2) at the TEPCO Fukushima Daiichi Nuclear Power Plant, such as a cancer screening, etc., based on the radiation exposure dose of the workers. In addition, the MHLW has developed a database which registers the radiation exposure doses, medical examination results, etc. for efficient management of the data.

Today, those data were compiled based on reports from each employer to make the larger report of the current implementation status of the long-term health care for emergency workers.

(Note 1) Guidelines on Maintaining and Improving Health of Emergency Workers at the TEPCO Fukushima Daiichi Nuclear Power Plant (Public Notice No. 5, 11 October 2011)

(Note 2) For workers to whom the emergency radiation exposure dose limit (100 mSv; increased to 250 mSv for the period from 14 March 2011 to 16 December 2011) is applied. The limit of 250 mSv is applied to workers engaged in the emergency work, in principle, before 15 December 2011.

1. Issuance of registration cards

The MHLW has issued “The TEPCO Fukushima Daiichi Nuclear Power Plant Emergency Worker Registration Card” (hereinafter referred to as “registration card”) to emergency workers to certify that his or her data are registered in the long-term healthcare management system to emergency workers.

As of August 2013, the registration cards were mailed directly to 19,284 workers out of 19,346 emergency workers during the period between July 2012 to June 2013 excluding 62 workers whose contact information was missing. The 2,470 mails were returned due to unknown addresses or other reasons. Those mails were sent again later to workers whose addresses were identified by inquiring primary contractors about their addresses or calling the workers directly, etc.

The registration cards have been issued to 18,874 workers out of 19,346 emergency workers (97.6%) to date. Investigations of addresses have been continued for remaining 472 workers to whom the registration card has not been sent (410 workers due to unknown new addresses or long-term absence, and 62 workers due to missing contact information)^(Note).

(Note) The radiation exposure doses for the 472 workers are 7.67 mSv on average and 45.07 mSv for the maximum.

2. Issuance of radiation passbook

The MHLW has issued “designated emergency worker radiation exposure dose passbook” (hereinafter referred to as “passbook”)^(Note) to the emergency workers whose effective dose during the period when engaged in the emergency work exceed 50 mSv (hereinafter referred to as

“designated emergency workers”).

The passbooks are issued upon the application from the eligible workers. An application form along with the letter encouraging the application was mailed to each eligible worker in September 2012 (Receipt of the mail by each worker has been verified). For those workers who have not yet applied, a request was sent in October 2012, along with a list of workers who have not yet applied to their employers in hope of the employers to give encouragement to workers in applying for the passbook. The letters of encouragement were sent again in February 2013 to employers whose employees had not yet applied. This campaign for encouraging workers to apply for the passbook will be continued. As of August 2013, the radiation passbooks have been issued to 747 workers (82.7%) out of 903 designated emergency workers. The recommendation for application was also provided to the 12 workers who were identified eligible to receive the passbook when the internal exposure doses were reevaluated after the announcement on 5 July 2013.

(Note) The passbook will be issued upon the application from eligible workers. Records of radiation exposure dose received in the past and the medical examination results can also be filed in the passbook. The passbook holders are eligible to have cancer screenings at medical institutes designated by the MHLW based on their radiation exposure doses.

3. Registration of the medical examination results in the database

(1) Results of the survey on the implementation status of medical examination for the designated emergency workers

The MHLW surveyed employers about current implementation status of medical examinations for the designated emergency workers conducted in the period from October 2011 to September 2012 (The medical examinations were provided to workers whose effective doses during the period engaged in the emergency work exceeded 50 mSv). The results are presented in Table 1.

Table 1 Results of the current implementation status of medical examinations for the designated emergency workers (October 2011 to September 2012)

	Special medical examination			General medical examination (Designated medical examination)		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Number of registered workers ^(Note 1)	517	165	682	517	170	687
Number of eligible workers ^(Note 2, Note 3)	519	176	695	519	176	695
Registration rate (%)	99.6	93.8	98.1	99.6	96.6	98.8

(Note 1) Includes latest medical examinations conducted before October 2011.

(Note 2) The number of responses. The response rates were 89.8% (176 out of 196) from contractors and 100% (519 out of 519) from TEPCO (as of 6 August 2013).

