Labour Standards Bureau Notification No. 0412-1
12 April 2013

To:
Directors
District Labour Bureaus

From:
Director
Labour Standards Bureau
Ministry of Health, Labour and Welfare (MHLW)
(Official seal imprinted)

Re: Enforcement of the Ministerial Ordinance to Revise Part of the Ordinance on Prevention of Ionizing Radiation Hazards

The "Ministerial Ordinance to Revise Part of the Ordinance on Prevention of Ionizing Radiation Hazards" (MHLW Ordinance No. 57, 2013, hereafter referred to as the "Revised Ministerial Ordinance") and "Rules on special education for works on the disposal of nuclear accident-derived waste" (MHLW Notification No. 140, 2013, hereafter referred to as "Rules on special education") were promulgated today, and will come into effect and apply except some provisions from 1 July 2013.

With the progress in decontamination, disposal of waste and soil contaminated with radioactive materials discharged by the accident of the TEPCO Fukushima Daiichi Nuclear Power Plant associated with the Great East Japan Earthquake on 11 March 2011 (hereinafter the waste and soil are referred to as "accident-derived waste" and the radioactive materials are referred to as "radioactive materials discharged by the accident") is expected to be conducted extensively. Under such circumstances, there is an increased need for the measures to protect workers engaged in those works from radiation hazards; therefore, the Revised Ministerial Ordinance and Rules on special education were formulated in order to define measures necessary to protect workers from radiation hazards in light of the characteristics of the works.

In addition, in a proper effort to support more appropriate promotion of the measures to protect workers from radiation hazards during the works to dispose accident-derived waste, "Guidelines for the Prevention of Radiation Hazards for Workers Engaged in Accident-derived Waste Disposal" (Labour Standards Bureau Notification No.0412-2, 12 April 2013, hereafter referred to as "Guidelines for disposal work") have been formulated in order to collectively show the measures specified in the "Ordinance on Prevention of Ionizing Radiation Hazards" (MHLW Ordinance No. 41, 1972, hereafter referred to as the "Ionizing Radiation Ordinance"), other measures that employer shall take, and the essence of the provisions specified in laws and regulations associated with the Industrial Safety and Health Act.

The objectives and contents of the Revised Ministerial Ordinance and Rules on special education are shown below. The district labour bureaus are expected to ensure that nothing goes amiss in implementing them together with the Guidelines for disposal work and to provide instructions to relevant employers, so that measures for the prevention of radiation hazards commensurate to the actual situation of the sites will be taken.

Notes

Section 1 Objectives of Revision

With the progress in decontamination, disposal of accident-derived waste is expected to be conducted extensively. Under such circumstances, there is an increased need for the measures to protect workers engaged in those works from radiation hazards.

With regard to the prevention of radiation hazards for workers engaged in works to decontaminate soil and wastes contaminated with radioactive materials discharged by the accident, "Ordinance on Prevention of Ionizing Radiation Hazard at Works to Decontaminate Soil and Wastes Contaminated by Radioactive Materials Resulting from the Great East Japan Earthquake and Related Works" (MHLW Ordinance No. 152, 2011, hereafter referred to as "Ionizing Radiation Ordinance for Decontamination") shall apply, because the radiation sources are dispersed and workers will be mainly engaged in works outdoors. On the other hand, with regard to works to dispose accident-derived waste, the Ionizing Radiation Ordinance shall apply, because the radiation sources are present at a fixed place and in a manageable manner, and workers will be mainly engaged in works indoors.

Although the Ionizing Radiation Ordinance prior to revision had some provisions specifying measures to be taken for handling, storage, or incineration of radioactive materials, considering the large volume of accident-derived waste, the large scale of the facilities, and the need for carrying out works for crushing and landfill of accident-derived waste, or works under the high dose equivalent rate, the Ionizing Radiation Ordinance was revised and the Rules on special education was enacted in order to define measures to protect workers from radiation hazards in light of the characteristics of disposal works of accident-derived waste.

Section 2 Detailed Matters

1. Relationship with the Ionizing Radiation Ordinance for Decontamination (Related to Article 6 of Supplementary Provisions)

(1) Because works conducted at the site where accident-derived waste is disposed of (hereafter, the work is referred to as "disposal of accident-derived waste", and the site is referred to as "disposal site"), as specified in Article 41-3 of the Ionizing Radiation Ordinance, were excluded from "decontamination works" specified in Article 2, paragraph 7 of the Ionizing Radiation Ordinance for Decontamination when the Ionizing Radiation Ordinance for Decontamination was revised as seen in Article 6 of the Supplementary Provisions of the Revised Ministerial Ordinance, works to decontaminate soil and wastes and to collect, transport, and store removed soil or contaminated waste at disposal sites shall not be governed by the Ionizing Radiation Ordinance for Decontamination, but by the Ionizing Radiation Ordinance.

(2) Because radiation works listed in Appended Table 2 of the Enforcement Order of the Industrial Safety and Health Act (Cabinet Order No. 318, 1972) were excluded from "works under a designated dose rate" defined in Article 2, paragraph 8 of the Ionizing Radiation Ordinance for Decontamination in accordance with revision of the Ionizing Radiation Ordinance for Decontamination pursuant to Article 6 of the Supplementary Provisions of the Revised Ministerial Ordinance, the radiation works listed in the same table among works where ambient dose rate exceeds 2.5 μSv/h due to radioactive materials discharged by the accident do not fall under "works under a designated dose rate", and shall be governed by the Ionizing Radiation Ordinance excluding "decontamination works" defined in Article 2, paragraph 7 of the Ionizing Radiation Ordinance for Decontamination.

2. General provisions (Related to Chapter 1)

Limit of dose in facilities, etc. (Related to Article 3-2)

a "1 mSv per week" stated in Article 3-2 paragraph 1 was defined in accordance with design base standards provided in the supplementary recommendation by the Radiation Council concerning adoption to domestic systems of the 1990 Recommendations of the International Commission on Radiological Protection (ICRP).

1 mSv per week corresponds to 25 μSv/h under the assumption that the number of working hours is 40 hours per week. In order not to exceed the standards, at least the concentration of radioactive materials in air shall be required to be equal to or less than the limit specified in Article 3, paragraph 3.

Also, the radiation dose limit stated in this Article shall be applied to the places where workers constantly access. This limit shall not be applied to the places where workers access only when conducting maintenance, inspection, or repair inside of the machinery such as crushing facilities, incinerators, accident-derived waste handling facilities, storage facilities, and landfill facilities.

b In the case of constructing a disposal site in special decontamination areas, etc. (special decontamination areas specified in Article 25, paragraph 1 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 No. 110, 2011) or intensive contamination survey areas specified in Article 32, paragraph 1of the same Act), measures, such as setting up shielding devices, shall be required to ensure that the effective dose, including that from the surrounding environment, does not exceed the standards stated in this Article at the places in accident-derived waste handling facilities, storage facilities and landfill facilities where workers constantly access.

c This Article mandates to reduce the effective dose to the limit or below by, such measures as, installing a shield. This Article was revised in order to clarify its objectives.

d The measures stated in paragraph 1 of this Article include the keeping of a sufficient isolation distance between the radiation sources and the places where workers constantly access.

