

Part I

Guidelines for Survey on  
Pollution Status  
(Tentative Translation)

March 2013, 2nd Edition

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## Chapter 1 Introduction

### 1.1 Definition of Terms

Definition of terms used herein is indicated below.

Term	Explanation
Act	Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District - Off the Pacific Ocean Earthquake that Occurred on March 11, 2011 (Act No. 110 of 2011)
Radioactive Materials Caused by the Accident	Refers to cesium-134 and cesium-137 which were emitted by the nuclear power station due to the Nuclear Power Station Accident in connection with the Tohoku District - Off the Pacific Ocean Earthquake which occurred on March 11, 2011
Waste Management Act	Waste Management and Public Cleansing Act
Specified Municipal Solid Waste	<p>Specified municipal solid waste is regulated under Article 28 of the ordinance and the specific details are as follows.</p> <p>[1] Waste generated in connection with measures for decontamination of the soil, etc., applicable to the land in the specific area for decontamination and decontamination zone.</p> <p>[2] Soot, dust and ash and other residue generated by incineration facilities which are general waste treatment facilities (limited to only those listed below.)</p> <p>(1) Soot, dust and ash and other residue generated by facilities in Fukushima Prefecture</p> <p>(2) Soot generated by facilities in Iwate, Miyagi, Yamagata, Ibaraki, Tochigi, Gunma, Saitama, Chiba or Tokyo (except for islands)</p> <p>[3] Waste of rice straw and waste of compost (limited to those generated in Iwate, Miyagi, Fukushima or Tochigi Prefectures)</p> <p>[4] Those treated to dispose of the waste set forth in [1] ~ [3] above, which do not fall under any of these kinds of waste</p>
Specified Industrial Waste	<p>Specified industrial waste is regulated under Article 30 of the ordinance and the specific details are as follows.</p> <p>[1] Waste generated in connection with measures for decontamination of the soil, etc., applicable to the land in the specific area for decontamination and decontamination zone.</p> <p>[2] Dehydrated sludge and dried sludge generated by water facilities (limited to only those listed below.)</p> <p>(1) Those generated by facilities located in Fukushima Prefecture</p> <p>(2) Those generated by facilities located in Miyagi, Tochigi and Gunma Prefectures that have been dried using sun drying equipment in the relevant facilities</p> <p>[3] Generated sludge, etc., (only limited to those set forth below) related to public sewerage or basin sewerage</p> <p>(1) Incinerated sludge generated by final treatment facilities for combined public sewerage or basin sewerage located in Fukushima Prefecture</p> <p>(2) Soot from incinerated sludge generated by final treatment facilities for separated public sewerage or basin sewerage located in Fukushima Prefecture (excluding those incinerated in fluidized bed incinerators.)</p>

	<p>(3) Soot from incinerated sludge generated by the final treatment facilities for public sewerage or basin sewerage located in Ibaraki, Tochigi, Fukushima, Gunma, Saitama, Chiba, Tokyo (except for islands) or Kanagawa Prefectures (excluding those incinerated in fluidized bed incinerators.)</p> <p>(4) Dehydrated sludge generated by the final treatment facilities for combined public sewerage or basin sewerage located in Fukushima Prefecture</p> <p>For (1) to (4), even for separate public sewerage or basin sewerage facilities, those that take in concentrated sludge generated in combined public sewerage or basin sewerage facilities and then process it in bulk shall correspond to the final treatment facilities in combined public sewerage or basin sewerage facilities.</p> <p>[4] Dehydrated sludge and dried sludge generated by industrial water facilities (limited to those generated by facilities located in Fukushima and Tochigi Prefectures.)</p> <p>[5] Soot, dust and ash and other residue generated by incineration facilities which are industrial waste treatment facilities (limited to only those listed below.)</p> <p>(1) Soot, dust and ash and other residue generated by facilities in Fukushima Prefecture</p> <p>(2) Soot generated by the facilities located in Iwate, Miyagi, Yamagata, Ibaraki, Tochigi, Gunma, Saitama, Chiba or Tokyo (except for islands)</p> <p>[6] Waste of compost (limited to those generated in Iwate, Miyagi, Fukushima or Tochigi Prefectures)</p> <p>[7] Those treated to dispose of the waste set forth in [1] ~ [6] above, which do not fall under any of these kinds of waste</p>
<p>Specified Municipal Solid Waste Disposal Facilities</p>	<p>Specified municipal solid waste disposal facilities are regulated under Article 32 of the ordinance and the specific details are as follows.</p> <p>[1] Incineration facilities, melting facilities, thermal decomposition facilities or burning facilities provided for treatment of specified municipal solid waste</p> <p>[2] In addition to [1], incineration facilities, melting facilities, thermal decomposition facilities or burning facilities for general waste located in Iwate, Miyagi, Yamagata, Fukushima, Ibaraki, Tochigi, Gunma, Saitama, Chiba or Tokyo</p> <p>[3] Final disposal sites to be provided or have been provided for landfill disposal of specified municipal solid waste</p>
<p>Specified Industrial Waste Disposal Facilities</p>	<p>Specified industrial waste disposal facilities are regulated under Article 34 of the ordinance and the specific details are as follows.</p> <p>[1] Facilities set forth in the Industrial Waste Treatment Act, Enforcement Order, Article 7, item (i), item (iii), item (v), item (viii), item (xi)-2, item (xii) or item (xiii)-2, which are provided for treatment of specified industrial waste</p> <p>[2] In addition to those set forth in [1] above, facilities set forth in the Industrial Waste Treatment Act, Enforcement Order, Article 7, item (i), item (iii), item (v), item (viii), item (xi)-2, item (xii) or item (xiii)-2, located in Iwate, Miyagi, Yamagata, Fukushima, Ibaraki, Tochigi, Gunma, Saitama, Chiba, Tokyo</p> <p>[3] Final disposal sites to be provided or have been provided for landfill disposal of specified industrial waste</p>

## 1.2 Purpose of the Guidelines

The purpose of the Guidelines is to explain the specified method of conducting a survey, report and application, etc., of the status of contamination by radioactive materials discharged by the accident by the administrator of water facilities and possessor of waste under the Act, Article 16 or Article 18.

Hereinafter, upon indicating the standards for designation of designated waste, the summary of systems, survey method, and procedures of report and application, etc., under the Act, Article 16 and Article 18 are explained.

## Chapter 2 Standards for Designation of Designated Waste (Act, Article 17, paragraph (1))

### [Summary of the System]

- If the Minister of the Environment determines that the status of contamination of waste by the radioactive materials discharged by the accident does not conform to the standards after the survey, the Minister of the Environment shall designate the waste as the “designated waste.”
- Designated waste is to be managed by the national government.

Designated waste shall be the waste with the total value of radioactive concentration of cesium-134 and cesium-137 exceeding 8,000Bq/kg.