(Note 3) Limited to workers who had been engaged in radiation work between the period from October 2011 to September 2012.

- (2) Registration of medical examination^(Note 1) results of the designated emergency workers in the database

The results of surveys are shown in Table 2, which demonstrates the number of registered ionizing radiation medical examination results as of the end of February 2013 among those conducted between the period from October 2011; when Article 59, paragraph 2 of the Ionizing Radiation Ordinance was enforced; to September 2012.

Table 2 The number of ionizing radiation medical examination results registered in the database
(October 2011 to September 2012)

	Special medical examination			General medical examination (Designated medical examination)		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Number of registered workers ^(Note 2)	1,745	7,427	9,172	1,742	5,941	7,683
Number of eligible workers ^(Note 3)	2,070	9,910	11,980	2,070	9,910	11,980
Registration rate (%)	84.3%	74.9%	76.6%	84.2%	59.9%	64.1%

(Note 1) The Ordinance on Prevention of Ionizing Radiation Hazards (hereinafter referred to as “Ionizing Radiation Ordinance”) and Ordinance on Industrial Safety and Health stipulate that employer shall provide ionizing radiation medical examinations and general medical examinations (designated medical examination) to workers engaged in radiation work once within six months. For emergency workers, the results of the medical examinations should be submitted to the MHLW pursuant to Article 59, paragraph 2 of the Ionizing Radiation Ordinance. Those data will be registered in the database.

(Note 2) Includes latest medical examinations conducted before October 2011 and excludes those reported after March 2013.

(Note 3) Limited to workers who were engaged in radiation work between the period from October 2011 to September 2012.

- (3) Actions by the MHLW

The MHLW provided an instruction to TEPCO and 81 primary contractors who employ workers whose medical examination results have not been reported to conduct the survey about the implementation status of the medical examinations and to investigate causes to prevent recurrence. Furthermore, the MHLW directed TEPCO to submit any medical examination results that had not been reported to the MHLW soon.

4. Registration of results of the cancer screening, etc. based on the guideline in the database

- (1) Encouragement for conducting a cancer screening, etc.^(Note) based on the guidelines

After presenting the list of the eligible designated emergency workers, the MHLW requested employers of the designated emergency workers to properly implement the cancer screening, etc., several times between the period from June to November 2012 .

In addition, the MHLW will conduct a survey on current address, affiliation, etc. of all of the designated emergency workers once a year in order to track workers who moved from their original address or terminated employment without having a cancer screening. (the survey for the year 2013 was completed in June).

(Note) “The Guidelines on Maintaining and Improving Health of Emergency Workers at the TEPCO Fukushima Daiichi Nuclear Power Plant”(hereinafter referred to as “the Guideline”) requires employers to provide designated emergency workers whose effective dose exceeds 50 mSv with ophthalmological examination for cataract and those whose effective dose exceeds 100mSv with the cancer screening, once in approximately one year. For those workers who terminated employment, the national government will provide these medical examinations. The results of the medical examinations are submitted to the MHLW upon receiving examinees’ consent and will be registered in the database.

(2) Results of survey on the implementation status of the cancer screening for designated emergency workers specified in the guideline

The MHLW surveyed employers concerning the implementation status of medical examinations for designated emergency workers (whose exposure dose exceeded 50 mSv during the period when they are engaged in the emergency work) as shown in Table 3.

Table 3 Implementation status of medical examination specified in the guidance for designated emergency workers
(October 2011 to March 2013)

	Ophthalmological examinations for cataract (Using a slit light microscope)			Cancer screening, etc.		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Number of registered workers (Note 1)	389	200	589	139	23	162
Number of eligible workers (Note 2)	563	300	863	142	29	171
Registration rate (%)	69.1	66.7	68.3	97.9	79.3	94.7

(Note 1) The number of responses. The response rates were 91.5% (300 out of 328) for contractors and 100% (563 out of 563) for TEPCO (As of 6 August 2013).

(Note 2) Workers eligible to have ophthalmological examinations are those who received doses exceeding 50 mSv. Workers eligible to have cancer screening are those who received doses exceeding 100 mSv during the period when they are engaged in the emergency work.

