

3. Overview of Guidelines and Notifications

3.1 Overview of the Guidelines on Maintaining and Improving Health of Emergency Workers at Nuclear Facilities

These guidelines were issued on 11 October 2011 as “Guidelines on Maintaining and Improving Health of Emergency Workers at the TEPCO Fukushima Daiichi Nuclear Power Station”. The purpose of the guidelines is to support appropriate and effective implementation of measures to maintain and improve the health of workers who have engaged or had engaged in the emergency works or radiation works at the TEPCO Fukushima Daiichi NPS (hereinafter referred to as “emergency workers”). The guidelines require that the following measures are implemented appropriately to maintain and improve the health of emergency workers.

(1) Actions for long-term health care

- An on-site health care system should be established, appropriate to the scale of each workplace to implement the relevant medical examinations.
- The following examinations should be performed for those workers whose exposure doses (effective doses) during emergency works fall in the following ranges:
 - (a) Higher than 50 mSv, a cataract examination once a year.
 - (b) Higher than 100 mSv, a cancer screening once a year.
- Health guidance should be provided to all emergency workers.

(2) Development of a database for workers who have engaged in emergency works

- Employers who assign their emergency workers to be engaged in the emergency works or radiation works should report to the Japanese Government the results of their medical examination and provide status reports on their radiation dose control.

The same rule on the reporting requirement should apply to employees who had been emergency workers but were transferred to radiation works.

- A registration card for the database established by the Japanese Government should be issued to emergency workers. The emergency workers should be able to obtain transcripts of their records for exposure doses and medical examination results by presenting the card at the national support service.

- The emergency workers whose exposure doses are higher than 50 mSv are eligible to receive a record book describing the doses.

(3) Support provided by the Japanese Government

- Recommendations for cancer screenings and other examinations to emergency workers.
- Health consultations and guidance to emergency workers at the support services.
- Full or partial financial support for the expenses incurred by emergency workers who fall into the categories described in Section 2 of “Actions for long-term health care”.

On 31 August 2015, the MHLW promulgated the partial revision of the Ministerial Regulation on Prevention of Ionizing Radiation Hazards that defines actions to prevent workers from encountering radiation hazards, etc. In accordance with the partial revision of the ordinance, the above guidelines were revised (to be applied from 1 April 2016) as shown below.

- Modification of the name to “Guidelines on Maintaining and Improving Health of Emergency Workers at Nuclear Facilities”.
- Enhanced long-term healthcare (examination items such as cancer screenings were added and a stress check will be provided).
- Mid-term exposure dose control for workers who were exposed to radiation beyond the dose limit for regular radiation works.
- Exposure dose control for the regular radiation works during the exposure dose control period including the time of the accident.

Further information is available on the following sites.

https://www.mhlw.go.jp/english/topics/2011eq/works/tepcorprpr_150831_attachment05.pdf (Overview)

3.2 Overview of the Ordinance on Prevention of Ionizing Radiation Hazards at Works to Decontaminate Soil and Wastes Contaminated by Radioactive Materials Resulting from the Great East Japan Earthquake and Related Works

The Ordinance on Prevention of Ionizing Radiation Hazards at Works to Decontaminate Soil and Wastes Contaminated by Radioactive Materials Resulting from the Great East Japan Earthquake and Related Works specifies the actions below to be taken by employers to prevent radiation exposure of workers engaged in decontamination works.

(1) Fundamental principles and definitions

- Employers shall strive toward minimizing worker exposure to ionizing radiation.

(2) Measuring doses and monitoring the maximum dose levels

- The exposure doses shall not exceed 100 mSv per five years and 50 mSv per one year.
- The exposure doses received by workers shall be monitored,

- recorded, and the records kept for 30 years.
 - The external exposure doses shall be monitored.
 - The workers handling contaminated soil shall receive examinations for internal exposure doses.
- (3) Measures for implementation of decontamination works**
- Exposure doses in workplaces shall be surveyed and recorded before commencing works.
 - A work plan shall be established and disseminated to every worker.
 - An operation leader shall be appointed to lead the project.
 - The work plan shall be submitted to the Head of the relevant Labour Standards Inspection Office.
 - When the radiation doses exceed the maximum standardized levels, employers shall promptly consult a physician and report the case to the relevant office.
- (4) Prevention of contamination**
- For suppression of dust, measures shall be taken to keep contaminated soil and wastes in a wet condition.
 - Contaminated soil and wastes shall be stored in containers.
 - When workers leave their workplaces, their bodies and belongings shall be screened for contamination.
 - When workers are engaged in certain designated works, they shall wear protective equipment.
 - When protective equipment is contaminated, it shall not be used until it is decontaminated.
 - In the workplaces, eating, drinking, and smoking shall be prohibited.
- (5) Education**
- Workers engaged in decontamination works shall receive

special education.