3. Prevention of contamination with radioactive materials (except radioactive materials discharged by the above-stated accident) (Related to clause 1 of Chapter 4)

(1) Contamination inspection of workers leaving work rooms and inspection of contamination of items taken out of work rooms (Related to Articles 31 and 32)

a Article 31 stipulates contamination inspection of workers bodies and equipment worn, and Article 32 stipulates inspection of contamination of items taken out of work rooms. Considering the possibility of contamination to a certain extent not only of work rooms for handling radioactive materials stated in Article 22 and accident-derived waste handling facilities stated in Article 41-4, but also at other facilities or workplaces where maintenance and inspections of equipment are to be conducted, in order to prevent spreading of contamination in the workplace the requirement to provide a contamination inspection site was changed to the exit of the controlled areas where there may be contamination when the inspections are omitted.

b The "contamination inspection room" stated in Article 31, paragraph 1 shall be equipped with radiation measurement instruments used for the inspection, equipment for washing and decontamination, and facilities for temporary storage of contaminated waste such as used dust masks.

c The provisions in Article 44, paragraph 1, item 4 require the disposal operator to provide medical examinations to the workers for whom body contamination levels cannot be reduced to the surface contamination limit (40 Bq/cm2) or below listed in Appended Table 3 even after washing. In this case, the disposal operator shall direct those workers to leave the controlled area for the purpose of undergoing a medical examination.

(2) Storage facilities and incinerators (Related to Articles 33 and 35)

Because “contaminated objects” specified in Article 33 such as clothes used for decontamination, which do not meet the criteria with respect to quantity and concentration specified in each item of Article 2, paragraph 2, shall not be stored at storage facilities, these “contaminated objects” are excluded from the objects which meet the criteria stated in Article 33 and they shall be stored at storage facilities. This revision was aimed at ensuring the consistency of the provisions in Articles 33 and 37.

(3) Protective equipment (Related to Article 38)

This Article stipulates preparation and use of respiratory protective equipment at the sites of decontamination and emergency works. In addition to these works, the works to conduct maintenance and inspections of facilities or equipment may be assumed to cause workers possibly to inhale contaminated air exceeding the limit stated in Article 3, paragraph 3; therefore, the sort of works requiring preparation and use of respiratory protective equipment was modified to prevent workers from exposure resulting from non-use of the respiratory protective equipment at the said works.

4. Prevention of contamination by radioactive materials discharged by the accident (Related to clause 2 of Chapter 4)

(1) Clear indication of the boundary of the disposal site of accident-derived waste (Related to Article 41-3)

a This Article stipulates clear indication of the boundary of the disposal site in order to prevent people

other than relevant workers from unnecessary exposure. A boundary of a disposal site, which is not necessarily the actual site boundary, shall be allowed to confine the area necessary to conduct works for disposal of accident-derived waste.

b “Accident-derived waste” shall include removed soil stated in Article 2, paragraph 2, items 1 and 2 of the Ionizing Radiation Ordinance for Decontamination and contaminated waste stated in item 2 of the same paragraph, and also include other objects whose quantities or concentration of radioisotopes except radiocesium is larger than the values specified in Article 2, paragraph 2 of the Ionizing Radiation Ordinance due to concentration in the course of disposal of the said waste.

c "Disposal" of accident-derived waste shall include final disposal (burial), interim storage, interim processing (sorting, crushing, compression, concentration, and incineration, etc.), and the maintenance and inspections of the relevant facilities or systems. Also the management simply for storing ashes (including packing ashes into containers by a method in which workers do not touch anything directly, such as by remote handling), which turned out to exceed 10,000 Bq/kg, after incineration of municipal or industrial waste, or the management of sludge falling under the accident-derived waste generated at water supply and sewerage facilities, are not intended to include disposal of them. Therefore, such management is excluded from “disposal” stated in this Article, and shall be subject to the regulations of clause 1 of Chapter 4.

(2) Accident-derived waste handling facilities (Related to Articles 4-4 and 4-5)

a Materials, finishes, and structures specified in each item of Article 41-5, paragraph 1 shall be considered on the premise of access by trucks and mobile construction machinery to the facilities. Also, radiocesium, one of the main radionuclides in radioactive materials discharged by the accident, has a boiling point far above normal temperature and has extremely low vapor pressure in normal temperature, and therefore no provision is made for its presence in the gaseous phase.

b "Measures to control dust dispersion" stated in Article 41-5, paragraph 2 shall include installation of a local ventilation system with a dust collector, and spraying of small amounts of water to the extent that a drain is unnecessary. Also, the concentration of radiocesium in the air during the disposal of accident-derived waste is expected to be far less than that specified in Appended Table 1 even in the condition that radiocesium is dispersed to the maximum extent possible. Therefore strict air-tight structures shall not be required.

c Article 41-5, paragraph 3 aims at prevent the spread of the contamination such as by avoiding entries/exits to be kept open in consideration of the large size of the entries/exits of facilities for ensuring access of trucks, etc. and by conducting contamination inspections in the area between double-entry door. Also, “setting up double-entry door and others" shall include setting items which are made of materials that effectively prevent the spread of the contamination such as impermeable liners, and which can be opened or closed, and setting ventilation systems that can maintain airflow in the direction from outside to inside of the facility when entries/exits are covered by temporary tents connected to a facility handling accident-derived waste.

(3) Crushing equipment (Related to Article 41-6)

a This Article stipulates the requirements for sealing capability of equipment in order to prevent workers from being exposed to radiation from accident-derived waste and to prevent the spread of the contamination to the surrounding areas when accident-derived waste is crushed. In the case which does not meet the requirement stated in this Article including the case that dust may be dispersed into the vicinity of the equipment, the crushing system shall be placed within the accident-derived waste handling facilities stated in Article 41-4.

b "Crushing equipment" shall include pipes and joints that are attached to the equipment.

c "No possible gas leakage structure" and "no possible dust dispersion structure" shall mean that the equipment is required to have no possibilities of gas leakage or dust dispersion from the parts other than its supply and exhaust ventilation system. "No possible liquid leakage structure" shall mean that it is required to have no possibilities of liquid leakage from the parts other than its supply and exhaust ventilation system.

(4) Belt conveyors and other transportation equipment (Related to Article 41-7)

"Belt conveyors and other transportation equipment" stated in of Article 41-7, paragraph 2 shall include overhead travelling cranes.

(5) Landfill facilities (Related to Article 41-8)

a The interim storage based on burial of accident-derived waste shall not correspond to “storage”, but to “landfill”.

b This Article is the provision premised on the landfill receiving accident-derived waste packed into sealed containers as provided for by the text of Article 37, paragraph 1 or assumed measures for the provision of the same paragraph. The landfill receiving accident-derived waste without the said measures shall be at a facility that meets the requirement of accident-derived waste handling facilities.