(3) Registration of cancer screening results, etc. in the database based on the guidance for designated emergency workers

Table 4 demonstrates the number of cancer screenings conducted between the period from October 2011, when the guidelines were established, to the end of September 2012, reported to the MHLW and registered in the database by the end of February 2013. The results of the cancer screenings, for workers who terminated employment, conducted by the national government, and reported to the MHLW, are shown in Table 4.

Table 4 The number of cancer screening results specified in the guidelines for designated workers registered in the database

(Cancer screenings provided by employers)

(October 2011 to September 2012)

	Ophthalmological examinations for cataract (Using a slit light microscope)			Cancer screening, etc.		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Number of registered workers ^(Note 1)	0	102	102	105	7	112
Number of eligible workers ^(Note 2, Note 3)	563	225	788	142	16	158
Registration rate (%)	0.0	45.3	12.9	73.9	43.8	70.9

(Note 1) Includes latest medical examinations conducted before October 2011. The number of eye inspection is zero for TEPCO because tests for 389 workers conducted in the period between July 2012 to March 2013 are out of the scope of the survey. The data collected after March 2013 are also excluded.

(Note 2) Ophthalmological examinations are provided to workers whose radiation exposure doses exceed 50 mSv, and cancer screenings are given to workers whose radiation exposure doses exceed 100 mSv.

(Note 3) (a) Workers who are engaged in radiation work now or (b) Workers who are engaged in work other than radiation work (limited to those workers who have been continuously employed by the large scale employers from the time they were engaged in the emergency work). (As of August 2012)

Table 5 The number of cancer screening results specified in the guidelines for designated workers registered in the database

(Provided by the national government)

(October 2011 to March 2013)

	Ophthalmological examinations for cataract (Using a slit light microscope)	Cancer screening, etc.
Number of registered workers	44	7
Number of eligible workers ^(Note 1, Note 2)	115	15
Registration rate (%)	38.3	46.7

(Note 1) Ophthalmological examinations are provided to workers whose radiation exposure doses exceed 50 mSv. Cancer screenings are given to workers whose radiation exposure doses exceed 100 mSv.

(Note 2) Limited to (a) workers who are not engaged in radiation work now or (b) workers who are engaged in work other than radiation work (excluding those workers who have been continuously employed by the large scale employers from the time they were engaged in the emergency work). (As of August 2012)

(4) Actions by the MHLW

The MHLW provided an instruction to TEPCO and 50 contractors that employ workers whose cancer screening results have not been reported to direct encouragement to workers to have cancer screening, etc. so that everyone who is interested can have the ophthalmological examinations for cataract and the cancer screening.

In addition, the MHLW instructed employers to submit medical examination results as soon as

possible if they have not yet been submitted to the MHLW with the examinees' consent.

The MHLW will conduct a survey on the designated emergency workers who terminated employment regarding their current conditions once a year to identify their status and encourage them to receive medical examinations directly from the MHLW.

5. Consultation at the health consultation and guidance desk

The MHLW has operated the health consultations and guidance desk for emergency workers as a commissioned project. Consultation by phone is available by calling a toll free number from anywhere in Japan. If reserved, face to face consultation and health guidance will be provided by a medical doctor (Toll free number 0120-808-609).

The status of the consultation at the health consultation and guidance desks is shown in Table 6 between the period from April 2012 to March 2013.

Table 6 Number of cases (April 2012- March 2013)

Total number	By telephone	By face-to-face	By writing or others
173	154	17	2

Table 7 Type of consultations (Cumulative number)

1. The effect of radiation exposure dose on our health	<u>102</u>
· Relationship between present health condition and radiation exposure dose	56
· Possibility for applying for workmen's compensation given the present health conditions	24
· Others	22
2. Long-term health care system	<u>104</u>
· Inquiry about the registration card (utilization, modification procedures, or not received)	59
· Inquiry about medical examinations and cancer screenings	45
3. Inquiry about exposure dose	<u>29</u>
· Inquiry from workers	24
· Inquiry from families	5
4. Health care strategies in the future	<u>83</u>
· Strategies for maintaining health	46
· Guidance or consultation about medical treatments	37
5. Consultation from employers	<u>16</u>
· Inquiry about healthcare of their employees	16
6. Others	<u>48</u>