Attachment 1

Final Report of the Committee on the Organization for Registration Control of Radiation Exposure Doses for Decontamination and Related Works

26 December 2013

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## I Committee on the Organization for Registration Control of Radiation Exposure Doses for Decontamination and Related Works - Outline of the objectives of the Committee and the participants

#### 1. Objectives

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" (hereinafter referred to as "Ionizing Radiation Ordinance for Decontamination") requires employers to keep their radiation exposure dose records, etc. for thirty years, issue a copy of the records when the workers leave the job, and survey worker's past radiation exposure dose records at the time of employment in order to control radiation exposure doses of workers engaged in decontamination and related works, works under a designated dose rate, and works for disposing nuclear accident—derived wastes and other materials (hereinafter referred to as "workers.") The "Ordinance on Prevention of Ionizing Radiation Hazards" (hereinafter referred to as "Ionizing Radiation Ordinance") also has similar provisions. These provisions allow employers to appropriately control cumulative exposure doses even when workers have been employed at several different sites.

However, concern has been raised that cumulative exposure doses may not be properly maintained if a worker declares incorrect exposure doses received in the past in the exposure records survey at the time of his or her employment.

Therefore, the committee on studying the methods for systematic control of radiation exposure doses for decontamination and related works is held by employers commissioned for decontamination works directly from an orderer (hereinafter referred to as "the primary contractor").

- 2. Issues to be considered
- (1) Systematic operation and methods for using radiation passbooks
  - a. Methods for issuing radiation passbooks to all workers and obtaining their central registration ID numbers
  - b. Methods for statutory notification of exposure doses to workers with the radiation passbooks
  - c. Methods for statutory verification of exposure records at the time of employment with radiation passbooks
  - d. Methods for obtaining the implementation status of medical examination and special

education with the radiation passbooks

- (2) The roles of the exposure dose registration organization (See Attachment 1 for details)
  - a. Issuing applications for various types of registration
  - b. Periodical registration of exposure doses
  - c. Transfer of statutory records
  - d. Inquiry of past records
  - e. Irregular processing
  - f. Contribution for registration
  - g. System development
  - h. Operation of the registration control system
- (3) Other necessary considerations
  - a. Works and workers subject to registration control organization of exposure doses
  - b. Measures for works performed prior to the start of the registration control organization
  - c. Relationship with statutory transfer of medical examination records
  - d. A cross reference of radiation exposure doses and related data with "Radiation Exposure Dose Registration Control System" for workers at nuclear facilities (hereinafter referred to as "system for nuclear facilities").
  - e. Others
- 3. Structure of the committee
  - (1) The committee will be held by the members listed in Attachment 2.
  - (2) The chairperson will be selected from the committee members, and he or she will summarize the proceedings of the meeting. Members in the committee can be added as required.
  - (3) This committee is entitled to invite participants other than the regularly attending members.
- 4. Others

The Radiation Effects Association is responsible for administration of the committee.

Issues to be considered						
	(1) Types of registration					
Applications for	Registration items					
various types of	Registration methods (written application, electronic application)					
registration	Application form and the format for electronic application					
	Timing of application					
	(1) Periodical registration of exposure doses (purpose, roles, etc.)					
	(2) Period to be covered in the registration					
Periodical registration	(3) Timing of the registration (frequency)					
of exposure doses	) Registration items					
	Format for electronic application					
	(6) Registration of past exposure doses					
	(1) Management of medical examination records					
Transfer of statutory	(2) Transfer procedures					
records	Recording format (paper document or PDF)					
	(4) Registration of past exposure doses					
	(1) Items to be inquired (at the time of operating the personal computer					
	system or the server system)					
Inquiry of past records	(2) Methods (during the time of operating the personal computer system					
	or the server system)					
	(3) Relationship with the system for nuclear facilities					
Irregular processing	(1) How to correct, change, or delete registered records					
Integular processing	(2) Actions when exposure dose data has not been registered					
Contribution for	(1) Amount of contribution					
registration	(2) Timing of payment					
	(1) Functions and development schedules of the system at the dose					
	registration center					
System development	(2) System preparation by employers					
	(3) Data transfer system					
Or anotion of the	(1) Contents of work contract, memorandum on contribution, etc.					
Operation of the	(2) Protecting personal information privacy(confidentiality)					
registration control	(3) How to deal with participation in and withdrawal from the registration					
system	control organization: Development of work procedures and manuals					
	(4) Establishment and operation of a council					

## Members

Name of companies	Name and title	Remarks
Obayashi Corporation	Hideki Taniguchi: Director General for Labour and Safety	Recommendation of Japan Federation of Construction Contractors
Kajima Corporation	Naoki Tajima: Executive for Safety and Environment Department	Recommendation of Japan Federation of Construction Contractors
Shimizu Corporation	Toichi Kojima: Director General for Safety, Safety and Environment Department	Recommendation of Japan Federation of Construction Contractors
Taisei Corporation	Masaki Hikawa: Special Advisor, Safety Department, Safety Headquaters	Recommendation of Japan Federation of Construction Contractors
Kumagai Gumi Corporation	Yoshinao Tsuchiya: Executive Director, Safety Headquaters	Recommendation of Japan Federation of Construction Contractors
Okumura Corporation	Kimio Yoshimura: Director, Health and Welfare Division, Department of Administrative Affairs, East Japan Branch	Recommendation of Construction Work Safety Institute
Maeda Corporation	Masakatsu Kato: Executive Officer for Safety	Recommendation of Construction Work Safety Institute
ATOX Corporation	Kazunori Minato: Director, Radiation Management Division, Environmental Restoration Office	Recommendation of Technical Advisory Council on Remediation and Waste Management
Chiyoda Technol Corporation	Koichiro Negishi: Deputy Director General, Nuclear Project Headquaters	Recommendation of Technical Advisory Council on Remediation and Waste Management
Tokyo Power Technology	Hiromitsu Kobayashi: Technology Management Group, Nuclear Project Headquaters	Recommendation of Technical Advisory Council on Remediation and Waste Management