## Chapter 3 Survey on Pollution Status of Waste by Radioactive Materials Discharged by the Accident (Act, Article 16)

### 3.1 Summary of the Act, Article 16

### [Summary of the System]

- Administrators of water facilities, public sewerage, basin sewerage, industrial water facilities, municipal solid waste incineration facilities, industrial waste incineration facilities and rural community sewerage system, falling under certain requirements, shall conduct a survey on the status of contamination of the sludge, soot and dust, etc., for effluent treatment facilities of the communities by radioactive materials discharged by the accident and report the survey results to the Director of Regional Environmental Office by the end of the following month of the month the subject waste was generated.

In the survey under the Act, Article 16, the waste\* generated after January 1, 2012 shall be the subject. If the radioactive concentration of waste which had been stored before January 1, 2012 exceeds 8,000Bq/kg, survey and application (refer to “Chapter 4. Application for designation of waste contaminated with radioactive materials discharged by the accident”) shall be made.

In the **Figure 3-1** on the next page, survey and report flow under the Act, Article 16 is shown.

- \* If waste cannot be made separable from waste generated before January 1, 2012, it is permitted to conduct a survey together with the waste generated before January 1, 2012.

## Survey and Report Flow Chart under the Act, Article 16

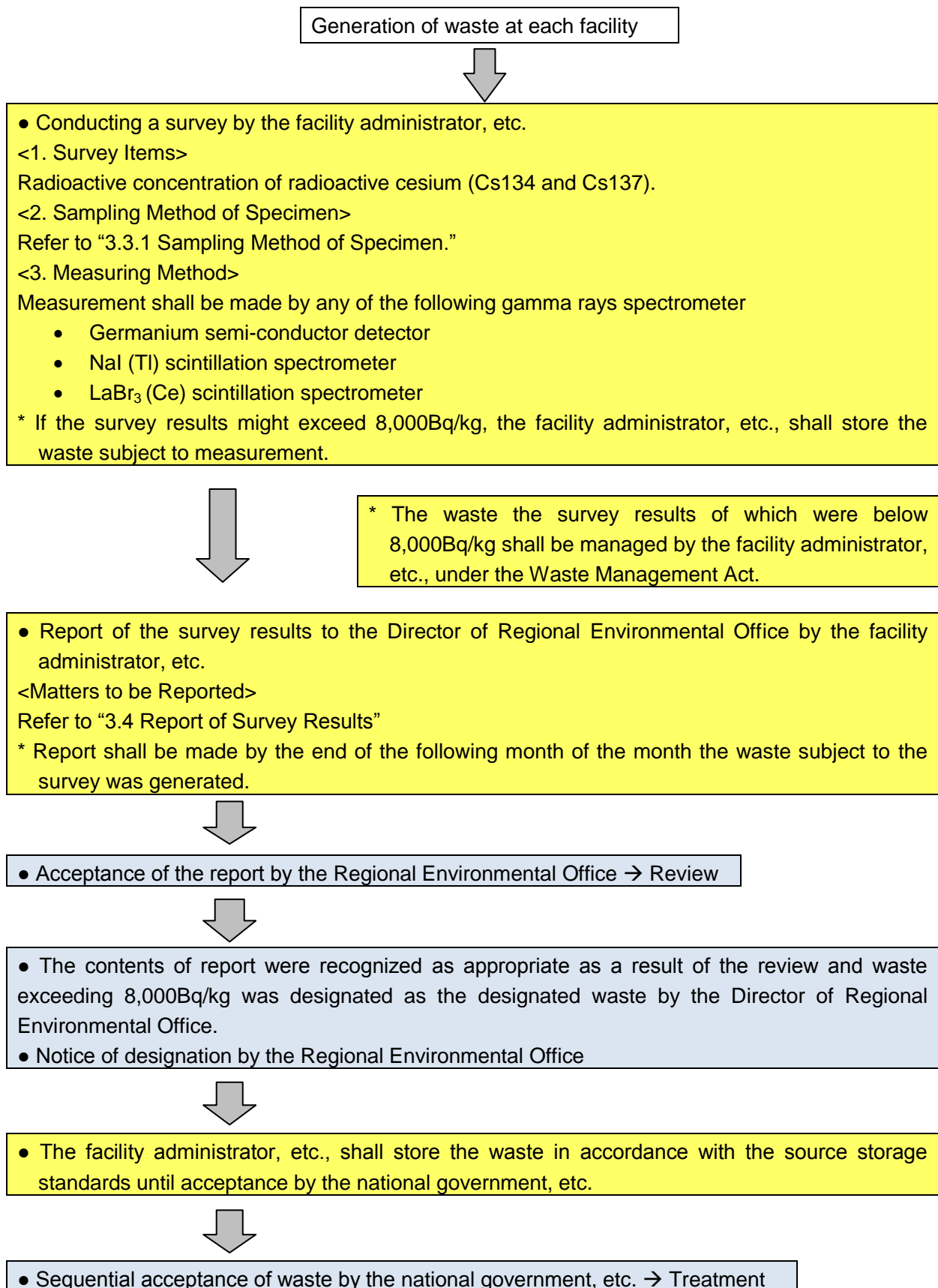


Figure 3-1: Flow of Survey and Report under the Act, Article 16

### 3.2 Requirements for Facilities subject to Mandatory Survey and subject Waste (Act, Article 16, paragraph (1), each item)

#### 3.2.1 Requirements for Facilities subject to Mandatory Survey

Requirements for the facilities subject to mandatory survey are the facilities located in the regions indicated in **Table 3-1** by kind of facility, except for incineration facilities, which are specified municipal solid waste disposal facilities and specified industrial waste disposal facilities.

All the incineration facilities, which are specified municipal solid waste disposal facilities and specified industrial waste disposal facilities, are to be subject to a survey. For the incineration facilities, which are specified municipal solid waste disposal facilities and specified industrial waste disposal facilities, in addition to the requirement of location in the regions set forth in **Table 3-1**, it is also the requirement for each facility to treat specified municipal solid waste and specified industrial waste.

However, the facilities confirmed by the Director of Local Environmental Office shall be exempted from mandatory survey under the Act, Article 16, paragraph (1), even if these are the facilities subject to mandatory survey (for details, refer to “**3.5: On Exemption of Mandatory Survey**”).

**Table3-1: Regions subject to mandatory survey under the Act, Article 16**

Areas subject to Mandatory Survey		Iwate	Miyagi	Yamagata	Fukushima	Ibaraki	Tochigi	Gunma	Saitama	Chiba	Tokyo*	Kanagawa	Niigata*
		Kinds of Facilities											
[1] Water facilities			○		○	○	○	○	○	○	○		○
[2] Public sewerage system and basin sewerage	Facilities generating dehydrated sludge				○		○						
	Facilities generating soot and dust and residue				○	○	○	○	○	○	○	○	
[3] Industrial water facilities			○		○	○	○	○	○	○	○		○
[4] Incineration facilities, which are specified municipal solid waste disposal facilities and specified industrial waste disposal facilities**		○	○	○	○	○	○	○	○	○	○		
[5] Rural community sewerage systems					○								

\* Except for islands

\*\* In addition to the facilities located in these areas, including the facilities treating specified municipal solid waste and specified industrial waste.

