

# Enforcement Decree of the Act on Protective Action Guidelines against Radiation in the Natural Environment

Enacted by Presidential Decree No. 23991, Jul. 24, 2012;

(Entered into force Jul. 26, 2012)

Partially amended by Presidential Decree No. 27206, May. 31. 2016;

(Entered into force May. 31. 2016, Jun. 2. 2016)

Amended by Presidential Decree No. 27970, as amended by other Act, Mar. 29. 2017;

(Entered into force Mar. 30. 2017)

Amended by Presidential Decree No. 27972, as amended by other Act, Mar. 29. 2017;

(Entered into force Mar. 30. 2017)

## Article 1 (Purpose)

The purpose of this Decree is to provide for those matters delegated by the Act on Protective Action Guidelines against Radiation in the Natural Environment and those necessary for the enforcement thereof.

## Article 2 (Matters to be Included in Comprehensive Plans)

“Necessary matters prescribed by Presidential Decree” in Article 5 (2) 8 of the Act on Protective Action Guidelines against Radiation in the Natural Environment (hereinafter referred to as the “Act”) means the following matters:

1. Matters concerning the monitoring of radiation in the natural environment, such as the installation, operation, etc. of radiation and radioactivity monitors under Article 19 (1) of the Act (hereinafter referred to as “monitor”);
2. Matters concerning the designation and operation of professional organizations for radiation in the natural environment under Article 27 of the Act (hereinafter referred to as “professional organization”);
3. Matters concerning the analysis and assessment of the impact of radiation in the natural environment on the human body.

## Article 3 (Formulation, etc. of Annual Implementation Plans)

(1) In order to formulate an annual implementation plan (hereinafter referred to as “implementation plan”) for comprehensive plans for protection from radiation in the natural environment under Article 5 (1) of the Act (hereinafter referred to as “comprehensive plan”) in accordance with Article 6 (1) of the Act, the Nuclear

Safety and Security Commission (hereinafter referred to as the “Nuclear Safety and Security Commission”) under Article 3 of the Act on Establishment and Operation of the Nuclear Safety and Security Commission shall determine guidelines for formulating the implementation plans for the following year by November 30 of each year and notify the head of the relevant central administrative agency thereof.

(2) A head of a relevant central administrative agency notified of the guidelines for formulating implementation plans pursuant to paragraph (1) shall in relation to business under his/her jurisdiction prepare a performance review for the preceding year and action plans for the relevant year and submit them to the Nuclear Safety and Security Commission by January 31 of each year.

(3) The Nuclear Safety and Security Commission shall formulate an implementation plan in complete consideration of the aggregated performance review and action plans submitted by the head of the relevant central administrative agency pursuant to paragraph (2) and notify the head of the relevant central administrative agency thereof by March 31 of each year.

(4) Implementation plans shall include the following:

1. Matters concerning the performance review for the preceding year and detailed action plans for each area over the relevant year in order to implement a comprehensive plan;
2. Matters concerning the formulation and implementation of research and development plans necessary for the implementation of a comprehensive plan;
3. Other matters necessary for protective action guidelines against radiation in the natural environment.

(5) Where necessary for formulating implementation plans, the Nuclear Safety and Security Commission may request the head of the relevant central administrative agency to submit necessary data. In such cases, the head of the relevant central administrative agency so requested shall comply therewith, unless extenuating circumstances exist.

#### **Article 4** (Scope, etc. of Persons Required to Register)

(1) The scope of those persons required to register the type, amount, etc. of raw materials or residues to the Nuclear Safety and Security Commission in accordance with Article 9 (1) of the Act shall be as follows:

1. Anyone who handles raw materials or residues containing uranium 235 (including nuclides within their decay chain; the same shall apply to uranium 238 and thorium 232), uranium 238 or thorium 232 whose activity concentration exceeds 1 becquerel per gram, with the amount of radioactivity calculated from the total

amount of relevant raw materials or residues he/she handles each year exceeding 1,000 kilo becquerel for each nuclide;

2. Anyone who handles raw materials or residues containing potassium 40 whose activity concentration exceeds 10 becquerel per gram, with the amount of radioactivity calculated from the total amount of the relevant raw materials or residues he/she handles each year exceeding 10,000 kilo becquerel.