## Observers

	Hajime Tokutsu: Head, Office for Radiation Protection of Workers			
	Industrial Health Division			
	Occupational Safety and Health Department			
Minister of Health	Labour Standards Bureau			
Ministry of Health, Labour and Welfare	Ministry of Health, Labour and Welfare			
(MHLW)	Shojiro Yasui: Deputy Head, Office for Radiation Protection of Workers			
	Industrial Health Division			
	Occupational Safety and Health Department			
	Labour Standards Bureau			
	Ministry of Health, Labour and Welfare			
	Shohei Okano: Deputy Head, Director's Office for Decontamination			
	Environment Management Bureau			
	Ministry of the Environment			
Ministry of the	Yuiko Nakata: Chief, Director's Office for Decontamination			
Environment (MOE)	Environment Management Bureau			
	Ministry of the Environment			
	Masayoshi Minami: Deputy Director, Waste Management Division,			
	Waste Management and Recycling Department, Minister's Secretariat,			
	Ministry of the Environment			
Japan Federation of	Kanji Kimura: Director General for Safety			
Construction Contractors	Takashi Mori: Director General for Environment			
National General				
Constructors	Hidenori Maruya:Director General for Labour			
Association of Japan				
Federation of Electric				
Power Companies	Yasuhiro Sueyoshi:Deputy Director General of Safety			
(FEPC)				
Tokyo Electric Power	Toshiyuki Hayashida: Unit Chief, Nuclear Safety and Supervisory			
Company	Department, Nuclear Power and Plant Sitting Division			
Japan Atomic Power	Wataru Abe: Deputy Head, Nuclear Power Generation Control Office &			
Cooperation	Group Manager, Environment Safety			

## Secretariat

	Masami Ikai, Managing Director
	Kenjiro Miyabe: Director, Dose Registration Center for Radiation
Radiation Effects	Employees
Association	Atsuo Ito: Deputy Director, Dose Registration Center for Radiation
Association	Employees
	Yoshiaki Mitsumori: Assistant to Director, Dose Registration Center for
	Radiation Employees

#### II Issues discussed in the committee

- First Committee Meeting (8 August 2013)
  - Investigation of the current status of the registration organization and freestyle discussion on the operational methods of the registration organization
- Second Committee Meeting (27 August 2013)
  - > Reply to questions raised at the first meeting and discuss each issue
- Third Committee Meeting (9 September 2013)
  - > Discussion on the draft outline of the interim report
- Fourth Committee Meeting (27 September 2013)
  - > Discussion on the draft interim report based on the discussions about the draft outline
- Fifth Committee Meeting (8 October 2013)
  - Final discussion on the draft interim report
- Sixth Committee Meeting (24 December 2013)
  - Discussion on the final draft report

# **III** Establishing the Organization for registration control of radiation exposure doses for decontamination and related works

The members of the committee came to an agreement about establishing the Organization for registration control of radiation exposure doses for decontamination and related works as follows:

#### Part 1 Scope

#### 1 Objectives

Organization for Registration control of radiation exposure doses for decontamination and related works (hereinafter referred to as "registration organization") aims to achieve the following objectives:

- (1) Establish a registration system that takes advantage of the radiation passbook that allows involved primary contractors to verify workers' past exposure doses when workers are successively employed by different employers.
- (2) Establish a registration system that can provide information such as past cumulative exposure doses and the employment history when a worker suffers from a health problem after several ten years.
- (3) Establish a registration system in coordination with the existing "radiation passbook" and the system for nuclear facilities.
  - (Note) A person who owns his radiation passbook is obliged to record radiation exposure doses at facilities under the Laws Concerning the Prevention of Radiation Hazards from Radioisotopes and Others. Coordination with the central dose registration system will be considered in the future.
- 2 Scope
  - (1) The dose control organization shall be used by the primary contractors which were assigned "soil decontamination and related works," "works for collecting waste, etc.," and "works for handling designated contaminated soil and wastes" defined in paragraph 7, Article 2 and "works under a designated dose rate" defined in paragraph 8, Article 2 of the Ionizing Radiation Ordinance for Decontamination, and the works for disposing nuclear accident-derived wastes, etc. specified in "radiation works" in paragraph 3, Article 2 of the Ionizing Radiation Ordinance (hereinafter referred to as "decontamination works"). It should be noted that whether the dose control organization should be used by employers other than those described above will be considered as needed.
  - (2) The primary contractors that have received a contract for the decontamination works (excluding the works related to the disposal of accident-derived waste etc.) shall

participate in the system by means of the methods listed below <sup>(Note 1)</sup>.For the time being, the dose control organization shall be used by the primary contractors who have been commissioned decontamination works by the Government or the public corporation <sup>(Note 1).</sup>

