

Current Status of Long-term Health Care of Emergency Workers at the TEPCO Fukushima Daiichi Nuclear Power Plant

14 February 2014

Based on laws and regulations, as well as on guidelines,^(Note 1) the Ministry of Health, Labour and Welfare (MHLW) has been providing long-term health care targeting emergency workers at the TEPCO Fukushima Daiichi Nuclear Power Plant,^(Note 2) such as through conducting cancer screening, etc. depending on workers' exposure doses. At the same time, the Ministry has been developing a database by registering workers' exposure doses and health checkup results in order to enhance the efficiency of such initiatives.

The MHLW arranged data based on reports submitted by employers and compiled the current status of the initiatives for long-term health care.

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

(Note 2) Workers to whom the emergency exposure limit (100mSv in a normal situation; 250mSv during the period from 14 March to 16 December 2011) applies; those engaged in work at the plant on 15 December 2011 or before, in principle

1. Issuance of Database Registration Certificates

The MHLW issues a database registration certificate for an emergency worker at the TEPCO Fukushima Daiichi Nuclear Power Plant, which proves that the holder's data are registered in the long-term health care system (hereinafter referred to as the "database registration certificate").

Among **19,346** emergency workers (as of August 2013), database registration certificates were sent by post directly to 19,284 workers, excluding 62 whose addresses were unknown, during the period from July 2012 to June 2013. For 2,470 of them, whose certificates were sent back due to a wrong address or other reasons, the Ministry sent certificates again at another time or endeavored to obtain new addresses by making inquiries with their former employers or making phone calls to the relevant workers, thereby trying to deliver certificates to all of these workers.

As of now, database registration certificates have been issued to **18,874 emergency workers (97.6%)** out of the 19,346. The MHLW will continue efforts to obtain addresses for **472 workers (new address unknown or a long-term absence at the known address: 410; addresses unknown: 62)**^(Note) to whom certificates have yet to be delivered.

(Note) For these 472 workers, the average exposure dose during emergency work was 7.67mSv and the maximum individual exposure dose was 45.07mSv.

2. Issuance of Recording Notebook

The MHLW issues an emergency worker who was exposed to radiation exceeding 50mSv (effective dose) during emergency work (hereinafter referred to as a "designated emergency worker") with **an exposure dose recording notebook for the designated emergency worker**^(Note) (hereinafter referred to as the "recording notebook").

The recording notebook is issued based on an application filed by an applicable worker. The Ministry sent application forms to all applicable workers in September 2012 to encourage them to

file applications (the Ministry confirmed that application forms were delivered to all of them). Furthermore, in October 2012, the Ministry requested relevant workplaces to urge their employees to file applications, while presenting a list of the relevant workers who had yet to file an application. Also in February 2013, the Ministry sent letters to workplaces employing those workers who had failed to file an application to encourage such workers to file applications. The MHLW will continue to encourage applicable workers to apply for the recording notebook.

As of August 2013, recording notebooks had been issued to **747 designated emergency workers (82.7%)** out of the **903 known to be designated emergency workers**. Also, with regard to the 12 workers who became applicable as a result of the re-evaluation of committed effective doses publicized on 5 July 2013, the Ministry encouraged them to file applications.

(Note) A recording notebook is issued based on an individual worker's application. Records of health checkups and exposure doses may be filed in the notebook. Holders may receive cancer screening, etc. or other health checkups at medical institutions designated by the MHLW, depending on their exposure doses, even after they have quit their jobs.

3. Registration in the Database of Health Checkup Results

(1) Results of the Survey on Health Checkups Targeting Designated Emergency Workers

In July 2013, the MHLW conducted a survey of workplaces concerning numbers of workers for whom health checkups had been conducted as designated emergency workers (workers who were exposed to radiation exceeding 50mSv during emergency work) during the period from October 2011 to September 2012. The results of the survey are as shown in Table 1.

Table 1. Results of the Survey on Health Checkups Targeting Designated Emergency Workers (October 2011 to September 2012)

	Special health checkups			General health checkups (Specified health checkups)		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Numbers of workers who had received health checkups ^(Note 1)	517	165	682	517	170	687
Numbers of applicable workers ^{(Note 2) (Note 3)}	519	176	695	519	176	695
Implementation rate (%)	99.6%	93.8%	98.1%	99.6%	96.6%	98.8%

(Note 1) Including the latest health checkups conducted prior to October 2011.

