

# Systematic Control of Radiation Exposure Doses for Decontamination and Related Works

Interim Report of the Committee on the  
Organization for Registration Control of  
Radiation Exposure Doses for  
Decontamination and Related Works  
(Overview)

# Background and the Committee Details

## 1 Background

### **Obligation to control cumulative exposure doses (exposure dose limit) and keeping dose records**

- The exposure dose limit and keeping the dose records obliged in the Ionizing Radiation Ordinance for Decontamination.
  - a. Delivery of dose records and medical examination records when workers leave their job. - A survey of past radiation exposure doses at the time of employment
  - Implementation of proper control of the cumulative exposure dose limit
  - b. Keeping dose records and medical examination records for 30 years. Transfer the aforementioned records to the designated organization when primary contractors discontinue the decontamination and related businesses.
  - Preventing the dispersion of the dose records.

### **The control of dose issues (compliance)**

- Workers who work at different workplaces may not properly report the past radiation exposure doses at the time of employment
  - There is no mean for employers to check the past radiation exposure doses of the new hire.
- Primary contractors may not transfer the dose records to the designated organization (Radiation Effects Association) when they discontinue the decontamination and related businesses
  - Dose records are not kept properly.

### **Needs for establishing systematic control organization**

- In order to ensure compliance with the statutory requirements, nuclear employers have **voluntarily operated** systematic control system for radiation exposure dose (radiation passbook and radiation exposure dose registration control system) (Dose registration center)
- A study was conducted by the primary contractors to **voluntarily establish a system** comparable to the system for the nuclear employers.

## 2 Establishing the Committee on the Organization for Registration Control of Radiation Exposure Doses for Decontamination and Related Works

- **Voluntarily established** by seven general construction companies, two radiation control related companies, and one other company.
- Observers consisted of MHLW, MOE, Japan Federation of Construction Contractors, National General Constructors Association of Japan FEPC, etc.
- Organized by the Radiation Effects Association .
- The Committee **released an interim report** and **the provisional operation of the system started** on 15 November 2013.

● Participants Name of companies	Remarks
Obayashi Corporation	Recommendation of Japan Federation of Construction Contractors
Kajima Corporation	Recommendation of Japan Federation of Construction Contractors
Shimizu Corporation	Recommendation of Japan Federation of Construction Contractors
Taisei Corporation	Recommendation of Japan Federation of Construction Contractors
Kumagai Gumi Corporation	Recommendation of Japan Federation of Construction Contractors
Okumura Corporation	Recommendation of Construction Work Safety Institute
Maeda Corporation	Recommendation of Construction Work Safety Institute
ATOX Corporation	Recommendation of Technical Advisory Council on Remediation and Waste Management
Chiyoda Technol Corporation	Recommendation of Technical Advisory Council on Remediation and Waste Management
Tokyo Power Technology	Recommendation of Technical Advisory Council on Remediation and Waste Management

● Observers
Ministry of Health, Labour and Welfare (MHLW)
Ministry of the Environment (MOE)
Japan Federation of Construction Contractors
National General Constructors Association of Japan
Federation of Electric Power Companies of Japan (FEPC)
Tokyo Electric Power Company
Japan Atomic Power Cooperation
● Secretariat
Radiation Effects Association

# Overview of the interim report of the committee

## Applications

- The control system shall be applied to workers engaged in **works of decontamination, etc., works for collecting wastes, etc., works for handling designated contaminated soil and wastes** defined in the paragraph 7, and **works under a designated dose rate** defined in the paragraph 8, Article 2 of the Ionizing Radiation Ordinance for Decontamination, and **works for disposing accident derived wastes** defined in the paragraph 3, Article 2 of the Ionizing Radiation Ordinance. (hereafter referred to as “decontamination and related works”)
- The control system shall be applied to primary contractors who were commissioned decontamination and related works from the national government and/or the public utility companies in the immediate future.
  - \* With regard to works for handling designated contaminated soil and wastes which were commissioned from a variety organizations, strategies for implementation of the system will be consulted with the organizations that order those works.
- **Primary contractors who were commissioned decontamination projects from local governments (including national agencies that were entrusted with the expenditure from MOE) will consult with local governments toward joining the system in the following steps:**
  - a. Full scope participation for decontamination and related works at **special decontamination areas**,\*1 (i.e. (a) radiation passbook, (b) registration/inquiry about radiation exposure doses, (c) transfer of radiation exposure dose records, etc.
  - b. Partial participation for decontamination and related works in **areas other than the special decontamination areas** (i.e. only transfer of radiation exposure dose records, etc.\*2 )
  - \*1 Special decontamination areas defined in the paragraph 1, Article 25 of the Act on Special Measures Concerning the Management of Radioactive Pollution
  - \*2 Considerations at this time include the case in which only the radiation exposure dose records will be transferred.