- (a) Participate in all the actions specified in Parts 2, 3, and 4 for decontamination works in the special decontamination area <sup>(Note 2)</sup>.
- (b) As for decontamination works in areas other than the special decontamination area, participate only in the transfer of exposure dose records and results <sup>(Note 3)</sup> for the decontamination ionizing radiation medical examination or the ionizing radiation medical examination/ionizing radiation medical examination/ionizing radiation medical examination?") after workers left the job as specified in Part 4.
- (3) The primary contractors that have received a contract for the disposal work of accident-derived waste etc. shall participate in all activities provided in Sections 2 to 4.
  - (Note 1) Even in the case of the decontamination works in other than the special decontamination area, the primary contractors shall be allowed to participate also in Sections 2 to 4.
  - (Note 2) Special decontamination area defined in paragraph 1, Article 25 of "The Act on Special Measures Concerning the Handling of Environmental Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District Off the Pacific Ocean Earthquake That Occurred on 11 March 2011" (Act on Special Measures Concerning the Handling of Environmental Pollution).
  - (Note 3) As it is not clear how much information the primary contractors have obtained about decontamination or ionizing radiation medical examination results of workers engaged in decontamination works ordered by the local government, the primary contractors shall be allowed to participate only in the transfer of exposure dose records for the time being.
  - (Note 4) If the primary contractors that have received a contract for the decontamination work which the local government implements independently without regard to the national financial measures or some carriers etc. which are not subcontractors related to the primary contractors wish to participate in this system, they shall participate in the system basically by means of the method described in (2) a.

#### Part 2 Systematic operation of the radiation passbook control

#### 1 Obtaining the radiation passbook

(1) The primary contractors involved in decontamination works shall apply for issuance of radiation passbooks for their workers or their subcontractors' workers if they have not obtained them yet. It should be noted that the application for the issuance shall be submitted by the subcontractors if the subcontractors are able to implement radiation control work on their own (hereinafter such subcontractors are referred to as "the designated subcontractors.")

- (2) The relevant subcontractors <sup>(Note)</sup> shall submit the radiation passbooks for all workers, who will be newly engaged in decontamination works before assigning them to any work, to the primary contractor. As for workers who have not yet obtained radiation passbooks, submit the application form and attachments for issuance of radiation passbooks to the primary contractor.
- (3) If a worker left his or her job at the time when his or her radiation passbook was issued, the primary contractor or the designated subcontractor shall record his or her exposure doses for the period until he or she leaves the job on his or her radiation passbook and immediately return it to the subcontractor. In this specific case, the subcontractor shall deliver the radiation passbook to the worker who left his or her job.

(Note) "The relevant subcontractors" mean the contractors that carry out a part of the project of the primary contractor. Therefore, in usual cases the carriers which transport construction materials etc. are not regarded as relevant subcontractors.

- 2 Control of radiation passbooks and notification of exposure doses
  - (1) The primary contractors or designated subcontractors shall implement the following actions:
    - a. Keep and control radiation passbooks of their workers or their subcontractors' workers.
    - b. Notify their workers or subcontractors of exposure doses of the workers within every three months (within a month for women), and record the exposure doses in their radiation passbooks.
    - c. When their workers or their subcontractors' workers leave the decontamination work site, record the cumulative exposure doses of the workers for the work period on their radiation passbooks, and immediately return the passbooks to their workers or subcontractors.
  - (2) The subcontractors shall implement the following actions:
    - a. Notify workers of their exposure doses sent by the primary contractor based on (1)-b.
    - b. When a worker leaves his or her job, receive his or her radiation passbook from the primary contractor, and securely return it to him or her.
      - (Note 1) As with the system for nuclear facilities, these procedures are based on the assumption that radiation passbooks will be used to assess the latest exposure and working status of a worker during the periodical registration, which are not registered in the dose control system.

- 3 Obtaining information on the implementation status of medical examinations for workers and recording the information on their radiation passbooks
  - (1) The primary contractors or designated subcontractors shall implement the following actions:
    - a. Obtain information on the implementation status of decontamination or ionizing radiation medical examinations and specified medical examinations for their workers and subcontractors' workers.
    - b. Record the obtained information of the decontamination or ionizing radiation medical examinations of their workers and subcontractors' workers on the radiation passbooks.
  - (2) The subcontractors shall implement the following actions:
    - a. Submit the primary contractor a copy of the decontamination or ionizing radiation medical examination and the results of specified medical examination of a worker who is newly engaged in decontamination works.
    - b. Provide the decontamination or ionizing radiation medical examination and the specified medical examination to full-time workers engaged in decontamination works once every six months on a regular basis and submit a copy of the results to the primary contractor.
    - c. Make sure that the decontamination or ionizing radiation medical examination results were recorded on radiation passbooks when returned from the primary contractor. If any information was found to be omitted, add it on the radiation passbooks.
- 4 Obtaining information on the implementation status of special education for workers and recording the information on their radiation passbooks
  - (1) The primary contractors or designated subcontractors shall implement the following actions:
    - a. Provide special education to their workers and subcontractors' workers if they have not already taken courses in such education.
    - b. Record the obtained results of the special education for their workers and subcontractors' workers on their radiation passbooks.
  - (2) The subcontractors shall implement the following actions:
    - a. Check if workers who are newly engaged in decontamination works have taken the courses in special education. If not, require them to take the courses in special education provided by the primary contractor or take the matter into your own hands.
    - b. Make sure that the implementation status of special education is recorded on their radiation passbooks when returned from their primary contractor. If any information was found to be omitted, add it on the radiation passbooks.