(2) Those persons required to register under paragraph (1) shall register the following matters:

1. Type of raw materials or residues;
2. The total amount of raw materials or residues handled each year and the amount of radioactivity therein;
3. Activity concentration of raw materials or residues.

#### **Article 5 (Treatment, Disposal or Recycling of Residues)**

Anyone who has registered pursuant to Article 9 (1) of the Act (hereinafter referred to as “handler”) shall meet the following requirements when they treat, dispose of or recycle residues pursuant to Article 13 (2) of the Act:

1. Establish reasonable methods and procedures for lowering radiation exposure under subparagraph 19 of Article 2 of the Nuclear Safety Act (hereinafter referred to as “radiation exposure”) among those engaging in the business of the treatment, disposal or recycling of residues;
2. In the event of the disposal or recycling of residues, do so in a manner that lowers the activity concentration contained within the relevant residues;
3. To dispose of residues by means of landfill, etc. in order to prevent recycling;
4. To recycle residues into products in a manner that conforms to the safety standards for products (hereinafter referred to as “safety standards”) under Article 15 of the Act.

#### **Article 6 (Safety Measures, etc. for Workers Involved)**

Handlers and those who engage in the manufacture or export or import of products under Article 15 (hereinafter referred to as “manufacturer”) shall take the following measures to ensure that the radiation exposure of people engaged in the handling and managing of raw materials or residues pursuant to Article 14 (2) of the Act does not exceed the dose limit applied to people engaged in radiation-related work (hereinafter referred to as “dose limit”) in accordance with subparagraph 4 of Article 2 of the Enforcement Decree of the Nuclear

Safety Act and attached Table 1:

1. Annual measurement and assessment of activity concentration in workplaces;
2. Quarterly measurement and assessment of radiation dose rates (referring to rates of change in radiation dose over time) in workplaces;
3. Investigation and analysis of annual radiation exposure of workers involved;
4. Measures such as using devices or apparatuses to reduce radiation exposure of workers involved;
5. Provision of information on radiation exposure of workers involved resulting from the handling of raw materials or residues.

**Article 7** (Measures, etc. against Nonconforming Products)

(1) When a manufacturer becomes aware that his/her product fails to meet safety standards, he/she shall formulate a plan to take measures under Article 16 (1) of the Act (hereafter referred to as “corrective plan” in this Article) within five days from the date he/she has obtained such knowledge and report it to the Nuclear Safety and Security Commission.

(2) A corrective plan shall include the following:

1. Name of the product that fails to meet safety standards, date of manufacture or import, date of sale, buyers and the current status of sale;
2. Timing and circumstances of becoming aware that the product fails to meet safety standards, and details and causes of said failure;
3. Methods, procedures and period for taking measures such as the supplementation, exchange, withdrawal or discarding of products that fail to meet safety standards.

(3) If a corrective plan reported pursuant to paragraph (1) is deemed insufficient, the Nuclear Safety and Security Commission may issue an order to supplement said plan.

(4) A manufacturer shall take measures such as supplementation, exchange, withdrawal or disposal in accordance with the corrective plan.

**Article 8** (Disposal of Defective Products)

(1) When issuing an order for the disclosure of facts and the undertaking of relevant measures under Article 16 (1) of the Act in accordance with Article 17 (1) of the Act, the Nuclear Safety and Security Commission shall grant a manufacturer the opportunity to state within three days his/her opinion, either verbally or in writing. In such cases, if he/she fails to state his/her opinion prior to the deadline, it shall be deemed that he/she bears no particular opinion.

(2) A manufacturer issued with an order to take relevant measures pursuant to Article 17 (1) of the Act shall formulate and implement a plan for relevant measures. In such cases, Article 7 shall apply mutatis mutandis to the formulation and implementation of such plans.

