

ICS 47.020
CCS U17



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 30979-2014

**Assessment procedure for marine dumping of inert inorganic
geological material**

海洋倾倒物质评价规范 惰性无机地质材料

Issued on: July 24, 2014

Implemented on: June 1, 2015

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

The standard Chapter 4,

5.3 are mandatory, the rest are recommended. This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard was proposed by the State Oceanic Administration. This standard by the National Standardization Technical Commission for Oceanography (SAC/TC283) centralized. This standard was drafted. National Marine Environmental Monitoring Center, State Oceanic Administration, Marine Consulting Center. The main drafters of this standard. Han Geng Chen, Xu Lina, Wangju Ying, Chen Hong, Han Jianbo, Li Jun, Hu Yingying. Ocean dumping substances Assessment Protocol Inert inorganic geological material

1 Scope

GB 30979-2014 is the Chinese national standard on assessment procedure for marine dumping of inert inorganic geological material, in the field of shipbuilding and marine structures. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 24 July 2014 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2015. Classification: ICS 47.020, CCS U17. This page is published from the official record of the

standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

6 reporting format

Refer to Appendix B, the preparation of "inert inorganic geological materials dumping test evaluation reports." Refer to Appendix C, fill out the "inert inorganic geological material ocean dumping application form."

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 12763.8 specification for oceanographic survey - Part 8. Marine Geology Geophysical Survey

GB/T 14583-1993 Environmental surface gamma radiation dose rate measurement specification

GB/T 17139-1997 Soil quality - Determination of nickel by flame atomic absorption spectrophotometry

GB 17378.2 specification for marine monitoring Part 2. Data processing and quality control analysis

GB 17378.3 specification for marine monitoring Part 3. Sample collection, storage and transportation

GB 17378.5 specification for marine monitoring Part 5. Sediment analysis

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Inorganic geological material inorganicgeologicalmaterial Geological material from the solid mineral mining process separated from the mining and construction projects out from the surface and underground or from the mountain, Reef separated from the rock material.

3.2 Inert inorganic geological material inertinorganicgeologicalmaterial Pollution and low organic matter content, not with the surrounding environment after the dumping of significant chemical reactions inorganic geological material is not subject to.

Note. Does not include high levels of heavy metals, inorganic geological background material, as well as dredged material, drilling fluids and slurries.

3.3 Dumping area background values dump-sitebackgroundvalues Dumping sites to be selected before the waste is not dumped, and not by the absence of other pollution and destruction of the marine environment of the basic chemical elements of group Into content. Evaluation limit 4 inert inorganic geological material Evaluation limits inert inorganic geological material as shown in Table 1. Table

1 Evaluation limits inert inorganic geological material No. Item (unit) Evaluation Limits

1 Appearance natural structure, no industrial, domestic waste, no large-scale plant debris and animal carcasses, etc. 2 color, smell no different color, odor

Component content of less than 4 μ m particle size of less than 5%, ranging between 63 μ m and 4 μ m The particle size of component content of not more than 20%

5.2 Analysis of samples

5.2.1 measurement item Determination of the sample project is divided into three categories, namely.

--- Physical indicators. appearance, color, smell, size;

--- Chemical indicators. mercury, cadmium, lead, zinc, copper, chromium, arsenic, nickel, organic carbon, BHC and total DDT and PCBs;

--- Radioactive indicators. gamma radiation dose rate. Among them, the appearance, color, smell, size, mercury, cadmium, lead, zinc, copper, chromium, arsenic, organic carbon and gamma radiation dose rate must be measured; nickel, BHC The total DDT and PCBs for the selected test items. Historical Area and surrounding environment of inert inorganic geological material for analysis, if Have been BHC and DDT, total PCBs and other organic halides, petroleum and cyanide contamination and other potential projects deal The above items for testing. Observation items listed in Table 1 rating limits to dumping sedimentary environmental background values prevail.

5.2.2 Determination Determination of sample analysis according to the method of execution specified in Table 2. Table

2 Detection inert inorganic geological material No. Item Detection method detection limits (units) Reference Standard

7 Zinc (x 10⁻⁶, dry weight) ≤150.0

8 Copper (x 10⁻⁶, dry weight) ≤35.0 9 chromium (x 10⁻⁶, dry weight) ≤80.0 10 arsenic (x 10⁻⁶, dry weight) ≤20.0

11 Nickel (x 10⁻⁶, dry weight) ≤40.0 12 organic carbon (x 10⁻², dry weight) ≤2.0 13 BHC (x 10⁻⁶, dry weight) ≤0.05 14 DDT (x 10⁻⁶, dry weight) ≤0.02

15 Total PCBs (x 10⁻⁶, dry weight) ≤0.02

16 Kd (gamma) is not greater than background values in sedimentary dumping area

5 inert inorganic geological material evaluation requirements ocean dumping

Sample collection and preparation

5.1 Collection and sample preparation, implementation of the method in accordance with Appendix A may require.

Appendix A

(Normative) Collection and preparation of an inert inorganic geological material samples

A.1 Sampling A.1.1 brief sampling program Brief sampling procedure comprising.

--- Conduct background checks and site survey;

--- Learn proposed dumping of inert inorganic geological material source, process and storage methods produce;

--- Determine the proposed dumping of inert inorganic geological material batch; NOTE. Batch means a group intended to constitute dumping by weight of inert inorganic geological material.

--- Determine the sampling method and sample parts number;

--- Determine the sampling point or sampling site;

--- Select the sampling tool. A.1.2 Sample Tools Sampling tools include.

--- Sampling shovel;

--- Cores sampler. A.1.3 Sampling Method A.1.3.1 inert inorganic geological materials engineering construction before sampling We will monitor the area into an area equal parts (meshing), a layout grid within each sampling point. An area of 100 hectares per laid not Less than five and no less than five the total number of sampling points. The number of sampling points columnar sample set (Table A.1) based on the batch size, volume To 10,000 tons each additional 10,000 tons, it should be added to a core collected samples. Surface sampling depth 0m ~ 0.2m. When the construction project is not greater than the depth of 1m, each sample cores from a depth of 1m, dispensing Sample three parts. the surface like 0m ~ 0.2m, middle kind 0.2m ~ 0.6m, deep kind 0.6m ~ 1m. Points (layers) take 1kg sample is contained Into the sample bags or vials. Table A.1 minimum batch size and the number of Cores Batch size Less than or equal to 500 greater than 500, greater than 10,000 and not more than 10,000 The minimum number of samples 135 column When the construction of the project is greater than the depth of 1m, the total depth of sampling should generally be the same as the total depth of the construction project, the sampling