- (6) Health care**
- Special medical examinations for workers engaged in decontamination works shall be conducted.
 - The medical examination cards shall be created, and the examination results recorded on them and the cards kept for 30 years.
 - Opinions of physicians shall be received and recorded on the medical examination cards.
 - Workers shall be informed the results of the special medical examinations and the results shall be submitted to the Head of the relevant Labour Standards Inspection Office.
 - Based on the medical examination results, workers shall receive needed measures to protect their health.
- (7) Others**
- Radiation dosimeters, which are indispensable to abide by the ordinance, shall be provided.
 - When employers terminate their businesses, the records of radiation dose measurements and medical examination cards shall be transferred to the organization designated by the MHLW.
 - When workers leave their jobs, such records shall be issued to the workers.
 - Exposure doses shall be added to those received during other decontamination works.

Further information is available on the following site.

https://www.mhlw.go.jp/english/topics/2011eq/workers/ri/rl_rl_130412.pdf

3.3 Overview of the Guidelines on Prevention of Radiation Hazards for Workers Engaged in Decontamination Works

These guidelines specify actions to be taken by the employers to prevent radiation exposure for workers engaged in decontamination works. The guidelines were issued on 22 December 2011, partially revised on 15 June 2012, 12 April 2013, 26 December 2013, 18 November 2014, 30 January 2018, 31 January 2022 and 27 April 2023.

(1) Objectives

- These guidelines aim at collectively providing the essence of the actions that employers should take and the provisions specified in the Industrial Safety and Health Act (Act No. 57, 1972) and other relevant laws and regulations, in addition to the provisions specified in the revised Ionizing Radiation Ordinance for Decontamination.

(2) Scope

- “Decontamination works” refers to the works in performing decontamination of soil, etc., handling of designated contaminated soil, and wastes and collecting wastes, etc.
- Employers should follow applicable matters from each section of the guidelines, as needed.

(3) Targets and methods for radiation exposure dose control

- Employers for decontamination works, etc., should conduct effective exposure dose monitoring during decontamination works.
- Employers for decontamination works, etc., should

ensure that the individual total effective dose does not exceed the limits defined in the guidelines. The records of exposure data should be kept for 30 years.

(4) Measures to reduce radiation exposure

- Employers for decontamination works, etc., should make surveys of workplaces in advance and formulate a work plan, according to which works should be conducted, based on the information from the preparatory survey.

(5) Measures for preventions of contamination spreading and internal exposure

- Control of dust generation by wetting soil, contamination screening for workers when leaving the controlled area, use of dust mask or other protective equipment etc., are required.

(6) Education for workers

- Education for operation leaders and special education for the workers are defined.

(7) Measures for health care

- Employers for decontamination works, etc., should provide workers with the special and general health examinations once every 6 months. The examination results should be recorded in the medical examination cards and the cards kept for 30 years.

(8) Safety and health management system

- The safety and health management system should be

established by the primary contractors, by appointing a general safety and health manager and a radiation administrator to conduct radiation dose control, and related activities.

Further information is available on the following site.
https://www.mhlw.go.jp/english/topics/2011eq/worker/ri/gn/gn_230427_a01.pdf

3.4 Overview of the Guidelines on Prevention of Radiation Hazards for Workers Engaged in Works under a Designated Dose Rate

These guidelines specify actions to be taken by the employers to prevent radiation exposure for workers engaged in works, such as restoration and reconstruction works, under a designated dose rate.

(1) Objectives

The Ionizing Radiation Ordinance was partially revised to regulate measures for appropriately protecting workers from health hazards caused by radiation, according to the types of restoration and reconstruction works.

(2) Application

These guidelines apply to employers who provide services other than the decontamination works at the sites where the average ambient dose rate exceeds 2.5 μ Sv/h.

(3) Subjects and methods of radiation exposure dose control

The total effective exposure doses should not exceed 100 mSv per five years and 50 mSv per year for workers, 5 mSv per three months for female workers having the possibility to become pregnant. The dose records should be preserved for 30 years.

(4) Measures to reduce radiation exposure

The employers should measure the average ambient dose rate of the work sites to determine the appropriate measures for radiation exposure dose control. The appropriate health services and consultations by physicians should be provided to the workers.