(3) The Nuclear Safety and Security Commission shall determine a period for taking measures of up to three months, in consideration of the quantity, etc. of products that fail to meet safety standards: Provided, That the period may be extended once by up to three months upon the request of a manufacturer where he/she cannot complete relevant measures within the period for taking measures due to natural disasters or for other inevitable grounds.

**Article 9** (Scope of Air Transportation Business Operators, etc.)

(1) “An air transportation business operator prescribed by Presidential Decree” under Article 18 (1) of the Act means persons who run an international air transportation business pursuant to Article 112 (1) of the Aviation Act.

(2) Flight crew and cabin crew under Article 18 (2) of the Act (hereinafter referred to as “crew”) shall mean crew aboard international flights operated by an air transportation business operator under Article (1) (hereinafter referred to as “air transportation business operator”).

**Article 10** (Safety Measures, etc. for Crew)

An air transportation business operator shall take the following measures to ensure that the radiation exposure of crew does not exceed the dose limit in accordance with Article 18 (4) of the Act:

1. Investigation, analysis and recording of annual radiation exposure of crew resulting from cosmic radiation, calculated based upon the following:
  - (a) Air routes, flight altitude, and latitude and longitude;
  - (b) Flight time for crew;
  - (c) Impact from solar activity;
  - (d) Other matters necessary for the assessment of radiation exposure;
2. Measures necessary to lower radiation exposure of crew, such as altering air routes and adjusting flight frequencies;
3. Provision of information on radiation exposure of crew resulting from cosmic radiation.

**Article 11** (Places Subject to Installation of Monitors)

(1) Airports and ports subject to the installation and operation of monitors pursuant to Article 19 (1) of the Act shall be as follows:

1. Airports having international air routes under Article 111-2 (1) of the Aviation Act;
2. International trade ports under Article 3 (1) 1 of the Harbor Act.

(2) A person who sells or recycles recycled scrap metal and is required to install and operate monitors pursuant to Article 20 (1) of the Act shall mean anyone who operates electric melting facilities with a unit capacity of at least 30 tons to recycle recycled scrap metal.

**Article 12** (Installation and Operation of Monitors)

(1) When a monitor is installed pursuant to Article 19 (1) or 20 (1) of the Act, it shall be installed in a location suitable for effective monitoring in consideration of routes, etc. of the following monitoring targets:

1. Cargo exported or imported at airports or harbors;
2. Recycled scrap metal entering or exiting places of business handling recycled scrap metal.

(2) Monitors installed pursuant to Article 19 (1) or 20 (1) of the Act shall be capable of verifying radiation levels and radioactive nuclides: Provided, That radioactive nuclides may instead be verified by means of a separate device.

(3) Persons who install and operate monitors pursuant to Article 19 (1) or 20 (1) of the Act shall verify radiation levels and radioactive nuclides of target cargo or recycled scrap metal by means of monitors and, where suspicious materials under Article 21 (1) of the Act (referring to materials whose activity concentration level exceeds or is suspected to exceed limits determined and published by the Nuclear Safety and Security Commission; hereinafter the same shall apply), shall classify, isolate and temporarily store the relevant suspicious materials and shall conduct periodic inspection and maintenance so as to sustain the performance of the monitors.

(4) The Nuclear Safety and Security Commission may commission professional organizations to assume such professional and technical business as the selection of locations for monitor installation and the periodic inspection and maintenance of monitors, among business concerning the installation and operation of monitors under Article 19 (1) of the Act.

**Article 13** (Entrusted operation of monitoring appliances)

(1) Pursuant to Article 19 (3) of the Act, the Commission shall entrust airport operators, air transportation service providers, and harbor facility operators with the operation of monitoring appliances based on the following classification:

1. Operation of monitoring appliances installed at airports under Article 11 (1) 1:  
The relevant airport operators and air transportation service providers.
2. Operation of monitoring appliances installed at trading ports under Article 11 (1) 2: The relevant harbor facility operators.