## Applicable works

\* 1mSv = 1,000 (μSv)

- 1 Works of decontamination, etc. and works for collecting wastes, etc.**
  - Decontamination works and works for collecting, transporting, and storing wastes conducted at special decontamination areas in eight prefectures (evacuation areas) and intensive contamination survey areas (> 0.23 μSv/h)
- 2 Works for handling designated contaminated soil and wastes**
  - Works for handling contaminated soil and wastes with radioactivity concentration exceeding 10, 000 Bq/kg ([Remediation of infrastructures, farming and forestry works (mainly in areas with radiation dose rate above 2.5 μSv/h)])
- 3 Works under a designated dose rate**
  - Works conducted in areas with radiation dose rate above 2.5μSv/h (generally in evacuation areas) other than those described in 1 or 2 (e.g. Surveys, transportation or indoor manufacturing businesses)
- 4 Works for disposing accident derived wastes, etc.**
  - a. Soil, generated by operations such as decontamination, with radioactivity concentration exceeding 10,000 Bq/kg (**Removed soil**)
  - b. Wastes contaminated with radioactive materials discharged by the accident (radioactive materials indirectly generated the by the accident at the TEPCO Fukushima Daiichi Nuclear Power Plant) whose radioactivity concentration exceeds 10,000 Bq/kg (**Contaminated wastes**)

(Note) Including radioactive materials discharged by the accident that exceeded the minimum limits in of concentration in radioactive isotopes other than cesium due to condensation or other processes in the course of disposal of wastes, etc.

(Note) “Disposal” includes the following: ;

  - (a) final disposal (landfill) and interim storage, (b) interim treatments (sorting, crushing, compressing, condensing, and incineration, etc.), and (c) maintenance and inspection of related facilities and equipment.

# Overview of the interim report of the committee

## Overview of the system

### **1. Systematic operation of the radiation passbook**

Primary contractors or subcontractors who can independently manage the control of radiation doses shall take the following actions:

- a. Submit the **application for the issue of the radiation passbooks**
- b. **Notify the exposure dose** to subcontractors and record the radiation exposure dose in the radiation passbook
- c. Check **the ionizing radiation medical examination records for decontamination and special education records submitted** by subcontractors and document them in the radiation passbook

### **2. Registration of radiation exposure doses and inquiring about past records, etc.**

Primary contractors shall take the following actions:

- a. **Register radiation exposure doses, etc.** of all workers quarterly **by electronic media to the Dose Registration Center (Regular dose registration)**
- b. **Inquire about past radiation exposure doses** of decontamination workers, etc. **from exclusive terminals (Inquiries about past records)**
- c. Inquire about **past records of decontamination workers which had been registered to the system for the nuclear facilities (Intersystem references)**

