

ICS 13.030.50

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# National Standards of the People's Republic of China

GB 16487.2—2017

Replace GB 16487.2—2005

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## 进口可用作原料的固体废物环境保护控制 标准—冶炼渣

## Environmental Protection Control Standard for Imported Solid Wastes as Raw Materials—Smelt Slag

(Published Version)

This E-version is a published version. Please use the version published by  
China Environmental Science Press as the final version of the standard.

Issued on 12-29-2017

Effective on 03-01-2018

Issued  
by

**Ministry of Environmental Protection  
and  
General Administration of Quality  
Supervision, Inspection and Quarantine  
of the People's Republic of China**

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## Foreword

In order to implement the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes*, the *Law of the People's Republic of China on the Prevention and Control of Radioactive Pollution* and other applicable laws and regulations, strictly restrict the import of solid wastes, and control the environmental pollution caused by imported smelt slag as raw material, this standard is hereby formulated.

This standard specifies the environmental protection control requirements for imported smelt slag.

As one of a series of environmental protection control standards for imported solid wastes, this standard shall be applicable to the administration of import of the smelt slag included in the Catalogue of Imported Solid Wastes as Raw Materials.

This standard was first issued in 1996 and first amended in 2005, and it is hereby amended for a second time.

It is hereby amended mainly in the following aspects:

- Requirement on external exposure penetrating radiation dose for imported smelt slag was added;
- Control requirement for hazardous wastes was adjusted;
- Control requirement for regular carried-wastes was tightened; and
- Requirements on inspection were revised.

*Environmental Protection Control Standard for Imported Solid Wastes as Raw Materials – Smelt Slag* (GB 16487.2-2005) shall be abolished as of the effective date of this standard.

This standard was amended under the direction of the Department of Environmental Management of Soil and the Department of Science and Technology Standards of the Ministry of Environmental Protection.

Primary drafting organization for this standard: Chinese Research Academy of Environmental Sciences.

This standard was approved by the Ministry of Environmental Protection on 12/29/2017.

This standard shall come into full force and effect on 03/01/2018.

This standard shall be interpreted by the Ministry of Environmental Protection.

# Environmental Protection Control Standard for Imported Solid Wastes as Raw Materials – Smelt Slag

## 1. Scope of Application

This standard hereby sets forth the environmental protection control requirements for imported smelt slag.

This standard shall be applicable to the administration of import of the smelt slag described below.

HS Code	Name of Solid Waste
2618001001	Manganese-containing granular slag generated during smelting of steel and iron, with a manganese content greater than 25% (including slag sand)
2619000010	Oxide scale generated during steel rolling
2619000030	Steel and iron residue generated during smelting of steel and iron, with an iron content greater than 80%

## 2. Cited Normative Documents

The provisions of the following documents are cited in this standard. In case of any undated citation, the effective version of such cited normative document shall be applicable to this standard.

GB 5085.1	Identification Standards for Hazardous Wastes	Identification of corrosivity
GB 5085.2	Identification Standards for Hazardous Wastes	Screening test for acute toxicity
GB 5085.3	Identification Standards for Hazardous Wastes	Identification of leaching toxicity
GB 5085.4	Identification Standards for Hazardous Wastes	Identification of flammability
GB 5085.5	Identification Standards for Hazardous Wastes	Identification of reactivity
GB 5085.6	Identification Standards for Hazardous Wastes	Identification for toxic substance content
SN/T 0570	Inspection Procedures for Radioactive Contamination of Imported Wastes as Raw Materials	
SN/T 1791.10	Inspection and Quarantine Procedures for Imported Wastes as Raw Materials – Part 10: Smelt Slag	

*National Catalogue of Hazardous Wastes* (Order No. 39 issued by Ministry of Environmental Protection, National Development and Reform Commission, and Ministry of Public Security)

## 3. Terms and Definitions

For purpose of this standard, the following terms and definitions shall apply.

### 3.1 Carried-waste

Foreign substances introduced into imported smelt slag during production, collection, packaging and transportation (excluding packing materials for the imported smelt slag and other substances that need to be used during the transportation process).

## 4. Control Standards and Requirements

### 4.1 To control radioactive contamination induced by imported smelt slag, the following requirements shall be met:

- The smelt slag shall not contain any radioactive wastes;

- b) The external exposure penetrating radiation dose rate for the smelt slag (including packing material) shall be no more than  $+0.25\mu\text{Gy/h}$  greater than the normal natural background radiation level at the place where the port of import is located;
- c)  $\alpha$ -ray and  $\beta$ -ray radioactive contamination levels on the surface of the smelt slag shall be as follows: the average value of maximum detected level in any portion of  $300\text{cm}^2$  on the surface shall not exceed  $0.04\text{Bq/cm}^2$  for  $\alpha$ -ray and  $0.4\text{Bq/cm}^2$  for  $\beta$ -ray; and
- d) The specific activity of radioactive nuclide in the smelt slag shall be less than the threshold values specified in Table 1 below.

**Table 1 Threshold Values of Specific Activity of Radioactive Nuclide**

Nuclide	Specific Activity (Bq/g)
$^{59}\text{Ni}$	$3 \times 10^3$
$^{63}\text{Ni}$	$3 \times 10^3$
$^{54}\text{Mn}$	0.3
$^{60}\text{Co}$	0.3
$^{65}\text{Zn}$	0.3
$^{55}\text{Fe}$	300
$^{90}\text{Sr}$	3
$^{134}\text{Cs}$	0.3
$^{137}\text{Cs}$	0.3
$^{235}\text{U}$	0.3
$^{238}\text{U}$	0.3
$^{239}\text{Pu}$	0.1
$^{241}\text{Am}$	0.3
$^{152}\text{Eu}$	0.3
$^{154}\text{Eu}$	0.3
$^{94}\text{Nb}$	0.3
$\beta$ - $\gamma$ mixture with unknown components	0.3
$\alpha$ mixture with unknown components	0.1

- 4.2 Smelt slag shall not contain any explosive arms or ammunitions, such as discarded bombs and shells.
- 4.3 The total weight of the following carried-wastes in smelt slag shall be strictly restricted to a level not greater than 0.01% of the weight of the imported smelt slag.
  - a) Sealed container;
  - b) Wastes listed in the *National Catalogue of Hazardous Wastes*; and
  - c) Other hazardous wastes with one or more hazardous characteristics including corrosivity, toxicity, flammability and reactivity as identified according to the identification standards of GB5085.1-GB5085.6.
- 4.4 In addition to the wastes listed above, the total weight of other carried-wastes (including wood waste, waste paper, waste plastic, waste rubber and waste glass) in smelt slag shall be restricted to a level not greater than 0.5% of the weight of the imported smelt slag.

## 5 Inspection

- 5.1 Inspection under this standard shall be carried out by random sampling, where opening, devanning,

unpacking/unbaling and sorting shall be carried out for the inspection of imported wastes shipped in containers, open-cabin inspection and arrival inspection shall be carried out for the inspection of imported wastes shipped in bulk by sea, and open-box inspection and arrival inspection shall be carried out for the inspection of imported wastes shipped in bulk by land, which shall be sent to labs for tests when necessary (including specific activity of radioactive nuclide and hazardous characteristics). The results of inspection by random sampling shall serve as the results of the inspection of the whole shipment.

- 5.2 Inspection under Section 4.1 hereof shall be performed in accordance with the provisions of SN/T 0570.
- 5.3 Inspection under Section 4.3(c) hereof shall be performed according to the methodologies provided in GB 5085.1-GB 5085.6.
- 5.4 Inspection under other sections hereof shall be performed in accordance with the provisions of SN/T 1791.10.