#### 3.2.2 Kinds of Waste subject to Mandatory Survey

Kinds of waste to be subject to mandatory survey under the Act, Article 16 are shown by facility in **Table 3-2** below.

**Table 3-2: Kinds of waste to be subject to mandatory survey under the Act, Article 16**

Kind of Facility	Kind of Waste
[1] Water facilities	Dehydrated sludge, dried sludge
[2] Public sewerage system and basin sewerage	Dehydrated sludge Soot and dust (fly ash), incinerated ash and any other residue (bottom ash, slag)
[3] Industrial water facilities	Dehydrated sludge, dried sludge
[4] Incineration facilities which are specified municipal solid waste disposal facilities/specified industrial waste disposal facilities	Soot and dust (fly ash), incinerated ash and any other residue (bottom ash, slag)
[5] Rural community sewerage systems	Dehydrated sludge, dried sludge

\* A survey shall be conducted in the forms generated as waste by the administrator of [1] through [5] above.

### 3.3 Survey Method of Status of Pollution (Act, Article 16, paragraph (1))

Survey method of the status of pollution by radioactive materials discharged by the accident under the Act, Article 16, paragraph (1) shall be as follows.

- [1] Classify the waste subject to a survey into the unit (survey unit), whose status of contamination by radioactive materials discharged by the accident is assumed to be substantially similar.
- [2] Take a sample of four or more specimens per survey unit and mix them by similar weight.
- [3] Measure the mixed specimens by germanium semiconductor detector, NaI (Tl) scintillation spectrometer or LaBr<sub>3</sub> (Ce) scintillation spectrometer.

#### 3.3.1 Sampling Method of Specimens

##### 3.3.1.1 Classification Method of Survey Unit

An example of classification method of survey unit at each facility is shown in **Table 3-3**.

**Table 3-3: Example of Classification Method of Survey Unit**

Kind of Waste	How to classify the Survey Unit
Sludge, etc., generated by water facilities, industrial water facilities, community agricultural effluent treatment systems	<ul style="list-style-type: none"><li>• Survey unit shall generally be classified according to the carrying-out frequency</li></ul>
Dehydrated sludge and incinerated ash, etc., generated by public sewerage and basin sewerage	<ul style="list-style-type: none"><li>• Survey unit shall be classified with reference to the management data measured in the past (rainfall strength, etc.)</li></ul>
Incinerated ash, etc., generated by incineration facilities which are specified municipal solid waste disposal facilities and specified industrial waste disposal facilities	<ul style="list-style-type: none"><li>• If the nature of accepted waste differs, survey unit shall be classified before and after acceptance of the waste. (Ex.) If large amount of pruned trees and fallen leaves were carried in.</li></ul>

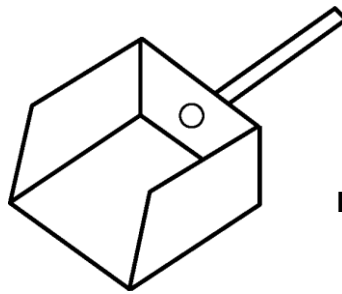
- \* If a decontamination plan is carried out, as the radioactive concentration might increase after the start of decontamination, it is desirable to comprehend the status of contamination by measuring, etc., the amount of radiation of waste after start of decontamination.



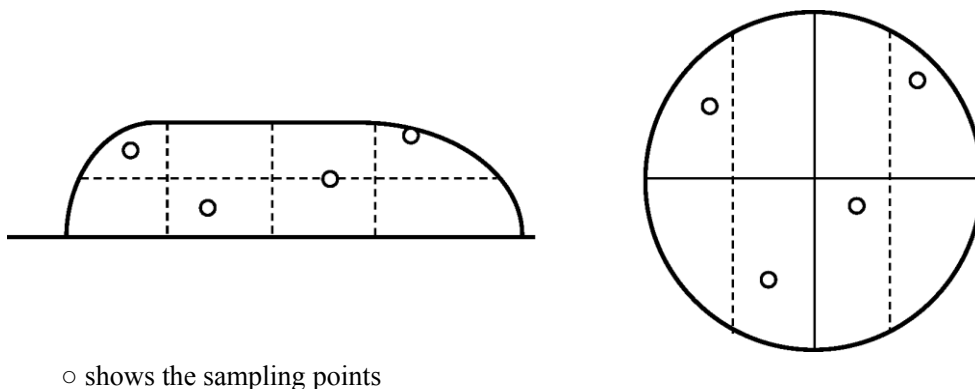
### 3.3.1.2 Sampling Method of Specimens

Sampling of specimens shall be made, considering the representativeness based on the objective and status of the source and specimens. An example of sampling of specimens is shown below.

- [1] For sampling of specimens, increment scoop, etc., shall be used (**Figure 3-2**).
- [2] In case of piled specimens, sample from four and more points mutually distant so as to ensure representativeness (**Figure 3-3**). If the specimens are running on a conveyor, sample four times or more by a fixed interval while the survey unit is running.
- [3] After crushing the specimens as appropriate, put the specimens at about the same weight in a container (a plastic bag with a fastener is acceptable) and mix sufficiently.
- [4] Quantity of sampling of specimens for measurement shall be 500g ~ 1kg in total.



**Figure 3-2: Increment Scoop**



**Figure 3-3: Examples of sampling points of piled specimens (in case of four points)**

### 3.3.2 Measuring Method of Specimens

Concentration of cesium-134 and cesium-137 shall be measured by either of the following methods. Efficiency calibration using Cesium 134 and Cesium 137, which is the subject of measurement nuclear species, is desirable.

#### (1) $\Gamma$ -ray spectrometry using germanium semiconductor detector

To be conducted in compliance with “Radiation Measuring Method Series 7:  $\Gamma$ -ray spectrometry using germanium semiconductor detector” (Amended in 1992, Ministry of Education, Culture, Sports, Science and Technology)

## (2) NaI (TI) scintillation spectrometer and LaBr<sub>3</sub>(Ce) scintillation spectrometer device analysis method

To be conducted in compliance with “Radiation Measuring Method Series 6: NaI (TI) scintillation spectrometer device analysis method” (1974, Ministry of Education, Culture, Sports, Science and Technology). Spectrometry measurements using a LaBr<sub>3</sub> (Ce) scintillation detector with better resolution capability than a NaI (TI) scintillation detector shall be included in this analytical method.



Figure 3-4-1: Example of  $\Gamma$ -ray spectrometry using germanium semiconductor detector



Figure 3-4-2: Example of NaI (TI) scintillation spectrometer



Figure 3-4-3 Example of a LaBr<sub>3</sub> (Ce) scintillation spectrometer

### 3.4 Report of Survey Results (Act, Article 16, paragraph (1))

Report under the Act, Article 16, paragraph (1), the text shall be made by submitting the report in the Form 1, describing the following matters by the end of the following month of the month the survey subject waste under the same paragraph was generated.