(Note 2) Regarding the number of respondents, the response rate was 89.8% for contractors (176 out of 196) and 100% for TEPCO (519 out of 519) (as of 6 August 2013).

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

(2) Registration in the Database of the Results of Health Checkups Targeting Emergency Workers^(Note 1)

Table 2 shows the numbers of workers for whom health checkup results had been registered in the database by the end of January 2014 for the period from October 2011, when the Ordinance on Prevention of Ionizing Radiation Hazards was enacted, to the end of September 2012.

**Table 2. Registration in the Database of the Results of Health Checkups Targeting Emergency Workers
(October 2011 to September 2012)**

	Special health checkups			General health checkups (Specified health checkups)		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Numbers of workers whose data had been registered ^(Note 2)	2,006	8,605	10,611	2,002	7,007	9,009
Numbers of applicable workers ^(Note 3)	2,103	10,067	12,170	2,103	10,067	12,170
Registration rate (%)	95.4%	85.5%	87.2%	95.2%	69.6%	74.0%

(Note 1) Employers are required to have their employees engaging in radiation work receive the ionizing radiation medical examination and general health checkups (specified health checkups) at least once every six months based on the Ordinance on Prevention of Ionizing Radiation Hazards (hereinafter referred to as the "Ionizing Radiation Ordinance") and the Ordinance on Industrial Safety and Health. Article 59-2 of the Ionizing Radiation Ordinance provides that employers shall submit, to the MHLW, the results of health checkups of emergency workers while they are engaging in radiation work. The submitted results are registered in the database.

(Note 2) Including the numbers of workers having registered results of the latest health checkups conducted prior to October 2011, and workers for whom the data were submitted after the previous publication of the survey results (August 2013) (excluding those whose details are under closer examination).

(Note 3) Limited to workers who engaged in radiation work during the period from October 2011 to September 2012; the number of applicable workers increased due to the additional report published at the end of August 2013.

4. Registration in the Database of Results of Cancer Screening Based on the Guidelines

(1) Suggestions to Conduct Cancer Screening Based on the Guidelines^(Note)

The MHLW requested employers who employ designated emergency workers to properly conduct cancer screening, etc., while presenting a list of applicable designated emergency workers, multiple times from June to November 2012 and in October 2013.

Furthermore, the Ministry has checked present addresses and workplaces, etc. of all designated emergency workers once a year (checking for this fiscal year was completed in June 2013) in order to ensure that these workers can receive cancer screening, etc. properly even after they change addresses or jobs.

(Note) The Guidelines on Maintaining and Improving Health of the Emergency Workers at the TEPCO Fukushima Daiichi Nuclear Power Plant (hereinafter referred to as the "Guidelines") require employers to conduct cataract tests targeting emergency workers exposed to radiation exceeding 50mSv during emergency work, and to conduct cancer screening, etc. targeting emergency workers exposed to radiation exceeding 100mSv during emergency work, about once a year. These tests and screening will be conducted by the Japanese government after these workers have quit their jobs. The results of these tests and screening will be reported to the MHLW and registered in the MHLW's database with consent from the relevant workers.

(2) Results of the Survey on Cancer Screening, etc. Based on the Guidelines Targeting Designated Emergency Workers

The MHLW conducted a survey of workplaces concerning the numbers of workers for whom cancer

screening, etc., had been conducted as designated emergency workers (workers who were exposed to radiation exceeding 50mSv during emergency work). The results of the survey are as shown in Table 3.

Table 3. Results of the Survey on Cancer Screening, etc. Based on the Guidelines Targeting Designated Emergency Workers^(Note 1) (October 2011 to March 2013)

	Cataract tests (Slit lamp microscopy)			Cancer screening, etc.		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Numbers of workers who had received screening, etc.	397	235	632	142	26	168
Numbers of applicable workers ^(Note 2)	563	328	891	142	29	171
Screening rate (%)	70.5%	71.6%	70.9%	100.0%	89.7%	98.2%

(Note 1) Including the data additionally reported after the previous publication of the survey results (August 2013).

(Note 2) Applicable workers for cataract tests are those exposed to radiation exceeding 50mSv during emergency work and applicable workers for cancer screening, etc. are those exposed to radiation exceeding 100mSv during emergency work.