Also, concerning the measures taken to prevent the dispersion of dust in the case of landfill of unsealed removed soil, the concentration of radiocesium in the air is far less than the concentration of radioactive materials listed in Appended Table 1 even in the estimation results based on the maximal safety-conscious assumption; therefore strict air-tight structures shall not be required. However, dumping needs be conducted in temporary tents or other locations surrounded by walls and ceilings. Once dumped items are covered with uncontaminated soil, the temporary tents may be removed or transferred to another place. This case shall require a concrete pit or water shielding lining to prevent spread of contamination.

(6) Application of mutatis mutandis (Related to Article 41-9)

The replacement of terms in accordance with application of mutatis mutandis shall be indicated in Attachment 1.

a Facilities to prevent dispersion (Related to Article 26)

Article 26 stipulates the measures taken to prevent droplets or dust of radioactive materials from adhering to the bodies of workers or equipment worn. In regard to disposal of accident-derived waste, it is not assumed that systems to prevent adhering of the materials will be installed, therefore the use of

protective equipment is mandated without exception.

b Contamination inspection in accident-derived waste handling facilities (Related to Article 29)

(i) Article 29 stipulates conducting regular contamination inspections of ceilings and floors, etc. in work rooms for handling radioactive materials. It is assumed that there are walls and ceilings that are too high for workers to reach over or to touch in accident-derived waste handling facilities because of their large scale; therefore the parts of the ceilings or walls, where workers are unlikely to touch during their regular work, have been excluded from objects of the contamination inspection.

(ii) It is acceptable that one or two portions which may be possibly contaminated the most are selected for each wall face or equipment surface for the inspection, and they shall be inspected once within a month.

c Inspection of contamination of items taken out of work rooms (Related to Article 32)

(i) Contamination inspection of vehicles shall be conducted in the area between double-entry door.

(ii) As for vehicles transporting removed soil or contaminated waste, it is recommended that contamination on their cargo beds and other contaminated areas be removed and the vehicles be inspected at unloading areas. If difficult, such vehicles shall return to a contamination inspection site and be inspected after measures to prevent dispersion are taken as specified in Article 37 which applies mutatis mutandis to Article 41-9.

(iii) The facilities for accident-derived waste disposal stated in paragraph 2 shall correspond to accident-derived waste handling facilities, crushing equipment, incinerators, storage facilities, landfill facilities, and belt conveyors and other transportation equipment installed in disposal sites. Also, the facilities for disposal stated in the same paragraph shall include the facilities for disposal other than disposal sites.

d Facilities for ventilation or drainage (Related to Article 34)

The ventilation facilities shall include ventilation systems as a whole, local exhaust ventilation systems, dust collectors (bag filters), and accessory pipes. Also, the drain facilities shall include waste liquid tanks, waste liquid treatment systems, and accessory pipes.

e Incinerators (Related to Article 35)

(i) "Incinerator" shall include the conveyer system, supply and exhaust ventilation systems, and accessory pipes that are integrated into the incinerator.

(ii) "No possible gas leakage" shall mean that the incinerator is required to have no possibilities of gas leakage from the parts other than its supply and exhaust ventilation systems.

f Containers (Related to Article 37)

(i) Considering that accident-derived waste is assumed to be solid and that the most of the radioisotopes included in the accident-derived waste are cesium-134 or cesium-137, Article 37, paragraph 4, shall not apply mutatis mutandis.

(ii) "Waste which is extremely difficult to put in containers" shall include large machinery and felled trees, dismantled structures, or debris larger than the container capacity.

(iii) "Effective measures to prevent spread of contamination" shall include transportation using a truck

whose cargo bed is sealed and transportation using a truck whose cargo bed is entirely covered with waterproof sheet.

g Protective equipment (Related to Article 38)

(i) The effective respiratory protective equipment stated in paragraph 1 shall include respiratory protective equipment with dust collection efficiencies corresponding to the following categories for works and radioactivity concentrations of accident-derived waste, or those with equivalent or better dust collection efficiencies.

	Radioactivity Concentration above 2,000,000 Bq/kg	Radioactivity Concentration from 500,000 Bq/kg to 2,000,000 Bq/kg	Radioactivity Concentration 500,000 Bq/kg or below
Work under high dust concentration environment (Dust concentration: higher than 10 mg/m^3)	Dust collection efficiency: ≥ 99.9% (full face)	Dust collection efficiency: ≥ 95%	Dust collection efficiency: ≥ 80%
Work other than that under high dust concentration environment (Dust concentration: 10 mg/m^3 or below)	Dust collection efficiency: ≥95%	Dust collection efficiency: ≥ 80%	

(ii) In the case of works for handling accident-derived waste with the radioactivity concentration exceeding 2,000,000 Bq/kg at the place where dust concentration is over 10 mg/m3, the use of a full face mask with a dust collection efficiency of 99.9 % or above which is expected to have a protection factor of 50 or above, even taking into account leakage, shall be required in order to control the internal exposure dose lower than 1mSv per year. .

(iii) In the case of works for handling accident-derived waste with the radioactivity concentration from 500,000 Bq/kg to 2,000,000 Bq/kg at the place where dust concentration is over 10 mg/m3, the use of half face dust masks with a dust collection efficiency of 95 % or above which is expected to have protection factor of 7 or above, even taking into account leakage, shall be required in order to control the internal exposure rate under 1mSv per year.

(iv) In the case of either works for handling accident-derived waste from 500,000 Bq/kg to 2,000,000 Bq/kg or works in the place where dust concentration is over 10 mg/m3, the use of dust masks with a dust collection efficiency of 80 % or above shall be required in order to ensure sufficient protection.

(v) The internal exposure dose during works not handling accident-derived waste with radioactivity concentration exceeding 500,000 Bq/kg at the place where dust concentration is 10 mg/m3 or below is about 0.15mSv per year at most. Therefore, the use of dust masks shall not be required. However, even if those works (handling of grass, trees and leaf mold) do not fall under the works defined in Articles 7 or 27 of the "Ordinance on Prevention of Hazards Due to Dust" (MHLW Ordinance No.18, 1979) to prevent pneumoconiosis, the use of non-woven fabric masks shall be required to prevent

ingestion of accident-derived waste.

(vi) RL or DL type filter shall be used for dust respirators when handling accident-derived liquid waste. A cartridge with dust proof function depending on the gas type shall be used when handling accident-derived gaseous waste.

(vii) The methods for determining radioactivity concentration shall include the method specified in Attachment 1 of the guidelines on decontamination works as well as the measurement method specified in Article 9 of the Standards for Working Environment Measurement (MHLW Notice No.46, 1976)

(viii) See below to determine whether work falls under the work under the high dust concentration environment.