(2) The scope of the duties pertaining to the operation of monitoring appliances under paragraph 1 shall be as follows:

1. Checking of radiation levels and radioactive nuclides of cargoes subject to surveillance using monitoring appliances.
2. Classification, isolation and temporary storage of significant materials detected by monitoring appliances.
3. Routine inspections, including checks conducted to determine whether the monitoring appliances are functioning normally.

**Article 14** (Formulation and Implementation of Plans to Investigate the Actual State of Safety Management of Radiation in the Natural Environment)

Investigation plans under Article 23 (1) of the Act shall include the following:

1. Scope and details of those matters subject to investigation;
2. Period, method and procedures of investigation;
3. Matters for which cooperation will be requested from those institutions subject to investigation and relevant central administrative agencies.

**Article 14-2** (Education on the operation of monitoring appliances)

(1) The education conducted by the Commission pursuant to Article 26-2 of the Act shall include the following:

1. Matters concerning routine inspection, including checking the normal operation of monitoring appliances;
2. Matters concerning actions to be taken against failure or breakage of monitoring appliances;
3. Matters concerning checking the radiation levels and radioactive nuclides of significant materials;
4. Matters concerning actions pertaining to the classification, isolation and

temporary storage of significant materials; and

5. Other actions or matters required for the operation of monitoring appliances.

(2) The Commission may provide education under Article 26-2 of the Act using the following methods:

1. Collective education.
2. On-site education at spots where monitoring appliances are installed and operated.
3. Hands-on education on the use of facilities and equipment

(3) The Commission may develop and operate education programs including the education contents provided under paragraph 1 in order to implement education under Article 26-2 (1) of the Act.

#### **Article 15** (Criteria, etc. to Designate Professional Organizations)

Those who intend to be designated as professional organizations pursuant to Article 27 (2) of the Act shall be equipped with the following facilities, equipment and human resources:

1. Facilities: Laboratory facilities required to analyze radioactivity and measure and assess radiation dose;
2. Equipment: Equipment necessary to analyze radioactivity, measure and assess radiation dose, and measure and assess individual radiation exposure;
3. Human resources: The following human resources:
  - a. Two or more persons who have engaged in the field of radioactivity analysis for a minimum of three years or who have obtained a master's or higher degree in the relevant field;
  - b. Two or more persons who have engaged in the field of measurement and assessment of radiation dose for a minimum of three years or who have obtained a master's or higher degree in the relevant field.

#### **Article 16** (Entrustment, etc. of Business)

(1) The Nuclear Safety and Security Commission shall entrust the following business to professional organizations pursuant to Article 28 of the Act:

1. Receipt of registration under Article 9 (1) of the Act and receipt of reports on modifying registered matters under paragraph (2) of the same Article;
2. Receipt of reports on the following matters:
  - a. Reports on succession to the status of handler under Article 10 (3) of the Act;
  - b. Reports on export or import of raw materials or residues under Article



- 11 (1) of the Act;
- c. Reports on treatment, disposal or recycling of residues under Article 13 (1) of the Act;
3. Receipt of reports on the following matters:
    - a. Reports on obtaining, generating, storing, selling and disposing of raw materials or residues under Article 12 (1) of the Act;
    - b. Reports on measures against nonconforming products under Article 16 (2) of the Act;
    - c. Reports on detection of suspicious materials under Article 21 (1) of the Act;
  4. Investigation and analysis of suspicious materials under Article 21 (2) of the Act;
  5. Investigation of the actual state of safety management of radiation in the natural environment under Article 23 (2) of the Act;
  6. Establishment and operation of a comprehensive information system on radiation in the natural environment under Article 25 (1) of the Act;
  7. Development and operation of education programs under Article 26 of the Act.
  8. Development and implementation of education programs under Article 14-2 (3) (2) When duties are entrusted as provided under paragraph 1, the Commission shall publish the entrusted agency and the contents of the duties with which it has been entrusted.