[1] Name or appellation and address, and in case of a corporation, name of the representative

- [2] Business establishments related to the facilities where waste subject to a survey was generated and the name, address and contact of the storage site of waste.
  - [3] Kind and quantity of waste subject to a survey and the time of generation of the waste.
  - [4] Sampling method of specimens of the waste subject to a survey and the date of sampling, analysis method of the specimens and the results and date the results were obtained, name or appellation of the analyzing person and any other matters concerning the survey results.
- \* In the report, documents and photos, which clarify the status of storage of waste subject to a survey shall be attached. In addition, documents certifying the described survey results shall be attached (measurement results certificate, etc., issued by the outsourced company which was outsourced for measurement).

The matters of note for report of survey results and description examples are shown below.

### 3.4.1 Matters to be described in the Report

#### 3.4.1.1 Name, address and contact of the storage site of waste

The name, address and contact of the place where the waste subject to a survey is stored shall be described and if treatment was completed based on the survey results, it shall be described as completion of treatment and not stored.

#### 3.4.1.2 Kinds of Waste

Table 3-4 shows the kinds of waste generated by various facilities.

**Table 3-4: Kinds of Waste**

Kind of Facility	Kind of Waste
[1] Water facilities	Dehydrated sludge, dried sludge
[2] Public sewerage system and basin sewerage	Dehydrated sludge Soot and dust (fly ashes), incinerated ashes and any other residue (bottom ash, slag)
[3] Industrial water facilities	Dehydrated sludge, dried sludge
[4] Incineration facilities which are specified municipal solid waste disposal facilities/specified industrial waste disposal facilities	Soot and dust (fly ash), incinerated ash and any other residue (bottom ash, slag)
[5] Rural community sewerage systems	Dehydrated sludge, dried sludge

#### 3.4.1.3 Quantity of Waste

State the weight (t) or volume (m<sup>3</sup>) per survey unit and if stored in containers, the number of containers

#### 3.4.1.4 Time of Generation of Waste

Time of generation of the waste stored.

#### 3.4.1.5 Method for Sampling Specimens

For the method for sampling specimens, method of classification of survey unit, number of sampling of specimens per survey unit, apparatus used for sampling, total sampling amount of specimens, kind of containers of sampling specimens, etc., shall be described. In addition, it is desirable to describe the plan in an Exhibit, showing the place of sampling of specimens from the survey unit.

Summary shall be described in the report and the details may be attached as separate materials.

#### **3.4.1.6 Method of Analysis**

Measuring method, name of model of measuring apparatus, the lower limit of detection, etc., shall be described.

#### **3.4.1.7 Attached Documents**

Documents and photos clarifying the status of storage of waste subject to a survey shall be attached. In addition, documents certifying the survey results (measurement results certificate, etc., issued by the outsourced measuring company) shall be attached.

#### **3.4.2 Due Date of Report of Survey Results**

Since report of survey results shall be made by the end of the following month of the month the waste subject to a survey was generated, if analysis is requested, a request shall be made to the analyzing company so that the survey results would be reported within the prescribed period, considering the time for preparation and submission of the report.

#### **3.4.3 Submission Method of Report of Survey Results**

Report of survey results shall be submitted by mail or direct delivery to the Regional Environmental Office, having jurisdiction over the address of the facility.

#### **3.4.4 Report Form of Survey Results**

On the next page and thereafter, report form (Form No. 1 (Article 4 related)) and description examples are shown.

**Form No. 1** (Article 4 related)

(Front)

Survey Report of the Status of Pollution of Waste by Radioactive Materials Discharged by the Accident	
Date:	
To Minister of the Environment	
From:	
Name:	
Address:	
(For a corporation, business name and name of the representative)	
Telephone Number:	
Under Article 16, paragraph (1) of the “Ordinance for Enforcement of the Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District - Off the Pacific Ocean Earthquake that Occurred on March 11, 2011,” we report the status of contamination of waste by radioactive materials caused by the accident.	
[1] Kind of the facility where the waste subject to a survey was generated	
[2] Name, address and contact of the business establishment related to the facility where the waste subject to a survey was generated	
[3] Name, address and contact of the storage site of waste subject to a survey	
[4] Kind of waste subject to a survey	
[5] Quantity of waste subject to a survey	
[6] Time the waste subject to a survey was generated	
[7] Sampling method	

(Japanese Industrial Standards Column A-No.4)

(Back)

[8]	Date of sampling the specimens	
[9]	Analysis method of specimens	
[10]	Results of analysis of specimens	(Cesium-134) Bq/kg (Cesium-137) Bq/kg (Total) Bq/kg
[11]	Date of obtaining the results of analysis of specimens	
[12]	Name or appellation of the person who conducted analysis of specimens	

Remarks

In the Application Form, documents and photos clarifying the status of storage of waste shall be attached.

Survey Report of the Status of Pollution of Waste by Radioactive Materials Discharged by the Accident	
Date: <i>February 27, 2012</i>	
To Minister of the Environment	
From:	
Name: <i>XXXX Corporation</i> <i>Representative Director: XXXX</i>	
Address: <i>XXX XXX XXX</i> (For a corporation, business name and name of the representative)	
Telephone Number: <i>XXX-XXX-XXXX</i>	
Under Article 16, paragraph (1) of the “Ordinance for Enforcement of the Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District - Off the Pacific Ocean Earthquake that Occurred on March 11, 2011,” we report the status of contamination of waste by radioactive materials d by the accident.	
[1] Kind of the facility where the waste subject to a survey was generated	<i>Incineration facility which is the specified industrial waste disposal facility</i>
[2] Name, address and contact of the business establishment related to the facility where the waste subject to a survey was generated	<i>XXX Corporation, XX Station Address: XXX XXX XXX Tel: XXX-XXX-XXXX</i>
[3] Name, address and contact of the storage site of waste subject to a survey	<i>Same as above</i>
[4] Kind of waste subject to a survey	<i>Soot and dust (fly ash)</i>
[5] Quantity of waste subject to a survey	<i>Flexible container: 20 (approximately 20t, 20m<sup>3</sup>) Approximately 1t (1m<sup>3</sup>) per container</i>
[6] Time the waste subject to a survey was generated	<i>From January 18 to February 15, 2012</i>
[7] Sampling method of specimen	<i>Soot and dust stored in 20 drum cans, which were generated from the previous survey to the date of sampling the specimens, were the survey unit. Four drum cans are sampled at random and from each drum can, approximately 250g of the specimens were sampled by increment scoop and a total of approximately 1kg of the specimens was sampled. Sampled specimens were mixed in a plastic bag with a fastener. The points of sampling the specimens were as set forth in the Exhibit.</i>

(Japanese Industrial Standards Column A-No.4)

(Back)

