

**Guidelines on Maintaining and Improving Health of the Emergency Workers  
at the TEPCO Fukushima Daiichi Nuclear Power Plant**

[ Guidelines on Maintaining and Improving Health of the Emergency Workers at the TEPCO  
Fukushima Daiichi Nuclear Power Plant, Public Notification No.5, 11 October 2011 ]

Section 1. Purpose

Among workers presently or previously engaged in the emergency work designated by the Minister of Health, Labour and Welfare (meaning the emergency work prescribed in the MHLW Notification Concerning Emergency Work Designated by the Minister of Health, Labour and Welfare (MHLW Notification No. 402 of 2011) pursuant to Paragraph 1, Article 59-2 of the Ordinance on Prevention of Ionizing Radiation Hazards; hereinafter referred to as “designated emergency work”) at the TEPCO Fukushima Daiichi Nuclear Power Plant, resulting from the Great East Japan Earthquake on 11 March 2011 (hereinafter such workers shall be referred to as “emergency workers, etc.”), emergency workers who were exposed to radiation exceeding the dose limit for regular radiation work during the period of designated emergency work should be provided with appropriate measures for health care, as there is heightened concern for late onset diseases such as cancer. Continuous medical examinations conducted on a long-term basis even after workers leave their job, might help mitigate fear of potential risks among these workers.

In accordance with Paragraph 1, Article 70-2 of the Industrial Safety and Health Act (Act No. 57, 1972, hereinafter referred to as “the Act”), these guidelines establish principles for implementing measures for health care of workers who have engaged in the designated emergency work or radiation work, hereinafter referred to as “emergency work, etc.” so that employers would strive toward taking appropriate and effective measures that improve health of these workers. These guidelines also establish the needed measures for long-term health care appropriate for emergency workers, etc. after they leave radiation work. Furthermore, the guidelines clarify the Japanese government’s role in protecting health and safety of workers involved in emergency work by defining specific measures for implementation.

Section 2. Actions for the long-term health care

1. Establishment of an on-site health care system

Employers who assigned emergency workers, etc. to emergency work, etc. excluding small- and medium-sized employers who assign emergency workers, etc. to non-emergency work, should

establish an on-site health care system with a health and safety committee and appropriate numbers of health officers, industrial medical doctors, public health nurses, and other professionals based on the scale of the site. The employers are expected to conduct the general medical examination (the Act, Article 66, Paragraph 1) as well as the ionizing radiation medical examination stipulated in Article No. 56 of the Ordinance on Prevention of Ionizing Radiation Hazards (MHLW Ordinance No. 41, 1972, hereafter referred to as the “Ionizing Radiation Ordinance”) in order to manage long-term health care of emergency workers.

## 2. Cancer screening, etc.

- (1) Employers should provide slit-lamp microscope examination for cataracts approximately once a year for emergency workers, etc. who have been exposed to effective doses between the ranges of 50 mSv to 100 mSv while they were engaged in the designated emergency work. Taking photographs of their lenses is recommended in these examinations. This rule should not apply in cases where the relevant workers do not request such examination.
- (2) Employers should provide the following examinations to emergency workers, etc. who have been exposed to an effective dose higher than 100 mSv while they were engaged in the designated emergency work, approximately once a year in addition to the examination described in (1). However, this should not apply in cases where the relevant workers do not request such examinations. The white blood cell count and differential leukocyte count should be determined, together with the red cell count and hemoglobin content at the routine general medical examination.

Type of examination	Examination items
Thyroid examination	1) Levels of Thyroid stimulation hormone (TSH), free triiodothyronine (free T3), free thyroxine (free T4) from blood samples 2) Neck ultrasound if determined necessary based on the aforementioned blood test results and radiation exposure doses
Gastric cancer screening	Gastric fluoroscopy examination or gastric endoscopy examination
Lung cancer screening	Lung X-ray and sputum cell examination
Large intestine cancer screening	Fecal occult blood tests

- (3) Employers should fully explain the details and the necessity of the aforementioned examinations in (1) and (2) in advance to all employees expected to take these examinations.

### 3. Health guidance, etc.

- (1) Employers should fully provide health guidance to emergency workers, etc. that considers the results of the ionizing radiation medical examination and cancer screening, etc. specified in Section 2 above, through medical doctors or public health nurses in accordance with the “Guidelines on Steps to Be Taken by Employers Based on Medical Examination Results” (Guideline on Measures Based on Medical Examination Results –Bulletin No. 7, 31 January 2008).
- (2) Considering the urgent nature of emergency work that is different from regular radiation work and its impact on mental health of emergency workers, etc., employers should provide health consultations including mental health consultations if requested by emergency workers, etc. When employers provide consultations, employers should refer to the “Guideline on Maintaining and Improving Mental Health of Workers” (Guideline on Health Maintenance and Improvement– Bulletin No. 3, 31 March 2006).
- (3) The results of the general and ionizing radiation medical examinations should be used by employers in making employment-related decisions for workers who had alarming remarks in the results of relevant examinations while considering opinions of medical doctors in accordance with Article 66-4 of the Act. However, it should be noted that the results of cancer screening, etc. specified in Section 2 above should be used only for the purpose of giving a re-examination, detailed analyses, or recommendations for further treatment and not for determining employment actions.
- (4) In order to protect the health information relevant to these guidelines, including results of the general and ionizing radiation medical examinations and health guidance, employers should be mindful of MHLW Notification No. 259 in 2004 “Guidelines on Measures Taken by Employers to Ensure Appropriate Handling of Personal Information Relating to Employment Management”.