(5) Education for workers

The employers should provide special lectures intended to enhance workers' knowledge and understanding in the following areas before assigning them to the high risk operations: the effects of ionizing radiation, radiation measurement methods, relevant laws and regulations, etc.

(6) Healthcare measures

The employers of workers under a designated dose rate should provide general medical examinations to the workers and should seek advice from a physician about the results of the medical examinations.

(7) Safety and health control system

Primary contractors who conduct operations under a designated dose rate should appoint a radiation manager who is responsible for consolidated management of dose control. Employers should appoint health managers or safety and health promoters, who are expected to oversee technical issues associated with measuring radiation exposure doses and recording the measurement results.

Further information is available on the following site.
https://www.mhlw.go.jp/english/topics/2011eq/workers/ri/gn/gn_230427_a02.pdf

3.5 Overview of the notice, "Instructions to enhance actions for safety and health management measures for radiation works and emergency works at nuclear facilities"

On 10 August 2012, the MHLW issued a circular notice ("Instructions to enhance actions for safety and health management measures for radiation works and emergency works at nuclear facilities", Labour Standard Bureau Notification No. 0810-1, issued on 10 August 2012) to the directors of the relevant Prefectural Labour Bureaus with a directive to enhance instruction to relevant employers with respect to safety and health measures in preparation for emergency works at nuclear facilities (Nuclear Power Stations, reprocessing facilities and fuel fabrication facilities).

The MHLW has provided instructions via circular notices since 2000 regarding safety and health management of radiation works in nuclear facilities, including radiation exposure dose control. In consideration of the lessons learned from the accident at the TEPCO Fukushima Daiichi NPS caused by the Great East Japan Earthquake, measures in preparation for emergency works to be taken by the employers are also considered important. Accordingly, the Ministry decided to improve the instructions thoroughly.

Points where instructions are improved:

- (1) Provisions in preparation for emergency works should be

taken not only at nuclear facilities, but also at corporate offices and primary contractors;

- (2) In making prior preparations for emergency works, nuclear facility operators, etc. are required to conduct the voluntary inspections listed below. The facilities will be instructed to implement those matters that are difficult to implement immediately in a step-by-step manner.

(a) Radiation dose control

Improvement of the framework of the dose management system should be undertaken, including securing availability of dosimeters by making advance borrowing agreements with other facilities, managing dosimeter-lending records of workers, and notifying workers of their doses and measurements of internal exposure, etc.

(b) Protective equipment and clothing

Protective equipment and clothing should be made available and workers should be shown the correct way to wear the respiratory protective equipment. Employers should measure airborne concentration at waiting stations (stand-by areas) and other places.

(c) Safety and health education

Textbooks should be prepared and classrooms for educating new workers should be provided.

(d) Health care and medical care systems

The medical care system should be established, measures against heat stroke should be implemented, special medical examinations should be conducted, and a patient transportation system should be established.

(e) Work plan and others

A system to prepare work plans should be established,

preparation of proper work plans should be promoted, the actual status of contracted work should be assessed, and arrangements for proper accommodations (lodging) and meals, etc. should be made in advance.

(3) The Ministry will clarify the items for the relevant Prefectural Labour Bureaus to ensure that nuclear facilities are properly instructed in the case of implementing emergency works.

Further information is available on the following site.

https://www.mhlw.go.jp/english/topics/2011eq/worker_s/tepco/rp/pr_120810_a02.pdf

3.6 Overview of the Guidelines on Prevention of Radiation Hazards for Workers Engaged in (Nuclear) Accident-derived Waste Disposal

These guidelines, prepared for disposal of accident-derived waste, summarize the provisions specified in the Industrial Safety and Health Act and other relevant regulations, including related laws and regulations.

(1) Objectives

The guidelines aim at collectively providing the actions that the disposal operators handling accident-derived waste should take.

(2) General principles

The disposal operators should strive to minimize the amount of ionizing radiation. The disposal operators should strive to decontaminate the area around the disposal site in advance in order to reduce radiation exposure to workers.

(3) Methods on setting radiation controlled areas and radiation dose control

The disposal operators should clearly specify the radiation controlled areas with posted signs and prohibit access to the area. The dose measurements should be recorded basically every three months, every year, and every five years, and the records should be kept for 30 years.

(4) Dose limit at facilities

The disposal operators should ensure that the dose rate is restricted so that the sum of the external dose and committed effective dose from radioactive materials in air should not exceed 1 mSv per week.

(5) Requirements on equipment for preventing contamination

The disposal operators should use materials and structures that prevent spread of contamination, and ensure that workers in the facilities are not exposed to radiation.