(a) The works handling accident-derived waste not sealed in containers in a dry state and the works that require workers to enter inside the equipment for crushing, sorting, compression, concentration, and incineration of accident-derived waste shall be considered to fall under the works under high dust concentration environment because the dust concentration is expected to exceed 10mg/m3.

(b) Regardless of (a), when dust concentration is measured during work, judgment as to whether it corresponds to the work under high dust concentration environment shall be made based on the measurement results. See Attachment 2 of the guidelines on decontamination works for the method for dust concentration measurement.

h Protective clothing (Related to Article 39)

(i) The "effective protective clothing, gloves, or shoes" stated in paragraph 1 shall include protective equipment corresponding to the following categories for works and radioactivity concentrations of accident-derived waste, or be their equivalent or better.

	Radioactivity Concentration above 2,000,000 Bq/kg	Radioactivity Concentration from 500,000 Bq/kg to 2,000,000 Bq/kg	Radioactivity Concentration 500,000 Bq/kg or below
Work under high dust concentration environment (Dust concentration: higher than 10 mg/m^3)	Two-ply air-tight chemical protective suit worn over a long sleeve shirt, two-ply rubber gloves worn over cotton gloves, and rubber boots	Air-tight chemical protective suit worn over a long sleeve shirt, rubber gloves worn over cotton gloves, and rubber boots	A long sleeve shirt, cotton gloves, and rubber boots
Work other than that under high dust concentration environment (Dust concentration: 10 mg/m^3 or below)	Air-tight chemical protective suit worn over a long sleeve shirt, rubber gloves worn over cotton gloves, and rubber boots	A long sleeve shirt, rubber gloves worn over cotton gloves, and rubber boots	A long sleeve shirt, cotton gloves, and rubber boots

(ii) Considering that accident-derived waste is often wet, the use of shoes made of impermeable material shall be required in order to prevent contamination from penetrating the skin or clothing and to

support easy removal of the contamination in the event it occurs.

(iii) When contamination of the entire body is expected during maintenance and inspections inside the facility due to the accident-derived waste with radioactivity concentration exceeding 2,000,000 Bq/kg, wearing the positive-pressure type or airtight full body chemical protective clothing (e.g., tyvek with airline system) is recommended.

(iv) When handling liquid contaminated with radioactive materials discharged by the accident during, e.g. treatment of contaminated water, workers shall wear waterproof clothing with a hood over their protective clothing.

5. Exemption for special decontamination areas (Related to Article 41-10)

(1) Containers and accident-derived waste handling facilities (Related to Article 41-10, paragraph 1)

a The provision (use of containers) of Article 37 which applies mutatis mutandis to Article 41-9 aims to protect the bodies of workers handling removed soil from contamination and to prevent spread of the contamination. Though measures such as using remotely operated machines or controlling dust generation or dispersion shall be taken, the surface density of radioactive materials discharged by the accident shall be measured once within a month to ensure that the measures to prevent spread of the contamination are conducted properly. However, when the spread of contamination is observed, it is excluded from the requirement to use containers under the condition that the measures to remove the contamination are taken to reduce the contamination level to the average surface contamination level around landfill facilities or below (if the said surface contamination level does not exceed the limit designated in Appended Table 3 of the Ionizing Radiation Ordinance, below the said limit).

b The provision on accident-derived waste handling facilities of Article 41-5 which applies mutatis mutandis to Article 41-9 aims to prevent spread of the contamination outside of the accident-derived waste handling facilities. Though measures to control dust generation and dispersion shall be taken, the surface density of radioactive materials discharged by the accident shall be measured once within a month to ensure that the measures to prevent spread of the contamination are conducted properly. When the spread of contamination is observed, the requirements for accident-derived waste handling facilities have not been applied under the condition that the measures to remove contamination are taken to reduce the contamination level to the average surface contamination level around landfill facilities or below (if the said surface contamination level does not exceed the limit designated in Appended Table 3 of the Ionizing Radiation Ordinance, below the said limit).

c When removed soil is landfilled in accordance with the exemption stated in this paragraph, workers may enter the facility for a short period of time in order to troubleshoot failed machines, survey the contamination, and perform maintenance and inspections of the facility or equipment. In this case, however, such workers shall be required to interrupt the machine or equipment operation in advance to control dust generation and, at the time of entry, use the effective respiratory protective equipment and protective clothing.

d The "works operated by remotely operated machines" stated in item 1 include works by using specially

customized vehicles with higher sealing capability. In this case, however, based on provisions in Article 3-2 which is applied to landfill facilities, it is required that the sum of the effective dose from external radiation inside the said vehicles and the effective dose from radioactive materials in air does not exceed 1 mSv per week, that measures be taken to easily remove surface contamination, that surface contamination be inspected once within a month, and that contamination be removed if it exceeds 40 Bq/cm2.

e The "methods such as by maintaining removed soil in a wet state" stated in item 2 include the activities of spraying chemicals that are effective to control dispersion of dust.

f The "methods such as by working at a place as far away from the boundary of the landfill facility as possible" shall include setting wind shielding walls at the boundary of the landfill facility that help prevent dispersion of dust.

g "Measures to reduce the level of contamination to whichever is higher of the surface contamination limit designated in Appended Table 3 or the surface density around the said landfill facility" stated in item 4 shall include covering with material such as concrete and iron plates which have a shielding effect as well as removing contaminated soil.

(2) Exemption for provisions of application mutatis mutandis (Related to Article 41-10, paragraph 2)

The replacement of terms of exemption under this paragraph shall be indicated in Attachment 1.

a Limit of contamination (Related to Article 28, Article 31, paragraph 2 of Article 32, and paragraph 1 of Article 35)

(i) In the case of constructing the disposal sites in special decontamination areas, it is required that the spread of contamination is controlled below the level of that before constructing the disposal sites, because the outside of the sites was contaminated with radioactive materials discharged by the accident, and the soil contaminated with radioactive materials discharged by the accident has flowed in continuously from outside of the sites. Therefore, the exemption was established in regard to the limit for decontamination.