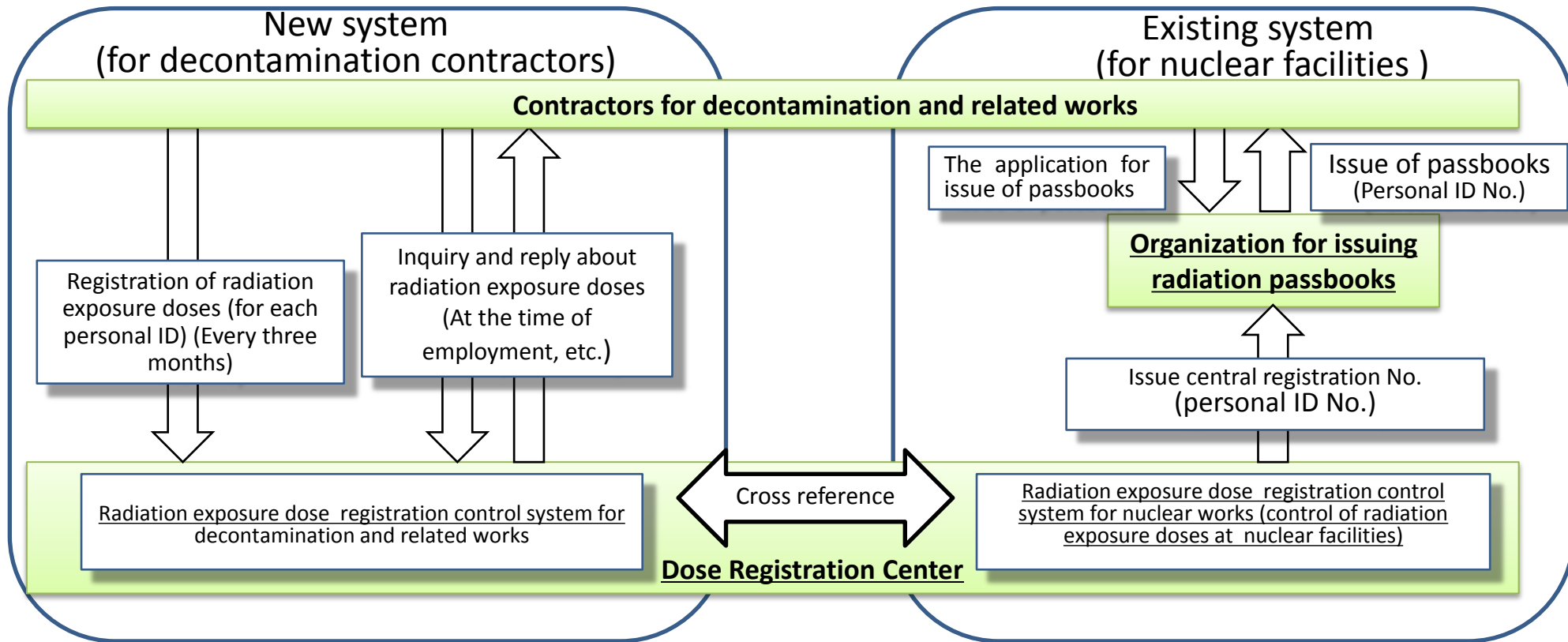
### **3. Transfer of radiation exposure dose and ionizing radiation medical examination records**

Primary contractors shall take the following actions:

- a. Upon completion of the contracted work, **the primary contractors shall transfer the radiation exposure dose records to the Dose Registration Center (Exemption of statutory record keeping duty).**
- b. Upon completion of the contracted work, the primary contractors **shall transfer the ionizing radiation medical examination records to the Dose Registration Center (Exemption of statutory record keeping duty).**

# inquiring about past dose records

- Issue of ID numbers and radiation passbooks based on the existing system (system for nuclear facilities)
- Registering and inquiring about radiation exposure doses during decontamination works based on the new system (system for decontamination contractors)
- The cross reference system of radiation exposure doses between nuclear facilities and decontamination contractors



- Radiation passbooks shall be issued for the member of the new system (for decontamination works) from the existing organization (the system for nuclear facilities)

# Details of the System Operation

## System operation

- 1 Expense for creating the joint system
  - a. Regular registration of radiation exposure doses + Transfer of records (Including contribution to the system development)
    - FY 2013: **3,000 Yen/person/fiscal year**
    - FY 2014: 4,500 Yen/person/fiscal year
    - FY 2015 or later: to be determined.
  - b. Transfer of records only
    - **2,000 Yen/person for transfer** (for every contracted work)
- 2 Installation of terminals, admission to/withdrawal from the system, preparation of manuals, establishing a council

## Other matters

- 1 Start of the system
  - Provisional operation\* to **be started on 15 November 2013** for works ordered from the national government and the public utility companies (expected to continue until the end of March 2014.)
  - \* Operated through traditional mail until the computer system and networking system will be established.
  - Operation for works ordered from the local governments will be determined after the consultation with local governments in cooperation with Ministry of the Environment.
- 2 Registration of radiation exposure doses during works completed before the launch of the system
  - To be registered in order after the fiscal year 2014.
  - Registration costs covered by participants after the fiscal year 2014.
- 3 Ensuring the effectiveness of the system
  - MHLW will include a statement requesting contractors to participate in the system with the decontamination guidelines, etc.
  - MOW will include a statement requesting contractors to participate in the system with the specifications, etc.