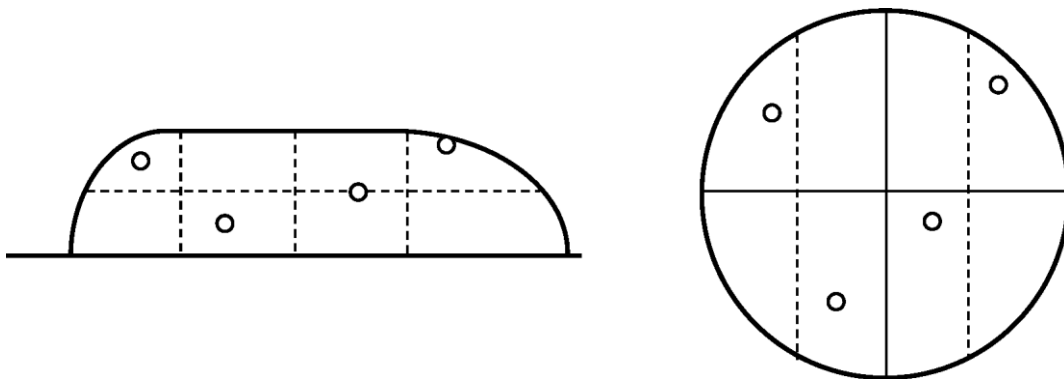
[8]	Date of sampling the specimens	<i>February 15, 2012</i>
[9]	Analysis method of specimens	<i>NaI (Tl) scintillation spectrometer Apparatus analysis (Model: xxxx) Lower Limit of Detection Value: 50 Bq/kg</i>
[10]	Results of analysis of specimens	(Cesium-134)                      2,000 Bq/kg (Cesium-137)                      2,500 Bq/kg (Total)                                4,500 Bq/kg
[11]	Date of obtaining the results of analysis of specimens	<i>February 20, 2012</i>
[12]	Name or appellation of the person who conducted analysis of specimens	<i>XXXX Corporation Person in charge of measurement:</i>

Remarks

In the Application Form, documents and photos clarifying the status of storage of waste shall be attached.

**(Exhibit)**

**Sampling points of specimens for the survey were generally as follows.**



○ shows the sampling points.



### **3.5 Exemption from Mandatory Survey**

Out of the facilities subject to mandatory survey under the Act, Article 16, paragraph (1), the facilities, which were confirmed by the Director of the Regional Environmental Office as the facilities falling under certain requirements, shall be exempted from mandatory survey. In this regard, if incineration facilities which are specified municipal solid waste disposal facilities and specified industrial waste disposal facilities are confirmed by the Director of the Regional Environmental Office as the facilities falling under certain requirements, the mandatory survey under the Act, Article 16, paragraph (1) shall be exempted and also the maintenance and management standards under the Act, Article 24 shall be exempted.

#### **3.5.1 Confirmation Requirements**

Requirements for confirmation by the Director of the Regional Environmental Office shall be either item [1] or item [2] below.

[1] The most recent measurement results of radioactive concentration was below 800Bq/kg.

[2] All the measurement results of radioactive concentration for more than twice during the most recent three (3) months were below 6,400Bq/kg.

[Requirement [1]]

If the facility administrator believes the facility satisfies the requirement [1] and submits an application, the administrator shall confirm that at the time of application, the most recent measurement results of radioactive concentration were below 800Bq/kg.

[Requirement [2]]

For “during the most recent three (3) months” in the requirement [2], the earliest date and the latest date have an interval of over 60 days out of the “dates of sampling the specimens” related to the measurement results of more than two in the most recent measurements at the time of application.

Therefore, if the facility administrator believes that the facility satisfies the requirement [2] and submits an application, the administrator shall confirm that the measurement results of more than two in the most recent measurements were all below 6,400Bq/kg (out of the “Date of sampling the specimens” related to the most recent measurement results more than two, the earliest date and the latest date have an interval of over 60 days out of the “dates of sampling the specimens” related to the more than two measurement results).

#### **3.5.2 Exemption Provision from Mandatory Survey**

If either of the requirements [1] or [2] shown in “**3.5.1 Requirements for Confirmation**” is satisfied and confirmation by the Director of the Regional Environmental Office is requested, the Application Form shall be submitted to the Director of the Regional Environmental Office. Thereafter, upon confirmation of the application contents by the Director of the Regional Environmental Office, written notice shall be provided. In application, the survey results before January 1, 2012 may be used.

Form of the Application Form and an example of confirmation notice are as follows. In this regard, to the Application Form, documents certifying the survey results of radioactive concentration (measurement results certificate, etc., issued by the outsourced company which was outsourced for measurement) shall be attached.

[Example of Form of Application Form]

Application Form for Confirmation under the Ordinance for Enforcement of the Act on Special Measures concerning the Handling of Radioactive Pollution, Article X

Date:

To: Director of Regional Environmental Office

Applicant

Name:

Address:

(For a corporation, business name and name of the representative)

Telephone Number:

We would like to receive confirmation under the “Ordinance for Enforcement of the Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District - Off the Pacific Ocean Earthquake that Occurred on March 11, 2011” Enforcement Rules, Article X and make an application with related documents attached.

1. Kind of the facility where the waste subject to a survey was generated  
*Water treatment facility*
2. Name, address and contact of the business establishment related to the facility where the waste subject to a survey was generated  
*XX Water Purification Plant*  
*Address: XXX*  
*Telephone: XXX*
3. The most recent measurement results of the radioactive concentration were as follows.

Kind of waste subject to a survey	Time of generation of waste subject to a survey	Date of sampling the specimens	Radioactive concentration (Bq/kg)			Attached Materials No.
			Cs-134	Cs-137	Total Cs	
<i>Dehydrated sludge</i>	<i>From April 3, 2012 to May 9, 2012</i>	<i>May 9, 2012</i>	<i>2700</i>	<i>3300</i>	<i>6000</i>	<i>[1]</i>
<i>Dehydrated sludge</i>	<i>From May 10, 2012 to June 6, 2012</i>	<i>June 6, 2012</i>	<i>2590</i>	<i>3210</i>	<i>5800</i>	<i>[2]</i>
<i>Dehydrated sludge</i>	<i>From June 7, 2012 to July 11, 2012</i>	<i>July 11, 2012</i>	<i>2435</i>	<i>2865</i>	<i>5300</i>	<i>[3]</i>

Remarks

Documents certifying the survey results shall be attached to the Application Form.

[Notice Document Example]

Notification Form of Confirmation under the Ordinance for Enforcement of the Act on  
Special Measures concerning the Handling of Radioactive Pollution, Article 6

Document Number

Date:

To: XXXX

From: Director of XX Regional Environmental Office

For the following facility applied as of XX at Number YYYY, we will confirm under the Enforcement Rules, Article 6 as a result of review and hereby notify you.

*XX Water Purification Plant*

*Address: XXX*

*Telephone Number: XXX*

## Chapter 4 Application for Designation of Waste Contaminated with Radioactive Materials Discharged by the Accident (Act, Article 18, paragraph (1) through paragraph (3))

### 4.1 Summary of the System under the Act, Article 18

#### [Summary of the System]

- It is provided that a person who believes that the waste falls under the designated waste as a result of a survey of the contamination state of the possessing waste by the radioactive materials discharged by the accident may apply to the Director of Regional Environmental Office for designation of the waste to the designated waste.
- It is provided that a person who makes an application shall attach to the Application Form, describing the method and results, etc., of the survey on status of pollution by the radioactive materials discharged by the accident and submit the prescribed documents.
- It is provided that designated waste is to be managed by the national government.