- Part 3 Operation methods for registration of exposure doses and inquiring about past records Attachment 4 shows the relationship between events concerning decontamination works and their registration procedures.
- 1 Registration of work sites
  - (1) Overview

The primary contractor shall register the name of the work sites for their decontamination works and the contracted work name per work site into the following center. The dose registration center for radiation workers that has been established in the Radiation Effects Association (hereinafter referred to as "the dose registration center") shall issue work site code and work code to the primary contractor. The primary contractor shall use those codes in the subsequent process of application.

(2) Registration field items

The primary contractor shall fill in the registration items shown in Attachment 3 in the application form.

- (3) Timing of registration
  - a. At the time of establishing a work site
  - b. At the time of closing the work site
  - c. At the start of the work under the contracted work name (when there are multiple works)
  - d. At the end of the work under the contracted work name (when there are multiple works)
- (4) Registration methods

Use either of the following methods:

- a. Mail the application form to the dose registration center.
- b. The use of a dedicated computer terminal to request changes in the contents of the registration will be considered.
  - (Note 1) Multiple contracted work names can be registered for a single work site. This allows primary contractors to add exposure doses or inquire exposure dose records under each contracted work name.
  - (Note 2) Each contracted work name shall be registered in the registration of a work site. In principle, exposure doses of decontamination workers shall be registered per contracted work name during the periodical registration of exposure doses. However, any doses that cannot be separated by the work name may be registered under the main contracted work name.
- 2 Periodical registration of exposure doses

#### (1) Overview:

The primary contractor shall register the items of a, b, and c described below per contracted work name regarding workers engaged in decontamination works on the quarterly reporting. The registered information shall be kept in a database of the system for decontamination works, which can be accessed by the primary contractors participating in the system for inquiring about workers' past records.

- a. Registration for workers' personal identification items
- b. Registration for workers' work log (contracted work name, work starting date, work ending date)
- c. Registration of workers' exposure doses under the contracted work name in the quarterly reporting
- (2) Registration information

The primary contractor shall register the information on each item described in Attachment 3 to the dose registration center.

(3) Registration methods

The primary contractor shall send the registration information in the CSV format according to the specified order of items.

(4) Timing of registration

The primary contractor shall register records by three months after the last date of the quarterly reporting.

When the work is finished in the middle of the quarter, the records shall be registered within three months after the completion of the work.

- (Note 1) This plays a role not only in registering for exposure doses but also in registering information of decontamination workers and their work logs (where and when they worked) in the system for decontamination works.
- (Note 2) As with the system for nuclear facilities, these procedures are based on the assumption that radiation passbooks can be used to check the latest exposure and working status of a worker during the periodical registration, which are not registered in the dose control system.
- (Note 3) Employers responsible for the registration shall check for any errors or discrepancies in the registered information via a server and modify the information as required.
- (Note 4) The number of registered decontamination workers is used as a rationale for estimating the amount of contribution.
- 3 Inquiry of past records
  - (1) Overview

The primary contractor shall be allowed to inquire about the following past records:

a. Inquiry of past records regarding periodical registration of exposure doses

Using a dedicated computer terminal, the primary contractor shall be able to inquire all of the registered periodical exposure dose records including those registered by other primary contractors who participated in the registration system. The dedicated computer terminals will be installed at the registered work sites.

- b. Inquiry of transferred past records
  - (i) The primary contractor shall be allowed to inquire about transferred dose records and decontamination or ionizing radiation medical examination records. The inquiry of transferred records shall be requested by sending an application form via traditional mail.
  - (ii) The primary contractor shall be able to inquire all of the registered records of exposure doses including those transferred by other primary contractors who participated in the registration system. As for the results of medical examination, the primary contractors shall be able to inquire about such records transferred only by themselves.
  - (iii) The subcontractors shall be able to inquire about the records associated with their workers only.
- (2) Items for inquiring about past records
  - a. Inquiring about past records regarding periodical registration of exposure doses
    - (i) Presence of decontamination workers in the registration
    - (ii) Verification of personal identification information
    - (iii) Verification of exposure doses
    - (iv) Work log (work site, work starting date, resignation date)
  - b. Inquiring about transferred past records
    - (i) Records of exposure doses
    - (ii) Results of decontamination or ionizing radiation medical examinations
- (3) Inquiring about the possession of the radiation passbook

The primary contractor who participates in the system in terms of transfer of exposure dose records and other procedures only in accordance with Section 2 (2)-b in Part 1 can ask the agency that issue radiation passbooks to verify whether workers have the passbooks if necessary (additional cost will be required).

- (Note 1) As the participating employers are regarded as the user sharing the database for the system for decontamination works, it is decided that only workers registered in the system for decontamination works are allowed to inquire about their past records.
- (Note 2) When a worker engaged in decontamination work under the direct supervision of Ministry of Environment declares that he or she does not have his or her radiation passbook, the agency that

issue radiation passbooks will check for his or her presence in the system for nuclear facilities during the issuance process

- 4 Irregular process
  - (1) Modification of information in the registration records

The primary contractor shall modify the registration information with the proper means in case when any errors are found.

