

ICS 13.030.50
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National Standards of the People's Republic
of China

GB 16487.11—2017

Replace GB 16487.11—2005

Environmental Protection Control Standard
for Imported Solid Wastes as Raw
Materials—Vessels and Other Floating
Structures for Breaking Up

(Version for Release)

This is the version released electronically, subject to the formal version of the standards published by China
Environmental Science Press.

Issued on 12-29-2017

Effective as of 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**

Table of Contents

Foreword	II
1. Scope of Application	1
2. Cited Normative Documents	1
3. Terms and Definitions	1
4. Control Standards and Requirements	2
5. Inspection	3

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, and control the environmental pollution caused by imported vessels and other floating structures for breaking up, this standard is hereby formulated.

This standard specifies the environmental protection control requirements for imported scrap vessels.

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 scrap vessels 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 scrap vessels was added;
- Control requirement for hazardous wastes was adjusted; and
- Requirements on inspection were revised.

Environmental Protection Control Standard for Imported Solid Wastes as Raw Materials – Vessels and Other Floating Structures for Breaking Up (GB 16487.11-2005) shall be abolished as of the effective date of this standard.

This standard was amended under the direction of the Department of Soil Environment Management and the Department of Science, Technology and 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 December 29, 2017.

This standard shall come into full force and effect on March 1, 2018.

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

Environmental Protection Control Standard for Imported Solid Wastes as Raw Materials –Vessels and Other Floating Structures for Breaking Up

1. Scope of Application

This standard hereby sets forth the environmental protection control requirements for imported vessels and other floating structures for breaking up (“Scrap Vessels”).

This standard shall be applicable to the administration of import of the Scrap Vessels described below.

HS Code	Name of Solid Waste
8908000000	Scrap vessels (excluding aircraft carrier)

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 3552	Effluent standards for pollutants from ships	
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 1791.5	Inspection and Quarantine Procedures for Imported Wastes as Raw Materials – Part 5: Vessels and Other Floating Structures for Breaking Up	

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

Catalog of Hazardous Chemicals (Announcement No. 5 in 2015 issued by State Administration of Work Safety, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Environmental Protection, Ministry of Transport, Ministry of Agriculture, National Health and Family Planning Commission, General Administration of Quality Supervision, Inspection and Quarantine, National Railway Administration, and Civil Aviation Administration)

3. Terms and Definitions

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

3.1 Carried-waste

Domestic wastes generated by the crew onboard and cargo residue in imported Scrap Vessels. Articles to be used during the voyage as well as cargo and its residue in shipwreck are excluded.

3.2 Light tonnage

Light tonnage shall refer to the water displacement of an unloaded ship and is the measurement unit for the weight of the ship.

3.3 Hazardous chemical substance

Chemical substances listed in the *Catalogue of Hazardous Chemicals* issued by relevant authorities of the People's Republic of China.

4 Control Standards and Requirements

4.1 To control radioactive contamination induced by imported Scrap Vessels, the following requirements shall be met:

- a) The Scrap Vessels shall not contain any radioactive wastes;
- b) The external exposure penetrating radiation dose rate for the Scrap Vessels 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) α -ray and β -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 300cm^2 on the surface shall not exceed 0.04Bq/cm^2 for α -ray and 0.4Bq/cm^2 for β -ray; and
- d) The specific activity of radioactive nuclide in the Scrap Vessels 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}Ni	3×10^3
^{63}Ni	3×10^3
^{54}Mn	0.3
^{60}Co	0.3
^{65}Zn	0.3
^{55}Fe	300
^{90}Sr	3
^{134}Cs	0.3
^{137}Cs	0.3
^{235}U	0.3
^{238}U	0.3
^{239}Pu	0.1
^{241}Am	0.3
^{152}Eu	0.3
^{154}Eu	0.3
^{94}Nb	0.3
β - γ mixture with unknown components	0.3
α mixture with unknown components	0.1

4.2 Scrap Vessels shall not contain any explosive arms or ammunitions, such as discarded bombs and shells.

4.3 Imported Scrap Vessels shall not include any scrap oil vessel whose cabin is not cleaned.

4.4 The total weight of the following carried-wastes in Scrap Vessels shall be strictly restricted to a level not greater than 0.01% of the light tonnage of the imported Scrap Vessels.

- a) Asbestos waste or asbestos-containing wastes (excluding thermally and electrically insulating asbestos material contained in the vessel);
 - b) Residual oil and oil sludge in cargo hold of the scrap ship;
 - c) Sealed container (excluding containers contained in the vessel);
 - d) Wastes listed in the *National Catalogue of Hazardous Wastes*; and
 - e) 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.
- 4.5 The content of asbestos used as the thermally and electrically insulating material of the vessel shall not exceed 0.08% of the light tonnage of the Scrap Vessel.
- 4.6 In addition to the carried-wastes listed above, the total weight of other carried-wastes in a Scrap Vessel imported by way of tugboat transportation shall not exceed 0.05% of the light tonnage of the Scrap Vessel.
- 4.7 In addition to carried-wastes listed above, the total weight (W_{waste}) of other carried-wastes in a Scrap Vessel imported by way of autonomous sailing shall satisfy the following formula:

$$W_{\text{waste}} \leq 1.5TN$$

Wherein: W_{waste} – Total weight of other carried wastes in the vessel, kg;

T – berthing time of the vessel at the port, d;

N – number of crew aboard the vessel, person;

1.5 – factor, kg/person.d

- 4.8 Special-purpose vessels that have carried cargos listed in Section 4.4 and other hazardous chemicals must be cleaned. The importer should report the names and main components of the substances listed in Section 4.4 and other hazardous chemicals carried by the vessel to the inspection authorities.
- 4.9 Pollutants discharge from Scrap Vessels shall meet the standards of GB3552.

5 Inspection

- 5.1 Inspection under Section 4.1 hereof shall be performed in accordance with the provisions of SN/T 0570.
- 5.2 Inspection under Section 4.4(e) hereof shall be performed according to the methodologies provided in GB 5085.1-GB 5085.6.
- 5.3 Inspection under other sections hereof shall be performed in accordance with the provisions of SN/T 1791.5.