Application under the Act, Article 18 may be made by any person who possesses waste. Kind of waste subject to application is not limited.

In this regard, the facilities subject to a survey under the Act, Article 16, where the radioactive concentration of waste stored before January 1, 2012 exceeds 8,000Bq/kg, application shall be made based on the survey under the Act, Article 18.

Application may also be made based on the survey results before January 1, 2012.

Flow of survey and application under the Act, Article 18 is shown in **Figure 4-1** on the next page.

## Flow Chart of Survey and Application under the Act, Article 18

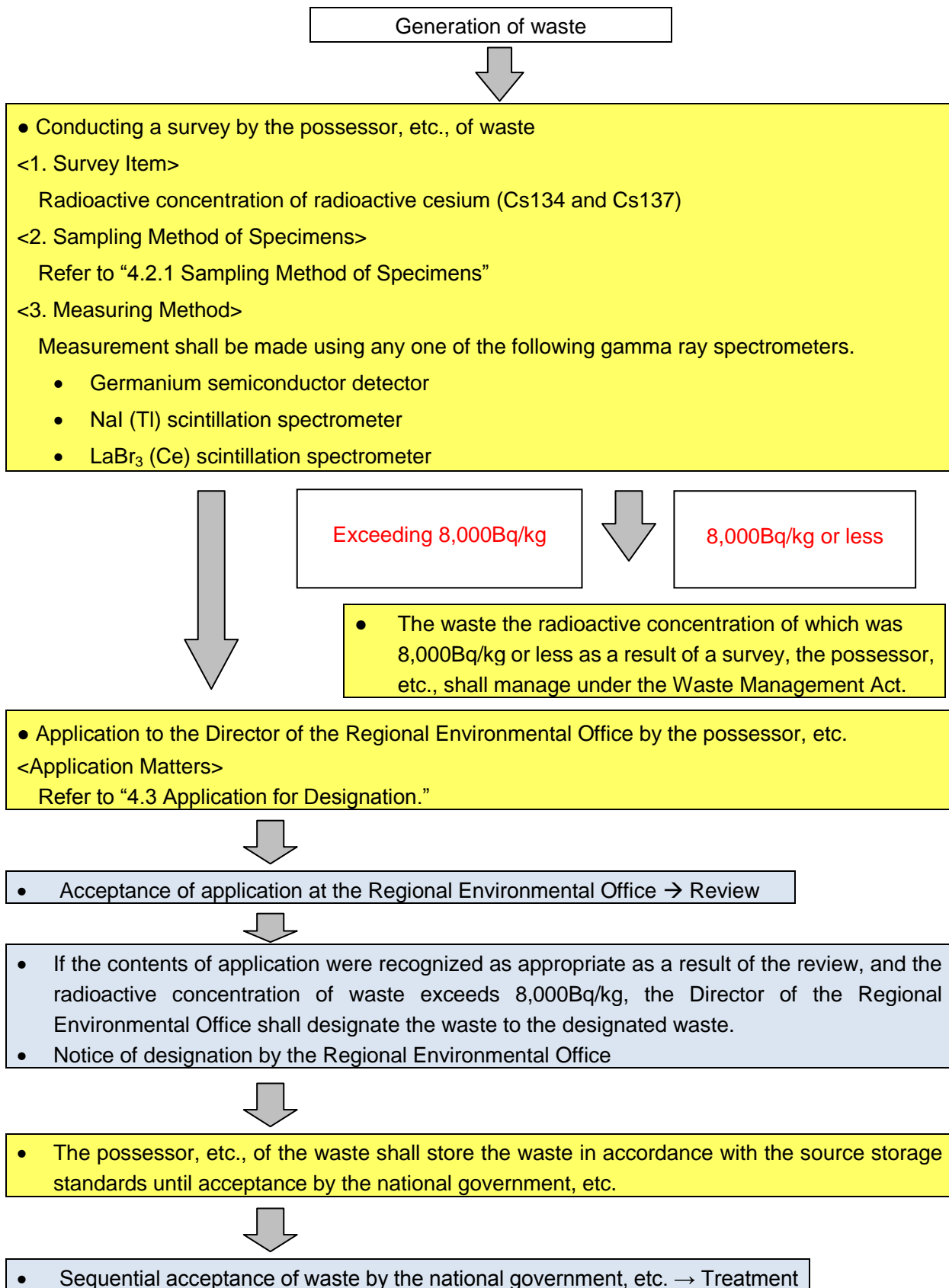


Figure 4-1: Flow of survey and application under the Act, Article 18

## 4.2 Survey Method on Status of Contamination (Act, Article 18, paragraph (3))

Survey method of contamination of the waste by radioactive materials discharged by the accident under the Act, Article 18, paragraph (3) shall be as follows.

- [1] Classify the subject waste into the unit whose contamination status by radioactive materials discharged by the accident is assumed to be generally similar (survey unit).
- [2] Sample 10 or more specimens (if the waste is sludge, soot and dust and incinerated ash, etc., discharged from water facilities, public sewerage, basin sewerage, industrial water disposal facilities, municipal solid waste incineration facilities, industrial waste incineration facilities and rural community sewerage system, 4 or more specimens) from the survey unit and the specimens of similar weight shall be mixed.
- [3] The mixed specimens shall be measured, using a germanium semiconductor detector, an NaI (TI) scintillation spectrometer, or an LaBr<sub>3</sub> (Ce) scintillation spectrometer.

### 4.2.1 Sampling Method of Specimens

#### 4.2.1.1 Classification Method of Survey Unit

Classification of survey unit shall be made by the nature of waste, time of generation, facility of generation and area of generation. An example of classification method of survey units is shown in **Table 4-1**.

**Table 4-1: Example of Classification Method of Survey Unit**

Kind of Waste	Content of Classification of Survey Unit
Sludge and incinerated ash, etc., stored before January 1, 2012	<ul style="list-style-type: none"> <li>• In general, survey unit shall be classified according to the generated facility, period of generation (generally within a month) and nature of the waste.</li> </ul>
Waste rice straw, waste pasture grass, etc.	<ul style="list-style-type: none"> <li>• Survey unit shall be classified among the stored waste by the time of production and area of generation (e.g., by settlement or municipality).</li> </ul>
Waste compost, waste fertilizer, etc.	<ul style="list-style-type: none"> <li>• Survey unit shall be classified according to the original production site and nature of raw materials and the time of purchase of raw materials.</li> </ul>

#### 4.2.1.2 Sampling Method of Specimens

##### (1) **Sludge, soot and dust and incinerated ash, etc., discharged from the water facilities, public sewerage, basin sewerage, industrial water disposal facilities, municipal solid waste incineration facilities, industrial waste incineration facilities and rural community sewerage system**

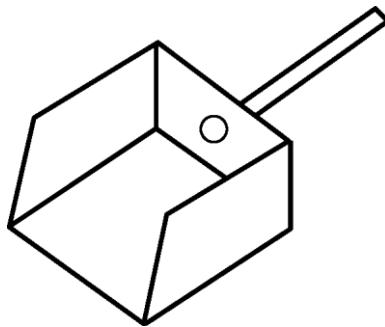
Sampling of specimens shall be made, considering the representativeness based on the objective and status of the source and specimens. An example of sampling of specimens is shown below.