- (2) Differences in the information between the radiation passbook and the registration system A person who found any discrepancy between the records in radiation passbooks and cumulative exposure doses registered in the system shall contact the primary contractor and conduct a necessary investigation. If any errors are found in either of the cumulative exposure doses, the primary contractor shall immediately correct the error(s).
- (3) Modification at the time of the registration procedures

If any warning messages or catastrophic errors occurred when the exposure doses and others were registered on a regular basis in the system for decontamination works, the dose registration center would notify the registered site with such information. The primary contractor shall review the information and take appropriate response actions such as checking and modifying the inputted data.

(4) Response to anomalies and unexpected events

If any anomalies and/or unexpected events occurred, a person who found such events shall contact the primary contractor and the most appropriate response measures shall be taken based on discussions between the primary contractor and the dose registration center. If such events were caused by the subcontractor, the primary contractor should require the subcontractor to submit the reason in a written format and keep the document at the primary contractor's office.

- (Note) When inquiry about past records revealed discrepancies between the registered exposure doses and those recorded on a radiation passbook, the period of cumulative doses should be checked first. If this still does not explain the discrepancies, then it means that the errors exist in either of the doses. Thus, the erroneous record needs to be investigated and modified.
- 5 A cross reference of data with the system for nuclear facilities
  - (1) Overview

The system for decontamination works shall be established independently from the system for nuclear facilities. However, both systems shall be established to function as the decontamination management tool in an integrated manner by allocating roles or sharing some of the information.

#### (2) Inquiry of past records

From the standpoint of personal information privacy protection, the primary contractor shall be limited to inquire about past records of the workers registered in the system for nuclear facilities whose records are registered in the system for decontamination works from the exclusive terminal of the system for decontamination works.

(3) Control of the dose registration number

The dose registration center shall control workers' personal identification items and dose registration numbers in the system for nuclear facilities. The results of maintenance for the system for nuclear facilities shall be reflected onto the system for decontamination works.

(Note) The system for nuclear facilities and the system for decontamination works have various participation rules and members. Thus, due consideration should be given to the rules and the provisions for personal identification privacy protection when information in each system is used.

#### Part 4 Transfer of exposure dose records and medical examination results

#### 1 Statutory transfer of exposure dose records

- (1) The primary contractors shall implement the following actions:
  - a. Transfer the exposure dose records of their workers and their subcontractors' workers regarding the items specified in Attachment 3 to the dose registration center as the statutory transfer of records at the end of the work period for decontamination works (when discontinuing the business or after the five-year period for keeping the records for works for disposing nuclear accident-derived wastes has passed).
  - b. Identify the exposure dose records and inform the subcontractors of the records transferred to the dose registration center.
- (2) The relevant subcontractors shall submit a written document to the primary contractor, stating that the subcontractors agree to transfer the exposure dose records informed by the primary contractor to the dose registration center through the primary contractor by the time the contract with the primary contractor expires.
- (3) The following points shall be noted when the record is transferred.
  - a. Any form is acceptable to transfer the exposure dose records as long as the items specified in Attachment 3 are included. The records can be transferred as printed documents or image data (PDF or TIFF files).
  - b. The records shall be transferred basically within three months after the completion of the work. However, it should be noted that this can be extended to within six months upon consultation with the dose registration center if there are any inevitable reasons such as receiving excessive records to be transferred.

- c. The primary contractor shall conduct "the registration of transferred exposure dose records" at the same time when the statutory records are transferred. Use the registration of transferred exposure dose records to make the registered workers searchable in the system by linking the information with microfilm images of the statutory records. The registration field items are described in Attachment 3.
- d. If a worker engaged in a work ordered by the local government has not yet obtained the dose registration number, transfer his or her record with the dose registration number field left blank in the registration of transferred exposure dose records in Attachment 3.
  - (Note 1) From the standpoint of personal information privacy protection and in order to prevent any statutory problems, the decision was made to require the subcontractor to submit a written document to the primary contractor stating that the subcontractor, obliged by the statute, agrees to transfer the exposure dose records through the primary contractor.
  - (Note 2) Transfer of exposure dose records represents the evidence that the employer recorded exposure doses in accordance with the laws and regulations. Transfer requires printed documents or image data files that can be saved in the condition in which the employer recorded.
  - (Note 3) If the doses received in the past are not available through inquiry, record the past exposure doses submitted by workers in a written form.
- 2 Statutory transfer of decontamination or ionizing radiation medical examination results
  - (1) The primary contractors shall implement the following actions:
    - a. Transfer the results of decontamination or ionizing radiation medical examinations of their workers to the dose registration center as the statutory transfer of records at the end of the work period for decontamination work (when discontinuing a business or when the five-year period for storing the records has passed for works for disposing nuclear accident-derived wastes).
    - b. Transfer a copy of the part of the results related to the decontamination or ionizing radiation medical examinations submitted by the subcontractors according to Section 3 (2) a or b in Part 2, to the dose registration center at the end of the work period for the decontamination work.
  - (2) The relevant subcontractors shall submit a written document to the primary contractor stating that the subcontractors agree to transfer the results of decontamination or ionizing radiation medical examinations to the dose registration center through the primary contractor by the time the contract with the primary contractor expires.
  - (3) The following points shall be noted when the record is transferred:
    - a. Any form is acceptable to transfer the records as long as the items specified in Attachment 3 are included. The records can be transferred as printed documents or image data (PDF or

TIFF files).