(6) Measures to prevent spread of contamination

The disposal operators should use containers in order to prevent spread of contamination, should create an inspection

area to check the contamination levels of workers, and should make available effective respiratory protective equipment and protective clothing for workers to prevent body contamination.

(7) Work management

The disposal operators should define rules on work methods and procedures, etc. that should be disseminated to the workers. The disposal operators should submit a “work permit” to the head of the relevant Labour Standards Inspection Office.

(8) Education for workers

The disposal operators should provide workers with special education on the following topics: what accident-derived wastes are and how they should be disposed.

(9) Measures for health care

The disposal operators should provide workers with special and general medical examinations once every 6 months. The examination results should be recorded on medical examination cards and the cards kept for 30 years.

(10) Safety and health management system

The safety and health management system should be established by the primary contractors by assigning a general safety and health manager, a responsible person for safety and health management by involved subcontractors, and so on. Safety and health coordinating meetings consisting of all of the involved subcontractors will be held once a month.

Further information is available on the following sites.

https://www.mhlw.go.jp/english/topics/2011eq/workers/ri/gn/gn_230427_a03.pdf

3.7 Overview of the establishment of radiation exposure doses registration systems for decontamination and related works

The primary contractors of decontaminator works came to an agreement on establishing the Organization for registration

control of radiation exposure doses for decontamination and related works from April 2014 as follows:

(1) Objectives

The registration system aims to achieve the following: Establish a registration system in coordination with the existing system for nuclear facilities to verify past exposure doses when decontamination workers are successively employed by different employers.

(2) Systematic operation of the radiation passbook control

- Obtaining the radiation passbook
- Control of radiation passbooks and notification of exposure doses
- Obtaining the result of medical examinations and recording it in radiation passbooks
- Obtaining implementation status of special education and recording it in radiation passbooks

(3) Methods for dose registration and past record inquiry

- Registration of work sites

- Periodical registration of exposure doses
 - Inquiry and registration of records prior to 2014
 - Cross-reference of data with system for nuclear facilities
- #### (4) Transfer of records of exposure dose and medical examination

- Statutory transfer of exposure dose records
- Statutory transfer of medical examination records

(5) Operation of dose control system

- Expense for participating in dose control system
- Development of work procedures and manuals
- Establishment of governance council to maintain the system

Further information is available on the following site.

https://www.mhlw.go.jp/english/topics/2011eq/workers/ors/oi/pr_131115.html

3.8 Overview of the Guidelines on Occupational Safety and Health Management at the TEPCO Fukushima Daiichi Nuclear Power Station

The MHLW formulated the Guidelines on Occupational Safety and Health Management at the TEPCO Fukushima Daiichi Nuclear Power Station (Enactment: Labour Standards Bureau Notification No. 0826-1, 26 August 2015 Amendment: Labour Standards Bureau Notification No. 0417-7, 17 April 2023, No.0317-3, 17 March 2025 and No.0520-8, 20 May 2025). This guideline summarizes transparently actions to be conducted by TEPCO and the primary contractors according to the subjects shown below in taking measures for occupational safety and health management toward decommissioning of the TEPCO Fukushima Daiichi NPS.

(1) Establishment of a system for occupational safety and health management undertaken by TEPCO and the primary contractors

- Selecting a general health and safety manager, etc. and holding safety and health coordinating meetings by TEPCO
- Providing instructions to, and support of, relevant subcontractors by the primary contractors

(2) Implementation of risk assessment and measures to be taken for enhancement of safety and health education based on the results

- Implementing a risk assessment (identifying dangers or hazards caused by the works, estimating occurrence of occupational injuries and diseases that may be caused by

them, and considering measures to reduce the risks) and taking measures to reduce the possibility of occupational injuries and diseases based on the results

- Enhancing education of new workers or operation leaders

(3) Consideration and implementation of effective exposure dose reduction measures from the stage of placing orders

- Preparing an “Exposure dose reduction specification” by TEPCO for radiation works that may cause one man-sievert of total exposure dose for all workers, and preparing a “Dose control plan” by the primary contractors, etc., and submitting them to the Director of the Labour Standard Inspection Office

(4) Healthcare measures, etc.

- Providing health guidance based on medical examination results, establishing an emergency medical system, taking heat stroke measures and long-term healthcare measures, improving the work environment, etc.

Further information is available on the following site.

https://www.mhlw.go.jp/english/topics/2011eq/workers/tepc/o/rp/pr_250520.pdf