- [1] For sampling of specimens, an increment scoop, etc., shall be used (**Figure 4-2**).
- [2] In case of piled specimens, sample from four or more points mutually distant so as to ensure representativeness. If the specimens are running on a conveyor, sample four times or more by a certain interval while the survey unit is running. If the waste of the same survey unit is stored divided in multiple containers, select four or more containers at random to ensure representativeness and sample specimens from one or more points of the selected containers.
- [3] After crushing the specimens as appropriate, put the specimens with about the same weight in a container (a plastic bag with a fastener is acceptable) and mix sufficiently.
- [4] Quantity of sampling of specimens for measurement shall be 500g ~ 1kg in total.

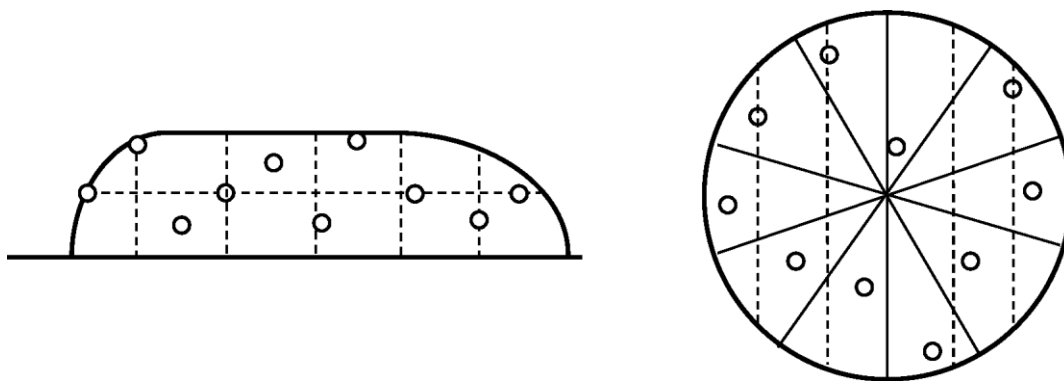
**(2) Other Waste (waste rice straw, waste compost, etc.)**

Sampling of specimens shall be made, considering the representativeness based on the objective and status of the source and specimens. An example of sampling of specimens is shown below.

- [1] For sampling of specimens, an increment scoop, etc., shall be used.
- [2] In case of piled specimens, sample from ten or more points mutually distant so as to ensure representativeness (refer to Figure 4-3). If the specimens are running on a conveyor, sample ten times or more by a certain interval while the survey unit is running. If the waste of the same survey unit is stored divided in multiple containers, select ten or more containers at random to ensure representativeness and sample specimens from one or more points of the selected containers.
- [3] After crushing the specimens as appropriate, put the specimens with about the same weight in a container (a plastic bag with a fastener is acceptable) and mix sufficiently.
- [4] Quantity of sampling of specimens for measurement shall be 500g ~ 1kg in total.



**Figure 4-2: Increment Scoop**



○ shows the sampling points

**Figure 4-3: Example of sampling points of piled specimens (in case of 10 points)**

**4.2.2 Measuring Method of Specimens**

It shall be in accordance with the Guidelines, “3. Survey on Pollution Status of Waste by Radioactive Materials Discharged by the Accident, 3.3.2 Measuring Method of Specimens.”

**4.3 Application for Designation (Act, Article 18, paragraph (2))**

Application (for the designated waste) under the Act, Article 18, paragraph (1) shall be made by submitting

the Form No. 3 describing the following matters.

- [1] Name or appellation and address and in case of a corporation, name of the representative
  - [2] Name, address and contact of the storage site of waste subject to a survey
  - [3] Kind and quantity of waste subject to a survey
  - [4] Date of sampling of specimens of the waste subject to a survey and the date the results of analysis of the specimens were obtained, the name or appellation of the analyzing person and any other matters concerning the survey results
- \* Documents and photos, which clarify the status of storage of waste subject to a survey, shall be attached. In addition, documents certifying the described survey results shall be attached (measurement results certificate, etc., issued by the outsourced company which was outsourced for measurement).

#### **4.3.1 Description Matters of Application Form for Designation**

The matters of note for application of the survey results and a description example, etc., are shown below.

##### **4.3.1.1 Quantity of Waste**

State the weight (t) or volume (m<sup>3</sup>) per survey unit and in case of storage in containers, the number of containers.

##### **4.3.1.2 Sampling Method of Specimens**

For the method for sampling specimens, method of classification of survey unit, apparatus used for sampling, kind of containers of sampling specimens, and preparation method of specimens (crushing and shredding, etc.) shall be described. It is desirable to describe in Exhibit the plan showing the points of sampling of specimens from the survey unit.

Summary shall be described in the Application Form and the details may be attached as separate materials.

##### **4.3.1.3 Analysis Method**

Measuring method, name of model of measuring apparatus, the lower limit of detection, etc., shall be described.

#### **4.3.2 Method of Submission of Application Form for Designation**

Application Form for Designation shall be submitted by mail or direct delivery to the Regional Environmental Office having jurisdiction over the address of the facility.

#### **4.3.3 Form of Application Form for Designation**

Form of Application Form (For No. 3 (Article 17 related)) and a description example are shown on the next page and thereafter.

#### **4.3.4 Documents attached to Application Form for Designation**

In the Application Form for Designation, photos of waste, documents and photos, which clarify the status of storage (storage site and storage method, etc.) shall be attached. In addition, documents certifying the described survey results shall be attached (measurement results certificate, etc., issued by the outsourced company which was outsourced for measurement).

##### **4.3.4.1 Examples of Description Content of Attached Documents**

- Storage Site: Indoor storage (warehouse and silo, etc.), storage in the vinyl greenhouse, outdoor storage (with roof, including tent, etc., agricultural land, parking lot, etc.)  
Space (m<sup>2</sup>), height (m)



- Storage Method: Packaged storage (blue tarp, net or wrapping by film, etc.)  
Container storage (sandbag, flexible container bag, drum can, etc.)

#### **4.3.4.2 Examples of Photos attached to Attached Documents**

- Photos identifying the kind and status of the waste  
Waste (close-up view, distant view)
- Photos showing the method of storage of waste, and rough amount stored  
Storage Site (close-up view, distant view), Storage Container (close-up view, distant view)

**Form No. 3** (Article 17 related)

(Front)

Application Form for Designation of the Waste Contaminated by Radioactive Materials  
Discharged by the Accident

Date:

To Minister of the Environment

From:

Name:

Address:

(For a corporation, business name and name of the representative)

Telephone Number:

We would like to have the waste designated under Article 17, paragraph (1), under Article 18, paragraph (1) of the “Ordinance for Enforcement of the Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District - Off the Pacific Ocean Earthquake that Occurred on March 11, 2011.”