- b. The records shall be transferred basically within three months after the completion of the work period. However, it should be noted that this can be extended to within six months upon consultation with the dose registration center if there are any inevitable reasons such as receiving excessive records to be transferred.
- c. Conduct "the registration of transferred decontamination or ionizing radiation medical examination records" at the same time when results of decontamination or ionizing radiation medical examinations are transferred. Use the registration of the transferred decontamination or ionizing radiation medical examination records to make the registered workers searchable in the system by linking the information with microfilm images of the statutory records. The registration field items are described in Attachment 3.
- d. Results of decontamination or ionizing radiation medical examinations do not require including the dose registration number. However, page number shall be added to link the information with the transferred registration.
- e. If a worker engaged in a work ordered by the local government has not yet obtained the dose registration number, transfer his or her records with the dose registration number field left blank in the registration of transferred exposure dose records in Attachment 3.
  - (Note 1) From the standpoint of personal information privacy protection and in order to prevent any statutory problems, the decision was made to require the subcontractor to submit a written document to the primary contractor stating that the subcontractor, obliged by the statute, agrees to transfer a copy of medical examination results through the primary contractor.
  - (Note 2) It was clarified that the primary contractor is responsible only for the transfer of medical examination results submitted by the subcontractor.
  - (Note 3) It was clarified that transferring of records can be conducted within a certain period so that administrative work for the transfer would not be concentrated on a particular point in time.
  - (Note 4) It was clarified that transferred records are limited to the copies of decontamination or ionizing radiation medical examination records.
- Part 5 Operation of the dose control system
- 1 Expense for participating in the dose control system
- (1) Scope of the contribution

[Employers who conduct periodical registration of exposure doses and the transfer of records]

• Contribution that primary contractors compensate shall include the cost for the periodical registration of exposure doses and the transfer of records.

[Employers who conduct transfer of records only]

- Contribution that primary contractors compensate shall include the cost for the transfer of records only.
- (2) Procedures and the timing of payment

[Employers who conduct periodical registration of exposure doses and the transfer of records] Primary contractors shall compensate the following contributions:

- a. Compensation shall be made in each period of the periodical registration of exposure doses (Quarters from 1 April to 30 June, from 1 July to 30 September, from 1 October to 31 December, and from 1 January to 31 March).
- b. Contribution of each person shall be specified annually and shall be compensated each fiscal year.
- c. The contribution (annual) for the number of workers engaged in decontamination works who were registered at the first periodical registration of exposure doses (including the date when the works started) shall be compensated by primary contractors within predefined due dates (the last day of the subsequent month of invoice) based on the invoice from the dose registration center.
- d. After the first periodical registration of exposure doses, the contribution shall be invoiced and compensated for workers engaged in decontamination works who were additionally registered after the previous registration.
- e. The dose registration center shall confirm that the compensation has been made by primary contractors and shall issue receipts <sup>(Note 1)</sup>.
- f. If the works are to be continued until the subsequent fiscal year, the contribution of the subsequent year (annual) shall be invoiced and compensated at the first periodical registration of exposure doses in the fiscal year immediately after the beginning of the subsequent fiscal year.
- (e.g. a timeline for the compensation for contribution and sending receipts: A case concerning periodical registration of exposure doses for the period from April to June)
- Periodical registration of exposure doses: by the end of September
- Sending an invoice: About 7 days after the registration (early in October, when registered at the end of September)
- Compensation for contribution: By the last day of the subsequent month of the issuance of the invoice (at the end of November, when invoiced early in October)
- Sending receipts: About 7 days after the compensation (early in December, when paid at the end of November)

[Employers who conduct the transfer of records only]

Primary contractors shall compensate for the contributions in the following manner:

a. Payment shall be made at the completion of each work.

- b. Contribution for the number of workers in the records which are taken over shall be paid by each employer within predefined due dates (the last day of the subsequent month of the issuance of the invoice) based on the invoice from the dose registration center.
- c. The dose registration center shall confirm that the compensation has been made by each employer and shall issue receipts.
- (3) Frequency of the compensation

[Employers who conduct periodical registration of exposure doses and the transfer of records]

- Four times a year (quarterly) in accordance with the frequency of periodical registration of exposure doses
- [Employers who conduct transfer of records only]
  - Once at the completion of works
- (4) Amount of the payment (Note 2)

[Employers who conduct periodical registration of exposure doses and the transfer of records]

a. Contribution in FY2013 and FY2014

Contribution shall be based on the provisional operation prescribed in Section 5 of Part 6 (hereafter the system after the end of the provisional operation period shall be referred to as "full-scale system")

- FY2013: Annual amount ¥3,000/person (including contribution for the various types of registration and the transfer of records and the expense for establishing the system)
- FY2014: Annual amount ¥4,500/person (including contribution for the various types of registration and the transfer of records, the expense for establishing the system, and the expense for the registration of exposure doses caused by decontamination works conducted before starting the dose control system prescribed in Section 3 of Part 6)
- b. Contribution in FY 2015 or subsequent years

The contribution after the start of operation for the full-scale system shall be determined separately.

[Employers who conduct the transfer of records only]

- ¥ 2,000 / person for each transfer of records
- (Note 1) The contracted work name shall be specified in the receipt.
- (Note 2) This includes the consumption tax.
- (Note 3) This provision shall allow employers who conduct the transfer of records only to transfer records after each completion of works by separating the time for compensation and the amount of contribution by the type of participation to the dose control system.
- (Note 4) Contribution for periodical registration of exposure doses and the transfer of records shall be

determined in 1-year unit and compensated in each fiscal year in accordance with the work periods. For example, concerning workers who will engage in decontamination works on or before March 31, 2014, periodical registration of exposure doses shall be conducted on and after April 1. However, the contribution for FY2013 shall be applied. Furthermore, if the works are to be continued until the subsequent fiscal year, the assessment of the contribution shall be required for both years.