(ii) 40 Bq/cm2 corresponding to “the limit designated in Appended Table 3” may be considered to be equivalent to 13,000 cpm with a GM counter. If measurement of the contamination density is difficult due to the high dose equivalent rate in the surrounding area, the contamination inspection site shall be built at a place where dose equivalent rate is sufficiently low.

b Contamination inspection sites (Related to Article 31, paragraph 1)

In the case of constructing disposal sites in special decontamination areas, it is required that the spread of contamination is controlled below the level of that before constructing the disposal sites, because the outside of the sites was contaminated with radioactive materials discharged by the accident, and the soil contaminated with radioactive materials discharged by the accident flows into the site continuously from outside the site. Therefore, the exemption was established to allow contamination inspection only at the entrance of the disposal sites

6. Control of special works (Related to Chapter 4-2)

(1) Rules on procedures of the disposal of accident-derived waste (Related to Article 41-13)

a “Operation of each facility used in accident-derived waste disposal” shall include information necessary for each facility such as the timing and procedures of the operation, maintaining the proper operational state, and maintenance and inspections of the facility. Also, "each facility" shall include equipment for the accident-derived waste handling facility, storage facility, incinerator or landfill facility, crushing equipment, belt conveyors and other transportation equipment.

b “Adjustment of safety equipment and automatic alarming system” stated in item 2 of paragraph 1 shall include timing of adjustment and operation tests of safety equipment and automatic alarm systems "Safety equipment" shall include the interlocking mechanism of crushing equipment. "Automatic alarm equipment" shall include the systems that automatically notify of leaks in ventilation or drainage facilities and abnormal events in incinerators and other equipment.

c “Methods and procedures of works” stated in item 3 of paragraph 1shall include the procedures for entry into and exit from the controlled area, methods and procedures for handling unsealed accident-derived waste, methods and procedures for storage, incineration, or landfill of accident-derived waste such as sorting, crushing, compression, or concentration, methods and procedures for maintenance and inspections of equipment contaminated with radioactive materials discharged by the accident, methods for inspecting contamination on bodies and removing the contamination, performance and usage of protective equipment, measures to prevent exposure such as installing shields and introducing remote operation, exposure limit and methods for measuring exposure dose, and the methods for checking and recording the results of exposure dose measurement.

d “Actions for monitoring dose equivalent rate from external radiation and concentration of radioactive materials in the air” stated in paragraph 1, item 4 shall include the method, frequency, and implementation system for measuring the dose equivalent rate from external radiation and the concentration of radioactive materials in the air, and measures when these measurement results exceed the limit specified in the Ionizing Radiation Ordinance.

e “Actions related to inspection of the surfaces of ceilings, floors, walls and equipment, and removal of contamination” stated in paragraph 1, item 5 shall include methods, frequency, and implementation systems for inspecting contaminated surfaces of ceilings, floors, walls, and equipment, and methods for removing contamination when the inspection results exceed the limit specified in the Ionizing Radiation Ordinance.

f “Emergency actions in case of abnormal events” stated in paragraph 1, item 6 shall include emergency communication to the department relevant to the abnormal events, assignment of personnel for maintaining safety, instructions on how to use necessary equipment, and procedures for emergency actions.

(2) Submission of work notice for the disposal of accident-derived waste (Related to Article 41-14)

a Although the maintenance and inspections of equipment contaminated with accident-derived waste have a risk of significant exposure, it is difficult for the Labour Standards Inspection Office to supervise

or provide instructions timely due to circumstances of the work including using various kinds of equipment. Therefore, this Article requires that employers conducting the said works (the primary contractor only when there is one for the works) submit in advance a work notice to the director of the Labour Standards Inspection Office that has jurisdiction over the workplaces.

b "Inspection" stated in paragraph 1, item 1 shall include non-destructive testing and painting.

c The dismantling work stated in item1 of paragraph 1 shall not include the work removing uncontaminated parts.

7. Special education (Related to Chapter 6-2) and working environment monitoring (related to Chapter 7)

(1) Special education concerning disposal of accident-derived waste (Related to Article 52-8)

a This Article, paragraph 1 requires that special education shall be provided to workers engaged in disposal of accident-derived waste on the knowledge and practical training required to take appropriate actions as specified in the Ionizing Radiation Ordinance.

b Items in paragraph 2 specified by the Minister of Health, Labour and Welfare shall be based on the Rules on special education.

c Item 1 to item 5 of paragraph 1 are lectures and item 6 of the same paragraph is practical training. The scope and duration of these lectures and training shall be based on Articles 2 and 3 of the Rules on special education.

d Reference texts shall be issued for the subjects of lectures from item 1 to item 5.

e There is a risk of significant exposure resulting from handling large amounts of unsealed radiation sources, therefore, the education for “knowledge on the control of exposure dose” is required.

(2) Workplaces where working environment measurement shall be conducted and measurement of concentration of radioactive materials (related to Articles 53 and 55)

a Article 53, Item 2-2 mandates to conduct working environment measurements at accident-derived waste handling facilities. The working environment measurements are also mandated at the places which are designated as controlled areas, and also the same are mandated at the workplaces where the operations are conducted for the disposal of accident-derived waste under the provisions of item1 of the same Article.

b Article 55 stipulates that concentration of radioactive materials in the air shall be measured when the working environment measurement is conducted at accident-derived waste handling facilities the same as for the case of work rooms for handling radioactive substances.

8. Miscellaneous provisions (Related to Chapter 10)

(1) Adjustment of timing for medical examinations (Related to Article 61-4 and Article 6 of the Supplementary Provisions)

a The last medical examinations (limited to those performed within 6 months) which workers who regularly engaged in “decontamination works” had just before their transfer to the “radiation works” stated in the Ionizing Radiation Ordinance and based on the provisions in Article 20, paragraph1 of the

Ionizing Radiation Ordinance for Decontamination, shall be understood to be the medical examinations prior to the transfer to the said work based on provisions in Article 56, paragraph 1 of the Ionizing Radiation Ordinance. In this case, regular medical examinations based on the provisions in Article 56, paragraph 1 of the Ionizing Radiation Ordinance shall be performed within 6 months after the day the said medical examinations based on the provisions in Article 20, paragraph 1 of the Ionizing Radiation Ordinance for Decontamination were performed.

b The last medical examinations (limited to those performed within 6 months) which workers who regularly engaged in the "radiation works" stated in the Ionizing Radiation Ordinance just prior to their transfer to "decontamination works" and entry into the controlled areas pursuant to the provision in paragraph 1 of Article 56 of the Ionizing Radiation Ordinance shall be understood to be the medical examinations at the transfer to the said work pursuant to the provision in paragraph 1 of Article 20 of the Ionizing Radiation Ordinance for Decontamination. In this case, regular medical examinations pursuant to the provision in paragraph 1 of Article 20 of the Ionizing Radiation Ordinance for Decontamination shall be performed within 6 months after the day the said medical examinations based on the provisions in paragraph 1 of Article 56 of the Ionizing Radiation Ordinance were performed.

(2) Application of mutatis mutandis (Related to Article 62)

Concerning employers and their workers engaged in the works other than "radiation works" stated in the Ionizing Radiation Ordinance including employers conducting cleaning of storage facilities or landfill facilities for accident-derived waste (excluding employers stated in Article 2, paragraph1 of the Ionizing Radiation Ordinance for Decontamination), this Article shall define that the provisions specified by the Revised Ministerial Ordinance which shall require the same measures to be taken for the said employers and their workers shall apply mutatis mutandis. Also, this Article shall demonstrate that employers and their workers engaged in the works stated in Article 2 paragraphs 7 or 8 of the Ionizing Radiation Ordinance for Decontamination at workplaces where radiation works are carried out as stated in the Ionizing Radiation Ordinance, other than disposal sites, shall be excluded from the subject of this Article, and shall apply the Ionizing Radiation Ordinance for Decontamination.