[1]	Name, address and contact of the storage site of waste subject to a survey	
[2]	Kind of waste subject to a survey	
[3]	Quantity of waste subject to a survey	
[4]	Sampling method of specimens	
[5]	Date of sampling the specimens	
[6]	Analysis method of specimens	

(Japanese Industrial Standards, Column A-No.4)

(Back)

[7] Results of analysis of specimens	(Cesium-134) Bq/kg (Cesium-137) Bq/kg (Total) Bq/kg
[8] Date the results of analysis of specimens were obtained	
[9] Name or appellation of the person who conducted analysis of specimens	

Remarks

[1] Photos of the waste subject to a survey, [2] documents and photos clarifying the status of storage of waste shall be attached to the Application Form.

(Front)

Application Form for Designation of the Waste Contaminated by Radioactive Materials Discharged by the Accident	
Date: <i>February 27, 2012</i>	
To Minister of the Environment	
From:	
Name: <i>XXXXXX, Mayor of X City</i>	
Address: <i>XXXX</i>	
(For a corporation, business name and name of the representative)	
Telephone Number: <i>XXX-XXX-XXXX</i>	
We would like to have the waste designated under Article 17, paragraph (1), under Article 18, paragraph (1) of the “Ordinance for Enforcement of the Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials Discharged by the Nuclear Power Station Accident Associated with the Tohoku District - Off the Pacific Ocean Earthquake that Occurred on March 11, 2011.”	
[1] Name, address and contact of the storage site of waste subject to a survey	<i>Name: XXXX Address: XXX Contact (Tel): XXX</i>
[2] Kind of waste subject to a survey	<i>Waste rice straw</i>
[3] Quantity of waste subject to a survey	<i>Rolls (polyethylene film wrapping: 4 layers): 100 rolls Approximately 50t (500kg per roll), 100m<sup>3</sup></i>
[4] Sampling method of specimens	<i>10 rolls were sampled from the stored 100 rolls of waste rice straw, the survey unit. Approximately 100g was sampled from one point of each roll and the specimens of approximately 1kg were mixed sufficiently in a polyethylene bag of 45L. The points of sampling the specimens are as set forth in Exhibit.</i>
[5] Date of sampling the specimens	<i>February 15, 2012</i>
[6] Analysis method of specimens	<i>Germanium semiconductor detector <math>\Gamma</math>-ray spectrometry (Model: XXXX) Detection lower limit: 50 Bq/kg</i>

(Japanese Industrial Standards, Column A-No.4)

(Back)

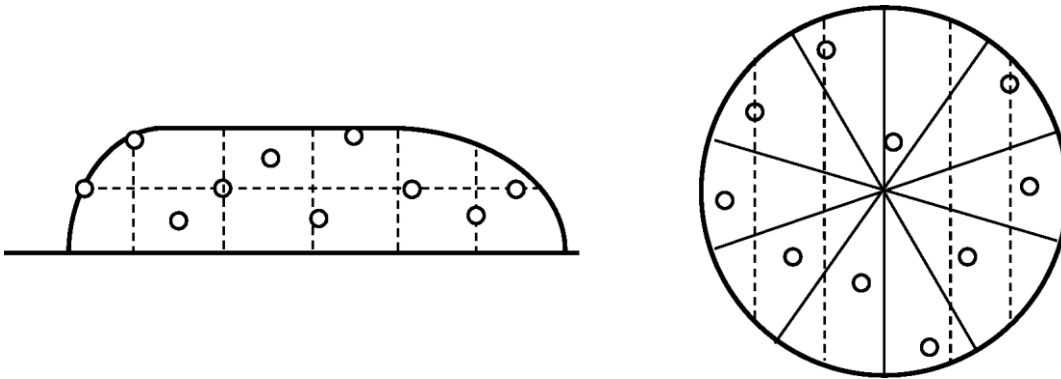
[7]	Results of analysis of specimens	(Cesium-134) 4,000Bq/kg (Cesium-137) 4,500Bq/kg (Total) 8,500Bq/kg
[8]	Date the results of analysis of specimens were obtained	February 20, 2012
[9]	Name or appellation of the person who conducted analysis of specimens	XXXX Corporation Person in charge of measurement: XXXX

Remarks

Photos of the waste subject to a survey, [2] documents and photos clarifying the status of storage of waste shall be attached to the Application Form.

**(Exhibit)**

**Sampling points of specimens for the survey were generally as follows.**



○ shows the sampling points.

**[For Each Regional Environmental Office]**

Office	Jurisdiction	Address	Section in charge	Tel/Fax Number
Hokkaido Regional Environmental Office	Hokkaido	3F, Sapporo No. 1 Joint Gov. Bldg, 2-chome, Kita 8-jo Nishi, Kita-ku, Sapporo-shi (ZIP) 060-0808	Environmental Management Section	TEL: 011-299-1952 FAX: 011-736-1234
Tohoku Regional Environmental Office	Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima	6F, Sendai No. 2 Joint Gov. Bldg., 3-2-23, Honcho, Aoba-ku, Sendai-shi (ZIP) 980-0014	Waste and Recycling Measures Section	TEL: 022-722-2871 FAX: 022-724-4311  Dedicated Line: 022 – 212 – 5411
Kanto Regional Environmental Office	Ibaraki, Tochigi, Gunma, Saitama, Chiba, Tokyo, Kanagawa, Niigata, Yamanashi, Shizuoka	18F, Meiji Yasuda Life Insurance Saitama Shintoshin Bldg. 11-2 Shintoshin, Chuo-ku, Saitama-shi (ZIP) 330-6018	Waste and Recycling Measures Section	TEL: 048-600-0814 FAX: 048-600-0517  Dedicated Line: 048-600-0540
Chubu Regional Environmental Office	Toyama, Ishikawa, Fukui, Nagano, Gifu, Aichi, Mie	2-5-2 Sannomaru, Naka-ku, Nagoya-shi (ZIP) 460-0001	Waste and Recycling Measures Section	TEL: 052-955-2132 FAX: 052-951-8889
Kinki Regional Environmental Office	Shiga, Kyoto, Osaka, Hyogo, Nara, Wakayama	8F, Osaka Merchandise Mart Bldg., 1-7-31 Otemae, Chuo-ku, Osaka-shi (ZIP) 540-6591	Waste and Recycling Measures Section	TEL: 06-4792-0702 FAX: 06-4790-2800
Chugoku-Shikoku Regional Environmental Office	Tottori, Shimane, Okayama, Hiroshima,	4F, Meiji Yasuda Life Insurance Okayama-Kuwadacho Bldg., 18-28 Kuwadacho, Kita-ku, Okayama-shi (ZIP) 700-0984	Waste and Recycling Measures Section	TEL: 086-223-1584 FAX: 086-224-2081

	Yamaguchi, Tokushima, Kagawa, Ehime, Kochi			
Kyushu Regional Environmental Office	Fukuoka, Saga, Nagasaki, Kumamoto, Oita, Miyazaki, Kagoshima, Okinawa	1-6-22 Onoue, Higashi-ku, Kumamoto-shi (ZIP) 862-0913	Waste and Recycling Measures Section	TEL: 096-214-0328 FAX: 096-214-0354