**Article 17** (Standards, etc. for the Calculation of Expenses)

- (1) Standards for the calculation of expenses under Article 28 (3) of the Act shall be determined and published by the Nuclear Safety and Security Commission in consideration of the following matters:
1. Cost of labor: The amount obtained by multiplying the base cost of labor determined by the Nuclear Safety and Security Commission in consideration of experience, qualifications, etc. and the number of persons directly engaged in relevant business;
  2. Direct expenses: Expenses directly incurred in relevant business that meet standards determined by the Nuclear Safety and Security Commission;
  3. Miscellaneous expenses: Expenses incurred in relevant business, other than direct expenses, that are calculated according to the method determined by the Nuclear Safety and Security Commission.
- (2) When collecting expenses from handlers based on the calculation standards

under paragraph (1), the head of a professional organization shall notify the handlers in writing of the amount, breakdown of expenses, payment deadline and sites for payment.

**Article 18** (Standards for Imposing Fines for Negligence)

Standards for imposing fines for negligence under Article 31 of the Act shall be as prescribed in attached Table.

**ADDENDUM** <Presidential Decree No. 23991, Jul. 24, 2012>

This Decree shall enter into force on July 26, 2012.

**ADDENDUM** <Presidential Decree No. 27206, May. 31, 2016>

This Decree shall enter into force on 2 June 2016. However, the amended provisions of Article 13 shall enter into force on the day it is promulgated.

**ADDENDA** <Presidential Decree No. 27970, Mar. 29, 2017>  
(Enforcement Decree of the Aviation Business Act)

**Article 1** (Enforcement Date)

This Decree shall enter into force on March 30, 2017.

**Article 2 through Article 5** Omitted.

**Article 6** (Amendments to Other Acts)

① through ⑦ Omitted.

⑧ The Enforcement Decree of the Act on Protective Action Guidelines against Radiation in the Natural Environment shall be partially amended as follows:

“Article 112 (1) of the Aviation Act” in Article 9 (1) shall be amended as “Article 7 (1) of the Aviation Business Act.”

⑨ through ⑪ Omitted.

**Article 7** Omitted.

**ADDENDA** <Presidential Decree No. 27972, Mar. 29, 2017>  
(Enforcement Decree of the Airport Facilities Act)

**Article 1** (Enforcement Date)

This Decree shall enter into force on March 30, 2017.

**Article 2 through Article 8** Omitted.

**Article 9** (Amendments to Other Acts)

① through ⑳ Omitted.

㉑ Enforcement Decree of the Act on Protective Action Guidelines against Radiation in the Natural Environment shall be partially amended as follows:

“Article 111 (2) 1 of the Aviation Act” in Article 11 (1) shall be amended as

“Article 38 (1) of the Aviation Business Act.”

㉒ through ㉕ Omitted.

**Article 9** Omitted.

[Table]

## **Criteria for Imposition of Fines for Negligence**

(in reference to Article 18)

### 1. General criteria:

- (a) The criteria for the imposition of fines for negligence corresponding to the number of offenses shall apply to cases in which a fine for negligence has been imposed for the same violation within the past one year. In such cases, the number of violations shall be calculated on the basis of the date of the imposition of the first fine for negligence and the date of the discovery of the repeat of the same violation;
- (b) In any of the following cases, the imposing authority may reduce the fine amount for negligence under subparagraph 2 within the scope of 1/2: Provided, That this shall not apply to a violator who has defaulted on fines for negligence:
  - (i) Where a violator falls under any of the subparagraphs of Article 2-2 (1) of the Enforcement Decree of the Act on the Regulation of Violations of Public Order;
  - (ii) Where a violation is recognized as resulting from minor negligence or error;
  - (iii) Where it is recognized that a violator has endeavored to correct or eliminate the state of a violation;
  - (iv) Other cases where it is recognized as necessary to reduce the amount of a fine for negligence in consideration of the degree of the violation, as well as the motives and consequences of such violation;
- (c) In any of the following cases, the imposing authority may increase the amount of fine for negligence under subparagraph 2 within the scope of 1/2: Provided, That the increased amount shall not exceed the upper limit of fines for negligence under Article 31 (1) through (4) of the Act:
  - (i) Where the state of violation lasts six or more months;
  - (ii) Other cases where it is recognized as necessary to increase the amount of a fine for negligence in consideration of the degree of a violation, and motive and consequences of a violation;