9. Forms

The work notice concerning disposal of accident-derived waste (Form 1) shall require the minimum necessary items mentioned, and shall not preclude the use of different forms.

10. Supplementary Provisions

(1) Date of enforcement (Related to Article 1 of the Supplementary Provisions)

a The Revised Ministerial Ordinance shall come into effect from 1 July 2013. However, the provisions related to Adjustment of timing for medical examinations stated in the above 8 (1) shall come into effect on the day of promulgation.

b Rules on special education shall apply from 1 July 2013.

(2) Transitional measures (Related to Articles 2 and 3 of the Supplementary Provisions)

a Work rooms dedicated for works handling unsealed accident-derived waste currently operated on 1 July 2013 or corridors dedicated for workers engaged in the said works, which meet the provisions of Article 23, the Ionizing Radiation Ordinance before the revision by the Revised Ministerial Ordinance shall be considered to meet the provisions of Article 41-5 of the Ionizing Radiation Ordinance after the revision by the Revised Ministerial Ordinance.

b Penalties shall be applied according to the previous provisions to persons who violated the provisions of the Ionizing Radiation Ordinance before the revision by the Revised Ministerial Ordinance.

(3) Partial revision of the Ordinance on Industrial Safety and Health (Related to Article 4 of the Supplementary Provisions)

According to the revision of Article 36 of Ordinance on Industrial Safety and Health (MHLW Ordinance No. 32, 1972), disposal of accident-derived waste was added to the works requiring special education stated in Article 59, paragraph 3 of the Industrial Safety and Health Act (Act No. 57, 1972).

(4) Partial revision of Enforcement Ordinance of the Working Environment Measurement Law (Related to Article 5 of the Supplementary Provisions)

According to the revision of Article 1 of Enforcement Ordinance of the Working Environment Measurement Law (MHLW Ordinance No. 20, 1975), accident-derived waste handling facilities have been added to the workplaces where working environment measurement experts shall conduct working environment measurement.

(5) Partial revision of the Ionizing Radiation Ordinance for Decontamination (Related to Article 6 of the Supplementary Provisions)

In addition to the above 1 (1) and 8 (1), it is explicitly stated that only the primary contractor, when there is one, is mandated to submit the work notice stated in Article 10 of the Ionizing Radiation Ordinance for Decontamination.

Section 3. Supporting Provisions and Penalties

The Ionizing Radiation Ordinance, Ordinance on Industrial Safety and Health, Enforcement Ordinance of the Working Environment Measurement Law, and Ionizing Radiation Ordinance for Decontamination are based on Articles 22 and 27, etc. of the Industrial Safety and Health Act and Article 2, etc. of the Working Environment Measurement Act (Act No. 28, 1975) and have penalties. Also, supporting provisions for newly-created provisions stated in the Ionizing Radiation Ordinance are indicated in Attachment 2.

Attachment1

Table for Replacement of Terms of Ordinance on Prevention of Ionizing Radiation Hazards (Ministry of Labour Ordinance No. 41 of 1972)

（Related to the Revision by Ministerial Ordinance to Revise Part of the Ordinance on Prevention of Ionizing Radiation Hazards (Ministry of Health, Labour and Welfare Ordinance No. 57, 2013)

Before Replacement of Terms and Before Application of Exemption	After Replacement under the Provisions of Article 41-9 (Underlined Parts)	Exemption under the Provisions of Article 41-10, Paragraph 2 (Bold-faced Parts)
Article 25. The employer shall control the three-month average of the weekly average concentration in workplaces other than work rooms for handling radioactive materials and/or the inside of quarries for mining nuclear raw materials to one-tenth or less of the limit designated by the Minister of Health, Labour and Welfare under paragraph 3 of Article 3.	Article 25. The employer shall control the three-month average of the weekly average concentration in workplaces other than accident-derived waste handling facilities, etc. to one-tenth or less of the limit designated by the Minister of Health, Labour and Welfare under paragraph 3 of Article 3.	* No exemption
(Equipment to Prevent Dispersion) Article 26. When a case may occur in which dispersion is made of droplets or dust of radioactive materials resulting from handling of the said radioactive materials, the employer shall install or provide equipment facilities with boards, curtains, etc., thereby to prevent the said droplets or dust of radioactive materials from adhering to the bodies of workers, or clothes, footwear, work clothes, personal protective equipment, etc., which the said workers wear (hereafter referred to as "equipment worn").	(Equipments to Prevent Dispersion) Article 26. When a case may occur in which dispersion is made of droplets or dust of accident-derived waste resulting from handling of the said accident-derived waste, the employer shall provide personal protective equipment for the workers engaged in the said works under the provisions of Article 39, paragraph 1 which applies mutatis mutandis to Article 41-9. *The proviso shall not apply mutatis mutandis.	* No exemption
(Tools to Handle Radioactive Materials) Article 27. The employer shall post written notices which state the exclusive use of forceps, tweezers, etc., in handling of radioactive materials, and attach the notices to the said forceps, tweezers, etc. In addition, the employer shall not allow workers concerned to use these tools for other purposes. 2. Omitted	(Tools to Handle Radioactive Materials) Article 27. The employer shall post written notices which state the exclusive use of shovels, etc. in handling of radioactive materials, and attach the notices to the said shovels, etc. In addition, the employer shall not allow workers concerned to use these tools for other purposes. 2. Omitted	* No exemption
(Measures Taken When Radioactive Materials Spill, etc.) Article 28. When the workplace is contaminated with radioactive materials, either in liquid or powder forms, by means of an accident such as spilling, the employer shall immediately take measures for preventing the spread of the contamination, indicate the area where contamination is likely by putting up warning notices and remove the contaminant until the degree of the contamination is reduced **to the limit or less than the limit listed in the Attached Table, providing that the level to which the contamination is to be reduced may be one tenth of the limit listed in the said table where the contamination has occurred in the place other than work rooms for**	(Measures Taken When Radioactive Materials Spill, etc.) Article 28. When the workplace is contaminated with accident-derived waste, either in liquid or powder forms, by means of an accident such as spilling, the employer shall immediately take measures for preventing the spread of the contamination, indicate the area where contamination is likely by putting up warning notices and remove the contaminant until the degree of the contamination is reduced **to the limit or less than the limit listed in the Attached Table, providing that the level to which the contamination is to be reduced may be one tenth of the limit listed in the said table where the contamination has occurred in the place other than accident-derived waste handling facilities.**	(Measures Taken When Radioactive Materials Spill, etc.) Article 28. When the workplace is contaminated with accident-derived waste, either in liquid or powder forms, by means of an accident such as spilling, the employer shall immediately take measures for preventing the spread of the contamination, indicate the area where contamination is likely by putting up warning notices, and **in the case of indoors,** remove the contaminant until the degree of the contamination is reduced **to the limit or less than the limit listed in the Attached Table, or in the case of outdoors, reduced to less than whichever is the higher of the limit listed in the said table and the surrounding surface density of the radioactive material discharged**