#### 2 Installation of terminals

Terminals need to be installed to start the operation of the full-scale system.

(1) Work site for installing terminals

Primary contractors shall install terminals with the Internet access at their own expense (cost) at registered work sites.

- (2) Location for installing terminals It shall be preferable to install terminals in the access-controllable offices or at the places where the screen of the terminal cannot be seen from pathways.
- (3) Conditions of terminals

Terminals shall be required to have supported Windows OS, installed with the software such as Internet Explorer and antivirus software.

In addition, updated software should be used regularly as a security measure.

(4) Personal information privacy protection, etc.

Primary contractors shall pay attention to the issue of personal information privacy protection by taking measures such as limiting operators of the terminal.

Connecting to the dose registration center should be conducted through an encrypted communication system such as SSL or SSL-VPN to ensure the security of channels and a mechanism that only authorized user can access shall be applied by setting their user ID and password.

(Note 1) Employers who install the terminals shall be responsible for operating the terminals.

(Note 2) Under the provisional system, an encryption scheme for mailing the periodic data of exposure doses needs to be considered hereafter.

3 Participation in and withdrawal from the dose control system (A contract with the Radiation Effects Association)

The Radiation Effects Association shall have a contract with participating employers at the start of the dose control system or with additional employers who intend to participate in the dose control system. The contract documents should include conditions of the contract, such as the registration procedures and storing information (data), expense, and management of personal information privacy. However, employers who conduct transfer of records only according to the dose control system shall be able to participate in the dose control system through gaining approval by submitting application forms.

4 Development of work procedures and manuals

The dose registration center shall take the initiative in preparing and revising the guidelines and manuals for the operation of the dose management system and the registration procedures. The dose registration center shall distribute the documents to make relevant employers become aware of those guidelines and manuals.

- 5 Start of a council to maintain the registration and the management of the dose control system
  - (1) Council meetings for the members of the dose control system shall be held to exchange opinions regularly (about twice a year) in order to ensure and promote the operation of the dose control system. Members in the council shall constitute all the participating employers of the dose control system (excluding the employers who conduct the transfer of records only). Observers shall be accepted as appropriate.
    - (Note 1) Contract documents shall include basic points for the operation of the dose control system to ensure compliance of the Radiation Effects Association and the participating employers.
    - (Note 2) A rule shall be developed for sharing and management of personal information privacy and documented in the contract documents or in a memorandum if necessary. In addition, the basic policy for personal information privacy protection shall be established and announced on the website. The case in which the personal information will be used shall also be announced through brochures.
    - (Note 3) This provision allows employers who conduct transfer of records only to participate in the dose control system by means of submission and approval of application forms.

#### Part 6 Others

- 1 Start of the dose control system
  - (1) This dose control system shall be launched on 15 November 2013. Any part of the system, however, that addresses the primary contractors engaged in the decontamination works for which local governments or state organizations other than Ministry of Environment place an order will be launched on 1 April 2014.<sup>(Note)</sup>
  - (2) A provisional operation period shall be from the starting date of the system to 30 November 2014.
    - (Note) The primary contractors who want to participate in the dose control system shall be admitted to participate in the system even prior to the date determined in (1).

2 Periodical registration of exposure doses for ongoing works

Periodical registration of exposure doses for works already in operation on the starting date of the dose control system shall be conducted as follows:

- Periodic reports of exposure doses in the quarter including the starting date of the dose control system shall be registered within 3 months from the last day of the quarter.
- (2) Exposure doses before the quarter including the starting date of the dose control system shall be registered with respect to each quarter as periodical registration of exposure doses stated in Section 2 of Part 3. The registration shall be conducted as early as possible (by the end of March, 20134 in principle). The timing shall be determined on the case-by-case basis after the consultations with the dose registration center.
- (3) In this case, the contribution for the periodical registration of exposure doses in FY2013 shall be those for FY2013 stated in Section 1-4 of Part 5. The periodical registration of exposure doses in FY2012 shall require the contribution separately in accordance with the provision in Section 1-2 of Part 5 (The amount of the contribution shall be the same as those for FY2013.).
- 3 Acquisition and registration of exposure doses during decontamination works completed before the starting date of the dose control system
  - (1) Since the dose control system shall be in the provisional operation period in FY2013, the registration of exposure doses and the delivery of radiation exposure doses etc. during the decontamination works completed before the starting date of this dose control system shall be commenced from FY2014.
- (2) Primary contractors who are engaged in decontamination works who completed the project before the operation starting date defined in Section 6-1(1) shall strive to register and transfer the following items wherever possible:
  - Registration of items based on those for periodical registration of exposure doses stated in Section 2 of Part 3.
  - b. Statutory transfer of exposure dose records stated in Section 1 of Part 4
- (3) Concerning the aforementioned registration, the exposure doses for each quarter shall be registered all at once. Exposure dose data for multiple quarters shall also be registered at the same time. Concerning the transfer stated in b shown above, the exposure dose records during the whole work period shall be transferred altogether in principle.
- (4) The registration and transfer shall be as early as possible within the period by the end of March 2014. The timing shall be determined on a case-by-case basis after the consultations with the dose registration center.
- (5) Contribution regarding the registration and the transfer stated in (2) shall not be required and shall be covered minimally and widely by part of the contribution from the new registration in

FY2014 and later.