### Section 3. Development of a database for the long-term health care of emergency workers, etc.

#### 1. Development of a database

- (1) Employers who assign emergency workers, etc. among their employees to emergency work, etc. should report on the following items to the Japanese government in accordance with Article 59-2 of the Ionizing Radiation Ordinance. This includes employers who assigned emergency workers, etc. among their employees to the designated emergency work before the Ministerial Ordinance for Revision of Ordinance on Prevention of Ionizing Radiation Hazards was enforced (MHLW Notification No. 129 in 2011).
  - (a) Results of medical examinations
    - i) Results of the ionizing radiation medical examination conducted pursuant to Article 57 of

the Ionizing Radiation Ordinance

- ii) Results of the general medical examination conducted pursuant to Articles 44 and 45 of the Industrial Safety and Health Ordinance
  - iii) Results of special medical examinations conducted pursuant to Paragraph 4, Article 66 of the Act
- (b) Matters specified in the Status Report on Radiation Dose Control, etc.” (Form 3, Ionizing Radiation Ordinance)
- i) Names and addresses of workers and names of employers
  - ii) Radiation exposure dose during designated emergency work and exposure dose during radiation work before and after the designated emergency work.
- (2) In the case where employers provided medical examinations to emergency workers, etc., except for those cases described in (1) above such as the cancer screening, etc. delineated in Section 2-2, they should report the examination results including diagnoses of the medical doctor and other details subject to the approval of the examined workers.
- (3) Emergency workers, etc. should receive written documents along with a card (hereinafter referred to as the “registration card”) which prove registration of their detailed information in the database established by the Japanese government in order to record and store the results of the examinations described in (1) and (2).
- Emergency workers, etc. should be able to receive copies of their own records including exposed radiation doses and medical examination results by presenting their registration card to a desk (hereinafter referred to as the “support desk”) established by the Japanese government to support those workers.
- (4) Emergency workers, etc. who fall into the categories described in Sections 2-2-(1) and (2) above (hereinafter referred to as “designated emergency workers, etc.) should be able to receive an exposure dose recording notebook for designated emergency workers, etc. which documents the key matters of (1) and (2) above (hereinafter referred to as “recording notebook”). They should also be able to have other additional details updated in their recording notebook at any time at the support desk.

## 2. Measures for assigning new emergency workers, etc. to radiation work

- (1) Employers who assign new workers to radiation work should determine at the time of hiring whether any of those workers fall into the category of emergency workers, etc. upon investigating their radiation exposure history when the ionizing radiation medical examination is performed, and they should report this to the Japanese government as provided in Section 3-1 above, in accordance with Article 59-2 of the Ordinance on Prevention of Ionizing Radiation Ordinance. In addition, they must implement appropriate health care measures as specified in Section 2 above,

according to the levels of radiation exposure dose received during the designated emergency work.

- (2) Employers should obtain approval from the designated emergency workers, etc. in advance for checking the results of their past medical examinations and use the information to support their health guidance and consultations.

#### Section 4. Support by the government to ensure appropriate and effective implementation of measures for maintaining and improving health of emergency workers, etc.

##### 1. Recommendation for cancer screening, etc.

About once a year, the government should notify the designated emergency workers, etc. who are assigned to emergency works, etc. through their employers, or directly, that it is recommended these workers have the cancer screening, etc. and other relevant tests, based on the radiation exposure doses as delineated in Section 2-2.

##### 2. Health guidance by the Japanese government

The government provides health consultations or guidance to emergency workers, etc. at the support desks.

##### 3. Support for the designated emergency workers, etc.

- (a) When the designated emergency workers, etc. not currently working receive the general medical examination and examinations equivalent to each of those listed in Section 2-2 above, the government should finance the examination expenses in whole or in part.
- (b) When the designated emergency workers, etc. currently assigned by employers to work on duties other than emergency work, etc. (only for small- to medium-sized employers that assigned workers to the designated emergency work) receive the medical examinations equivalent to each of those listed in Section 2-2 above, the government should finance the examination expenses in whole or in part.
- (c) The government should receive the results of the above examinations including diagnoses and remarks of medical doctors from the medical institutions that conducted these examinations after approval of the examined workers.

4. In addition to items 1-3 above, the government may provide the support deemed necessary in order to expedite appropriate and effective measures for maintaining and promoting health of the designated emergency workers, etc.