(3) Registration in the Database of the Results of Cancer Screening, etc. Based on the Guidelines Targeting Designated Emergency Workers

Table 4 shows the numbers of workers for whom results of the cancer screening, etc. had been registered in the database by the end of January 2014 for the period from October 2011, when the Guidelines were enacted, to the end of September 2012. Table 5 shows the numbers of workers for whom results of the cancer screening, etc. had been reported to the MHLW, out of those having the screening, etc. conducted by the Japanese government targeting applicable workers who had quit their jobs.

Table 4. Registration in the Database of the Results of Cancer Screening, etc. Based on the Guidelines Targeting Designated Emergency Workers (Screening, etc. Conducted by Employers) (October 2011 to September 2012)

	Cataract tests (Slit lamp microscopy)			Cancer screening, etc.		
	TEPCO	Contractors	Total	TEPCO	Contractors	Total
Numbers of workers whose data had been registered ^(Note 1)	47	110	157	139	14	153
Numbers of applicable workers ^{(Note 2) (Note 3)}	563	225	788	142	16	158
Registration rate (%)	8.3%	48.9%	19.9%	97.9%	87.5%	96.8%

(Note 1) Including the results of the latest health checkups conducted prior to October 2011, and the data submitted after the previous publication of the registration results (August 2013) (excluding those whose details are under closer examination)

The number of TEPCO workers for cataract tests is small, but this is because the 310 workers who received cataract tests from October 2012 to March 2013 are not included (their data had already been registered in the database).

(Note 2) Applicable workers for cataract tests are those exposed to radiation exceeding 50mSv during emergency work and applicable workers for cancer screening, etc. are those exposed to radiation exceeding 100mSv during emergency work.

(Note 3) (i) Workers who are engaging in radiation work, or (ii) workers who are engaging in work other than radiation work (limited to those who are employed by large-scale employers continuously from the time of engaging in emergency work) (as of August 2012)

Table 5. Report of the Results of Cancer Screening, etc. Based on the Guidelines Targeting Designated Emergency Workers (Screening, etc. Conducted by the Japanese Government) (April 2012 to March 2013)

	Cataract tests (Slit lamp microscopy)	Cancer screening, etc.
Numbers of workers whose data had been reported ^(Note 1)	44	6
Numbers of applicable workers ^{(Note 2) (Note 3)}	115	15
Reported rate (%)	38.3%	40.0%

(Note 1) The number has changed due to corrections made with regard to when tests, etc. were conducted after the previous publication of the survey results (August 2013).

(Note 2) Applicable workers for cataract tests are those exposed to radiation exceeding 50mSv during emergency work and applicable workers for cancer screening, etc. are those exposed to radiation exceeding 100mSv during emergency work.

(Note 3) The assistance by Japanese government covers only designated emergency workers (i) who are not employed at present, or (ii) who are engaging in work other than radiation work (excluding those who are employed by large-scale employers continuously from the time of engaging in emergency work) (as of August 2012).

5. Consultations at Health Consultation/Guidance Offices

The MHLW has outsourced and established health consultation/guidance offices targeting emergency workers. Applicable workers can make toll-free calls from anywhere in Japan and can also make reservations to receive face-to-face counseling or guidance from medical doctors (toll-free number: 0120-808-609).

Table 6 shows the number of consultations from April 2013 to September 2013.

Table 6. Number of Consultations (April 2013 to September 2013)^(Note)

Total	Telephone consultations	Face-to-face consultations
111	101	10

(Note) Updated data since the previous publication

Table 7. Classification of Consultations (April 2013 to September 2013) (Total Number)^(Note)

1. Concerning radiation exposure and its effects on health	27
▪ Relationship between current health conditions and exposure	18
▪ Applicability of workmen's compensation insurance to the current health conditions	3
▪ Others	6
2. Concerning the long-term health care system	22
▪ Questions about database registration certificates (usage, applications for changes, failed delivery, etc.)	7
▪ Questions about health checkups and cancer screening, etc.	15
3. Inquiries about exposure doses	11
▪ Inquiries from applicable workers	11
▪ Inquiries from their family members	0
4. Methods for managing health in the future	31
▪ Methods for maintaining good health	11
▪ Guidance and consultations concerning medical treatment	20
5. Others	31

(Note) Updated data since the previous publication