- (Note 1) The completed exposure dose records without the central registration numbers shall be registered as those without the central registration numbers. The dose registration center shall assign the tentative numbers to those records and merge those data by the name-based aggregation when issuing new passbooks.
- (Note 2) If the completed exposure dose records do not have the periodical registration of exposure doses, the other primary contractors cannot inquire about past records of exposure doses during the time and cannot confirm the 5-year cumulative exposure doses. Such undertaking shall diminish the merit of this dose control system. Furthermore, the inquiry about past records will be no use without the registration of exposure doses for each quarter. This is because the system for decontamination works is controlled by calendar years while the system for nuclear facilities is managed by fiscal years.
- (Note 3) Since the registration and delivery of exposure doses after the completion of works has wide benefits to primary contractors who operate decontamination works in and after FY2014, the expense of the registration shall be covered minimally and widely by part of the contribution from the new registration to operate works subsequently.
- (Note 4) From the perspective of preserving documents, transfer of medical examination records shall be optional.
- 4 Ensuring effectiveness of the dose control system
- In order to ensure effectiveness of this dose control system, the Ministry of Health, Labour and Welfare shall include a statement requesting the participation of employers to this dose control system in the relevant guidelines.
- (2) In order to ensure effectiveness of this dose control system, the Ministry of the Environment shall include a statement requesting the participation of employers to this dose control system in the relevant specifications, etc.
- 5 Response measures during the provisional operation period
- (1) Registration of exposure doses

Stand-alone computers that are not part of any network shall be installed in the dose registration center and the dose control system shall be operated with the limited functions until the full-scale system will be in operation (the period from FY2013 to the middle of FY2014). Therefore, the following actions including the registration shall be taken during this period:

- a. Registration of the work site stated in Section 1 of Part 3
- b. Registration of exposure doses periodically stated in Section 2 of Part 3
- c. Inquiry about past records stated in Section 3 of Part 3 (excluding "inquiry about the

transfer of records" stated in b of (2) inquiry items of past records. In addition, inquiry items of periodical registration of exposure doses shall be replied by mail in a simplified form)

- (2) Transfer of records
  - a. When statutory records shall be transferred from primary contractors based on Sections 1 and 2 of Part 4 during the provisional operation period, the dose registration center shall receive and keep the records. Uploading the transferred exposure dose records to the system and printing in microfilm shall start from FY2014. Therefore, inquiry about past records regarding "transferred records" prescribed in (1) b of Section 3 of Part 3 shall not be performed during the provisional operation period.
    - (Note) Concerning (1) and (2), the data shall be transferred from the personal computer system (registration to the full-scale system) when the full-scale system starts the operation. If the data registration error should occur during that time, the dose registration center shall make an inquiry to primary contractors to implement appropriate measures as needed.

## Main registration items required for registration control system of radiation exposure doses for decontamination and related works

	Registration for work sites	Periodical registration of exposure doses	Transfer and registration of exposure dose records	Transfer and registration of medical examination records
Items for registration application	Registering the following in an application form:         (a) Name of the work site (official)         (b) Name of the principal company         (c) Name of the contracted work (official)         (d) Starting date of the work         (e) Ending date of the work         (f) Contractee         (g) Address data (post code, location, addressee)         (h) Contact person (person in charge)         (i) Contact information (Phone, Fax)         (j) E-mail address         (k) PC terminals connection information (ID, password, IP address)	Registration in the designated CSV format* (a) Application code for the work site** (b) Subject year/quarter (c) Work code** (d) Dose registration number (e) Name (f) Date of birth (g) Sex (h) Work starting date (i) Work ending date (i) Effective dose (mSv) (k) Effective dose (X value)	<ol> <li>Records to be transferred         Records shall be transferred with paper documents or image data (PDF, TIFF). D each individual shall be sequential.         (1) Exposure dose records         (a) Name of work site for application         (b) Name of work         (c) Reporting date         (d) Name of employer         (e) Worker's name         (f) Dose registration number         (g) Date of birth         (h) Sex         (i) Duration (work starting date – leaving date)         (j) Past exposure records (first year of the work, during 4 years prior to the first y dose for 1 month (female), 3 month, 1 year, 5 year periods (in case of abc mSv/y)         (l) Tissue exposure doses during the covered period (abdominal exposure do pregnant women)         (m) Methods of evaluation (external, internal)         (n) Page (The arbitrary number shall be acceptable, if it corresponds to the transferred between the starts of the starts of the starts of the transferred between the transferred between the starts of the transferred between the trans</li></ol>	<ul> <li>documents or image data (PDF, TIFF). Data for each individual shall be sequential. (1) Ionizing radiation medical examination cards for individual [ Sequential page numbers (The arbitrary number shall be acceptable, if they correspond to the transferred registration)]</li> <li>(2) If the cards mentioned above are not used, other form shall be acceptable to describe all items in the cards. However the form shall be limited to the one which has a name seal of a doctor who performed the medical examination. (The arbitrary number shall be acceptable, if it corresponds to the transferred registration.)</li> </ul>
			(c) Name of employer       data is r         (d) Dose registration number       created         (e) Name of worker       created         (f) Date of birth       Excel fil         (g) Sex       ** The         (i) Dota when the worker leave the work       ** The	ormat: A form that separates data with commas. If nanaged with the Excel software, the form can be by designating the CSV form at output of the

Relationship between events on decontamination works and various types of registration