handling radioactive materials.		**by the accident.**
(Inspection of Contamination in Work Rooms for Handling Radioactive Materials) Article 29. The employer shall inspect the ceiling, floor, walls and facilities, etc. of work rooms for handling radioactive materials at least monthly, and, if said objects are found to be contaminated to the levels exceeding the limits listed in the Attached Table, the employer shall remove the contaminant until the levels of the contamination of the said objects are reduced to the limits or below as listed in the annexed table. 2. Omitted	(Inspection of Contamination in Work Rooms for Handling Radioactive Materials) Article 29. The employer shall inspect the ceiling, floor, walls and facilities, etc. for handling accident-derived waste (limited to the parts where the workers might touch at least monthly, and, if said objects are found to be contaminated to the levels exceeding the limits listed in the Attached Table, the employer shall remove the contaminant until the levels of the contamination of the said objects are reduced to the limits or below as listed in the annexed table. 2. Omitted	* No exemption
(Contamination Inspection of Workers Leaving Work Rooms) Article 31. The employer shall provide a contamination inspection room at **the exit** of the controlled area (limited to those areas where contamination of workers' bodies and equipment may exceed **one tenth of the limits listed in the Attached Table.** The same is applied in this and the next Articles) in order to inspect the contamination of workers' bodies and equipment worn or carried by the individual workers who are to leave the said controlled area. 2. When the levels of the contamination of the workers' bodies and equipment worn or carried by the individual workers are found to exceed **one tenth of the limits listed in the Attached Table** through the inspection, the employer shall not permit the contaminated workers to leave the controlled area unless the workers go through the following contamination removing requirements: (1) Wash the body until the level of contamination is reduced to less than **one tenth of the limit designated in the Attached Table**, if the body is contaminated. (2) Omitted 3. Omitted	*No replacement of terms	(Contamination Inspection of Workers Leaving Work Rooms or Workplaces) Article 31. The employer shall provide a contamination inspection room at **the exit** of the controlled area (limited to those areas where contamination of workers' bodies and equipment may exceed **the limits listed in the Attached Table**. The same is applied in this and the next Articles) **or workplaces** in order to inspect the contamination of workers' bodies and equipment worn or carried by the individual workers who are to leave the said controlled area. 2. When the levels of the contamination of the workers' bodies and equipment worn or carried by the individual workers are found to exceed **the limits listed in the Attached Table** through the inspection, the employer shall not permit the contaminated workers to leave the controlled area unless the workers go through the following contamination removing requirements: (1) Wash the body until the level of contamination is reduced to less than **the limit designated in the Attached Table**, if the body is contaminated. (2) Omitted 3. Omitted
(Inspection of Contamination of Items Taken from Work Rooms) Article 32. In terms of items which the workers take with them from the controlled area, the employer shall inspect the status of contamination of the said items for radioactive materials	(Inspection of Contamination of Items Taken from Work Rooms) Article 32. In terms of items which the workers take with them from the controlled area, the employer shall inspect the status of contamination of the said items for radioactive materials	(Inspection of Contamination of Items Taken from Work Rooms) Article 32. In terms of items which the workers take with them out of the controlled area, the employer shall inspect the status of contamination of the said items for radioactive materials

at a contamination inspection room as described in paragraph 1 of the preceding Article. 2. Both the employer and the workers shall not be allowed to take out the items found to be contaminated respectively to the levels exceeding **one tenth of the limit designated in the Attached Table** through the inspection conforming to the provision of the preceding paragraph except where such contaminated items are to be carried in the containers as provided for by the text of paragraph 1 of Article 37 or carried with the measures for the provision of the same paragraph to the decontamination facilities, contaminated objects storage facilities, contaminated objects disposal facilities or other controlled areas.	at a contamination inspection room as described in paragraph 1 of the preceding Article except where the items are to be carried under the provisions of Article 41-7, paragraph 1. 2. Both the employer and the workers shall not be allowed to take out the items found to be contaminated respectively to the levels exceeding **one tenth of the limit designated in the Attached Table** through the inspection conforming to the provision of the preceding paragraph except where the items are to be carried under the provisions of Article 41-7, paragraph 1 or where such contaminated items are to be carried in the containers as provided for by the text of paragraph 1 of Article 37, which applies mutatis mutandis to Article 41-9, or to assume measures for the provision of the same paragraph to the decontamination facilities, or facilities to process or dispose of accident-derived waste.	at a contamination inspection room as described in paragraph 1 of the preceding Article except where the items are to be carried under the provisions of Article 41-7, paragraph 1. 2. Both the employer and its workers shall not be allowed to take out the items found to be contaminated respectively to the levels exceeding **the limit designated in the Attached Table** through the inspection conforming to the provision of the preceding paragraph except where such contaminated items are to be carried in the containers as provided for by the text of paragraph 1 of Article 37, which applies mutatis mutandis to Article 41-9, or to assume measures for the provision of the same paragraph to the decontamination facilities, or facilities to process or dispose of accident-derived waste.
（Storage Facilities） Article 33. The employer shall store the contaminated objects in storage facilities separated from outside surroundings, and also which are provided with a locking mechanism and other closing devices or tools at the portions which lead to the outside of the said facilities such as doors, covers, etc. 2.3. Omitted	（Storage Facilities） Article 33. The employer shall store the accident-derived waste in storage facilities separated from outside surroundings, and also which are provided with a locking mechanism and other closing devices or tools at the portions which lead to the outside of the said facilities such as doors, covers, etc. 2.3. Omitted	* No exemption
（Ventilation and effluent facilities） Article 34. When the employer draws exhausted air or fluids out of work rooms for handling radioactive materials, stores the said exhausted air or fluid, or when the employer purifies the said exhausted air or fluid, the said exhausted air or fluid shall be drawn, stored or purified in the facilities with a structure which has no fear of leakage of air or fluid from the said facilities, also the facilities are made of materials which are extremely resistant to corrosion and impermeable by the said discharged fluid. 2. Omitted	（Ventilation and effluent facilities） Article 34. When the employer draws exhausted air or fluids out of accident-derived waste handling facilities, crushing facilities or belt conveyors and other transportation equipment such as conveyers, stores the said exhausted air or fluid, or when the employer purifies the said exhausted air or fluid, the said exhausted air or fluid shall be drawn, stored or purified in the facilities with a structure which has no fear of leakage of air or fluid from the said facilities, also the facilities are made of materials which are extremely resistant to corrosion and impermeable by the said discharged fluid. 2. Omitted	* No exemption
（Incinerators） Article 35. When the employer incinerates radioactive materials or objects found to be contaminated to the levels exceeding **one tenth of the limit designated in the Attached Table** (hereafter referred to as "contaminated	（Incinerators） Article 35. When the employer incinerates accident-derived waste or objects found to be contaminated to the levels exceeding **one tenth of the limit designated in the Attached Table** (hereafter referred to as "contaminated	（Incinerators） Article 35. When the employer incinerates accident-derived waste or objects found to be contaminated to the levels exceeding **the limit designated in the Attached Table** (hereafter referred to as "contaminated