## 2. Criteria by case:

Offence	Relevant provision	Amount of fine for negligence (Unit: 10,000 won)		
		First violation	Second violation	Third or additional violation
(a) In the event of modifying registered matters without reporting thereon, in violation of Article 9 (2) of the Act	Article 31 (3) 1 of the Act	250	500	1,000
(b) In the event of failing to report a succession to status, in violation of Article 10 (3) of the Act	Article 31 (4) 1 of the Act	70	150	300
(c) In the event of failing to report on export or import or reporting falsely, in violation of Article 11 (1) of the Act	Article 31 (3) 2 of the Act	250	500	1,000
(d) In the event of failing to record, store or report pursuant to Article 12 (1) of the Act or recording, storing or reporting falsely without justifiable grounds	Article 31 (3) 3 of the Act	250	500	1,000
(e) In the event of failing to report treatment, disposal or recycling of residues or reporting falsely, in violation of Article 13 (1) of the Act	Article 31 (3) 4 of the Act	250	500	1,000
(f) In the event of failing to conform to the methods and procedures for the treatment, disposal or recycling of residues, in violation of Article 13 (2) of the Act	Article 31 (2) 1 of the Act	500	1,000	2,000
(g) In the event of failing to observe matters under the subparagraphs of Article 14 (1) of the Act when handling or managing raw materials or residues, in violation of Article 14 (1) of the Act	Article 31 (3) 5 of the Act	250	500	1,000
(h) Where a handler or manufacturer fails to take safety measures, in violation of Article 14 (2) of the Act	Article 31 (2) 2 of the Act	500	1,000	2,000
(i) In the event of manufacturing or exporting or importing products that fail to meet safety standards, in violation of Article 15 of the Act	Article 31 (2) 3 of the Act	500	1,000	2,000
(j) In the event of failing to report pursuant to Article 16 (2) of the Act or reporting falsely, without justifiable grounds	Article 31 (3) 6 of the Act	250	500	1,000

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(k) In the event of failing to comply with an order issued by the Nuclear Safety and Security Commission to disclose facts and take measures, in violation of Article 17 (1) of the Act	Article 31 (1) of the Act	600	1,300	2,500
(l) Where an air transportation business operator fails to investigate or analyze matters under the subparagraphs of Article 18 (3) of the Act, in violation of Article 18 (3) of the Act	Article 31 (4) 2 of the Act	70	150	300
(m) Where an air transportation business operator fails to take safety measures, in violation of Article 18 (4)	Article 31 (3) 7 of the Act	250	500	1,000
(n) In the event of failing to report pursuant to Article 21 (1) or reporting falsely, without justifiable grounds	Article 31 (3) 8 of the Act	250	500	1,000
(o) In the event of failing to take measures such as supplementation, return or collection as required by an order issued by the Nuclear Safety and Security Commission, in violation of Article 22 (1) of the Act	Article 31 (3) 9 of the Act	250	500	1,000
(p) When the subject party fails to follow orders under Article 20-2 (2) of the Act.	Article 31 (3) 7-2	2,500,000	5,000,000	10,000,000
(q) In the event of refusing, interfering with or evading investigation under Article 23 of the Act, without justifiable grounds	Article 31 (3) 10 of the Act	250	500	1,000
(r) In the event of failing to report or submit data pursuant to Article 24 (1) of the Act or reporting falsely or submitting falsified data, without justifiable grounds	Article 31 (2) 4 of the Act	500	1,000	2,000
(s) In the event of refusing, interfering with or evading inspection or collection under Article 24 (2) of the Act, without justifiable grounds	Article 31 (2) 5 of the Act	500	1,000	2,000
(t) When the subject party fails to have those responsible for the operation of monitoring appliances undergo education in violation of Article 26-2 (1).	Article 31 (4) 3	700,000	1,500,000	3,000,000