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

GB 17378.3-2007

**The specification for marine monitoring Part 3: Sample
collection, storage and transportation**

海洋监测规范 第3部分:样品采集、贮存与运输

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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 Part of 317,378, instead of GB 17378.3-1998 "marine monitoring Part 3. Sample collection, storage Store and transport. " This section compared with GB 17378.3-1998 main changes are as follows:
- Unset (Chapter 2 of the 1998 edition);
- Increased General (see Chapter 3);
- In the layout of sampling stations, laid on the principle made supplementary provisions, it requires increased monitoring section (1998 version 3.2.1; this Version 4.5.1 and 4.5.2);
- Increased sampling and sampling of the special quality control sample content (see
- In the sediment samples collected on the surface of the sample collection made supplementary provisions; adds laid sampling purposes, the sampling stations, Monitoring time and frequency, sample storage containers, collected samples relevant provisions of the quality assurance and quality control (first edition 1998 4; 5.1,5.2,5.3,5.4.2,

1 Scope

Part 3 of China's mandatory specification for marine monitoring, covering sample collection, storage and transport. Everything downstream depends on this part, and it is where marine data is most often lost: an analysis performed perfectly on a sample that was contaminated at collection or that changed on the way to the laboratory produces a precise wrong answer. The requirements are specific to the medium. Seawater samples for trace metals must never touch metal, which governs the sampler, the bottle and the person's gloves; samples for organics must not touch plastic; dissolved oxygen and nutrients change within hours and must be fixed or filtered on deck. The part specifies the sampling equipment and its cleaning, the depths and the procedure, the containers and their preparation, the preservation for each parameter, the holding times, and the labelling and chain of custody.

GB 17378 of the provisions of this part of the ocean monitoring process, the basic methods and procedures for sample collection, storage and transport. This section applies to the marine environment, water quality, sediment, biological sample collection, storage, transport, but also for marine waste dumping and dredging Jun was poured in water quality,

sediment, biological sample collection, storage and transport.

2 Normative references

The following documents contain provisions which, through reference in this Part of GB 17378, constitute provisions of this part. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

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

GB 17378.4 specification for marine monitoring Part 4. Seawater Analysis

GB 17378.5 specification for marine monitoring Part 5. Sediment analysis

3 General

3.1 Representative sampling Purports to collect a representative sample should be well-designed sampling section sampling stations to monitor waters, sampling time, sampling frequency and sample The number of products, so that the data samples were analyzed objectively characterize the real situation of the marine environment, to ensure that the sampled product not only represents the original environment, and And should not change in the sampling process, not add, not losses.

3.2 Sampling target Sampling goal is to collect easy to transport, easy to handle laboratory, the samples can be characterized overall environment. Take practical measures to make the sample Its in the marine environment is the same ratios and concentrations of the relevant component, the component does not change before laboratory analysis, sampling of the same holding status.

3.3 Sampling Program Sampling plan is an important part of the monitoring plan. Generally they include.

- Where and how the samples;
- Sampling equipment and calibration;
- Sample container, including cleaning, fixing agent;
- Scotia take samples;
- Sample pretreatment procedures;
- Decimation procedures;

- Sample record;
- Sample storage and transportation;
- Quality assurance and quality control measures.

3.4 Sample Program In designing the sampling program, first determine the purpose and principles of sampling, sampling purpose is to determine the sampling locations, sampling frequency, sampling time, like The main basis for the sampling and analysis procedures for processing of technical requirements include.

- Determine sampling purposes and principles;

4 Water Samples

4.1 General provisions Obtain a representative sample from the marine environment, and to take all precautions to avoid transition occurs during the time interval sampling and analysis Technology, is the first key to the investigation and monitoring of the marine environment. Sampling program should include the following aspects.

- Sample Objective. the purpose of the sampling is usually divided into environmental quality control, environmental quality characterization and identification of three types of pollution;
- Sample collection time and space scales;
- Set of sampling points;
- Field sampling methods and quality assurance measures.

4.2 Safety Measures Sample collection should take the following safety measures.

- Sampling in all weather conditions, should ensure the safety of operating personnel and equipment;
- Over a large area of water sampling, the operator should wear a seatbelt, ready life buoy, all kinds of equipment should be securely fastened to take Measures;
- Before the ice-covered bodies of water samples should carefully check the location and extent of ice;
- Surveillance ship in waters all sampling to prevent merchant ships, fishing boats and other vessels close and be ready to use a variety of signals indicate is Nature of the work;
- Avoid dangerous shore sampling and other unsafe locations. If unavoidable, not a single person, a group of people can be sampled and Take corresponding measures. If qualified, should be sampled at the bridges, docks and other safe locations. Sampling installed on the shore or in shallow waters Equipment, protective measures should be taken;
- Sampling, should take special precautions to avoid some fortuitous circumstances arise,