<table>
<tr>
<td>objects”), the incinerator with a structure shall be used which has no possibility that leakage of air and dispersion of ash may take place, respectively, from the said incinerator.
2. Omitted</td>
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2. Omitted</td>
<td>objects”), the incinerator with a structure shall be used which has no possibility that leakage of air and dispersion of ash may take place, respectively, from the said incinerator.
2. Omitted</td>
</tr>
<tr>
<td>（Containers）
Article 37. When the employer stores or keeps radioactive materials, or carries radioactive materials or contaminated objects, stores these materials for disposal, or temporarily stores these materials for disposal, containers shall be used. This does not apply to a case in which it is extremely difficult to store these materials in the said containers, and when effective measures to shield from external radiation are taken, to prevent spreading of contamination by radioactive materials, or to a case when radioactive materials are carried within work rooms for handling radioactive materials.

2. When using the containers designated in the preceding paragraph for the purposes listed in the left column of the following table, the employer shall make sure that each of such containers has the structure correspondingly listed in the right column of the same table according to the classified uses.

<table>
<tr><th>Usage</th><th>Structure</th></tr>
<tr><td>To contain radioactive materials or contaminated objects that may cause air pollution</td><td>Omitted</td></tr>
<tr><td>To contain liquid radioactive materials or wet objects contaminated by such radioactive materials</td><td>Omitted</td></tr>
<tr><td>To contain radioactive materials or contaminated objects in order to transport them to outside the</td><td>Omitted</td></tr>
</table>
</td>
<td>（Containers）
Article 37. When the employer stores or keeps accident-derived waste, or carries accident-derived waste or contaminated objects, temporarily stores these materials for disposal, or buries these materials, containers shall be used. This does not apply to a case in which it is extremely difficult to store these materials in the said containers, and when effective measures to shield from external radiation are taken, to prevent spreading of contamination by radioactive materials, or to a case when these materials are handled within accident-derived waste handling facilities, and to a case when these materials are carried under the provisions of Article 41-7, paragraph 1.

2. When using the containers designated in the preceding paragraph for the purposes listed in the left column of the following table, the employer shall make sure that each of such containers has the structure correspondingly listed in the right column of the same table according to the classified uses.

<table>
<tr><th>Usage</th><th>Structure</th></tr>
<tr><td>To contain accident-derived waste or contaminated objects that may cause air pollution</td><td>Omitted</td></tr>
<tr><td>To contain liquid accident-derived waste or wet objects contaminated by such radioactive materials</td><td>Omitted</td></tr>
<tr><td>To contain accident-derived waste or contaminated objects in order to transport them</td><td>Omitted</td></tr>
</table>
</td>
<td>*Under the provisions of Article 41-10, paragraph 1, provisions of the Article 37 shall not apply when complying with the requirements in the said paragraph.</td>
</tr>
</table>

controlled area 3. The employer shall put notices on the containers as described in paragraph 1 which say that the containers contain radioactive materials or contaminated objects.	to outside the controlled area 3. The employer shall put notices on the containers as described in paragraph 1 which say that the containers contain accident-derived waste or contaminated objects. *Paragraph 4 shall not apply mutatis mutandis.	
（Work Clothes） Article 40. When the employer has workers engage in the work in the work rooms for handling radioactive substances, work clothes shall be provided to be used exclusively for the work in the said rooms, and workers shall use the said work clothes when they engage in the said work.	（Work Clothes） Article 40. When the employer has workers engage in the work in the accident-derived waste handling facilities, work clothes shall be provided to be used exclusively for the work in the said rooms, and workers shall use the said work clothes when they engage in the said work.	* No exemption
（Prohibition of Smoking, etc.） Article 41-2. The employer shall prohibit workers from smoking, drinking or eating in work rooms for handling radioactive materials or any other work room where there is a possibility that workers may inhale or ingest a radioactive substance and the employer shall put up warning notices to such effect in easily visible locations in the work rooms concerned. 2. Omitted	（Prohibition of Smoking, etc.） Article 41-2. The employer shall prohibit workers from smoking, drinking or eating in accident-derived waste handling facilities or any other work room where there is a possibility that workers may inhale or ingest accident-derived waste and the employer shall put up warning notices to such effect in easily visible locations in the work rooms concerned. 2. Omitted	* No exemption

Attachment2

Supporting Provisions for the Ordinance on Prevention of Ionizing Radiation Hazard at Works to Decontaminate Soil and Wastes Contaminated by Radioactive Materials Resulting from the Great East Japan Earthquake and Related Works

Ionizing Radiation Ordinance		Industrial Safety and Health Act		
Articles	Paragraphs	Supporting Provisions	Penalties（Sentences）	Penalties（Provisions）
Article 41-3		Article 27, paragraph 1 (Related to Article 22, paragraph 2)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 41-4		Article, paragraph 1 (Related to Article 22, paragraph 2)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 41-5		Article 27, paragraph 1 (Related to Article 22, paragraph 2)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 41-6		Article 27, paragraph 1 (Related to Article 22, paragraph 2)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 41-7		Article 27, paragraph 1 (Related to Article 22, paragraph 2)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 41-8		Article 27, paragraph 1 (Related to Article 22, paragraph 2)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 41-9		Article 27, paragraph 1 (Related to Article 22, paragraphs 2 & 4, and Article 26)	Imprisonment not exceeding 6 months or a fine of 500,000 yen (Fine not exceeding 500,000 yen concerning Article 26）	Article 119, paragraph 1 (Article 120, paragraph 1 regarding Article 26)
Article 41-10	Paragraph 1	Article 27, paragraph 1 (Related to Article 22, paragraphs 2 & 4)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
	Paragraph 2	Article 27, paragraph 1 (Related to Article 22, paragraphs 2 & 4, and Article 26)	Imprisonment not exceeding 6 months or a fine of 500,000 yen (Fine not exceeding 500,000 yen regarding Article 26）	Article 119, paragraph 1 (Article 120, paragraph 1 regarding Article 26)
Article 41-13		Article 27, paragraph 1 (Related to Article 22, paragraph 2)	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 41-14		Article 100, paragraph 1	Fine not exceeding 500,000 yen	Article 120, paragraph 5
Article 52-8		Article 59, paragraph 3	Imprisonment not exceeding 6 months or a fine of 500,000 yen	Article 119, paragraph 1
Article 61-4		Article 66, paragraph 2	Fine not exceeding 500,000 yen	Article 120, paragraph 1

Ionizing Radiation Ordinance for Decontamination		Industrial Safety and Health Act		
Articles	Paragraphs	Supporting Provisions	Penalties（Sentences）	Penalties（Provisions）
Article 30		Article 66, paragraph 2	Fine not exceeding 500,000 yen	Article 120, paragraph 1