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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 17378.5-2007

The specification for marine monitoring - Part 5: Sediment analysis

海洋监测规范 第5部分: 沉积物分析

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Table of Contents

Foreword

All technical content in this section is mandatory. GB 17378 "marine monitoring" is divided into seven parts.

--- Part 1. General;

--- Part 2. Data processing and analysis of quality control;

--- Part 3. Sample collection, storage and transport;

--- Part 4. Seawater analysis;

--- Part 5. Sediment analysis;

--- Part 6. Analysis of the organism;

--- Part 7. Ecological survey of offshore pollution and biological monitoring. This section GB 17378 Part 5, instead of GB 17378.5-1998 "specification for marine monitoring Part 5. Sediment analysis." This section compared with GB 17378.5-1998 main changes are as follows:

--- Determination "project, and the method detection limit" to "informative appendix" (1998 edition Chapter 5; this edition of Appendix B);

--- Increasing the overall mercury "Atomic Fluorescence Spectrometry" (see 5.1);

--- Cancel the total mercury "dithizone spectrophotometry" (1998 version 6.2);

--- Increased arsenic "atomic fluorescence assay" (see 11.1);

--- Modified flameless atomic copper, lead and cadmium absorption spectrophotometry, adjusted to "copper, lead and cadmium continuous assay" (1998 version 7.1,8.1,9.1; this version 6.1,7.1,8.1);

--- Modified flame atomic copper, lead and cadmium absorption spectrophotometry, adjusted to "copper, lead and cadmium continuous assay" (1998 version 7.2,8.2,9.2; edition the 6.2,7.2,8.2);

1 Scope

GB 17378.5-2007 is the Chinese national standard on the specification for marine monitoring - part 5: sediment analysis, in the field of natural and applied sciences. 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 18 October 2007 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 May 2008. Classification: ICS 07.060, CCS A45. 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.

GB 17378 of the provisions of this part of the analysis of marine sediment monitoring programs, sample collection, storage, transport, pretreatment, measurement results and computing technical requirements. This section applies to ocean, coastal, estuary, harbor sediment surveys and monitoring, but also for investigation and monitoring of coastal waters, bays, estuaries and dumping of dredged material objects.

2 Normative references

The following documents contain provisions which, through reference in this Part of

GB 17378, constitute provisions of this part. For dated references, All subsequent amendments (not including errata content) or revisions do not apply to this section, however, Encouraged to whether the latest versions of these files according to the parties that this part of agreement. For undated reference documents, the latest versions apply to this section.

GB/T 12763.8 oceanographic survey - Marine Geological Geophysical Survey

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

3 Terms and Definitions

The following terms and definitions apply to this part of GB 17378.

3.1 Metering vessel volume mark.

3.2 After evaporation of the solvent container, no white smoke when placed at room temperature.

4 General Provisions

4.1 collect sample pretreatment, preparation and preservation Sample collection, pre-processing, preparation and storage, see GB 17378.3, the specific content and methods of implementation of the following requirements.

4.1.1 collect samples

4.1.1.1 Equipment and tools Sampling equipment and tools used are as follows:

--- Like disk access or access model. made of hardwood or polyethylene sheet;

--- Sample box, vial (125mL, 500mL grinding mouth jars) and polyethylene bags;

--- Plastic knives, spoons;

--- Beaker. 50mL, 100mL;

--- Other. record forms, labels plastic cards, pencils, markers, steel tape, rubber bands, work diary.

4.1.1.2 Analysis of samples taken 4.1.1.2.1 surface sediment samples taken Surface sediment samples taken according to the following steps.

--- With a plastic knife or spoon borrow devices from ear cover carefully take the upper part of 0cm ~ 1cm and 1cm ~ 2cm deposits, representing the surface and subsurface. In case of gravel can be mixed within the sample 0cm ~ 3cm layer;

--- Under normal circumstances, each depicting parts of 3 to 4 parts by analysis of samples, depending on the amount of sample analysis project may be. Such as a lack of sample volume, should be taken once;

--- Sediment samples were taken after collection, quickly charged 100mL beaker (about half a cup, and strive to maintain the status quo samples, to avoid air entering) for field measurement with redox potential (also can be directly measured in the dredging vessel);

--- Taking about 5g fresh wet sample, flourished in 50mL beaker for field measurement sulfide (ion selective electrode method). If colorimetric determination of sulfide or by iodometry Then take 20g ~ 30g fresh wet sample, flourished in 125mL grinding mouth jar plugged after nitrogen filling plug grinding mouth;

--- Take 500g ~ 600g wet sample, has been washed into a polyethylene bag, tie the bag. For the determination of copper, lead, cadmium, zinc, chromium, arsenic and selenium use;

4.1.3 Analysis Preparation step of preparing a sample for analysis of samples

4.1.3.1 Determination of heavy metals (copper, lead, cadmium, zinc, chromium, arsenic and selenium) are as follows: