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

HJ 442.6-2020

Replacing HJ 442-2008

**Technical specifications for environmental monitoring in
coastal waters - Part 6: Biological monitoring in coastal waters**

近岸海域环境监测技术规范 第六部分 近岸海域生物监测

(English Translation)

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Foreword

To implement the Environmental Protection Law of the People's Republic of China, the Marine Environmental Protection Law of the People's Republic of China, and the "Regulations on the Administration of the Prevention and Control of Land-Source Pollutants Pollution and Damage to the Marine Environment" of the People's Republic of China "Regulations on the Management of Pollution Damage to the Marine Environment" and the "Administrative Measures for Environmental Functional Zones in Coastal Sea Areas" to regulate the ecological environment of coastal sea areas Quality monitoring, protecting the ecological environment, and ensuring the scientificity, accuracy, systematicness and comparability of the national coastal waters environmental monitoring and representativeness, formulate this standard.

This standard was first published in 2008. The original standard drafting unit was China Environmental Monitoring Station and Zhoushan Marine Biotechnology Environmental Monitoring Station. This is the first revision. The revised standard consists of the following ten parts.

Part One General Provisions Part Two. Data Processing and Information Management Part III Water Quality Monitoring of Inshore Waters Part Four. Monitoring of Sediment in Coastal Seas Part V Monitoring of Biological Quality in Coastal Waters Part VI Biological Monitoring in Inshore Waters Part VII Monitoring of rivers entering the sea Part 8: Monitoring of Direct Discharge of Sea Pollution Sources and Impact on the Water Environment of Inshore Waters Part IX Emergency and Special Monitoring in Coastal Waters Part 10 Evaluation and Report this standard is the sixth part of the revised standard. The revision is mainly aimed at the sampling of samples for biological monitoring in coastal waters in the original

standard.

The methods and procedures of collection, preservation, transportation, laboratory analysis and quality control are mainly revised in the following aspects.

--Regulate the monitoring content in accordance with routine monitoring items and other monitoring items;

--Add content to determine the detection limit of chlorophyll a;

--The qualitative and quantitative sampling of macrobenthos is used to replace the original on-bottom and in-bottom biological sampling.

From the date of implementation of this standard, the "Environmental Monitoring Specifications for Coastal Sea Areas" (HJ 442-2008) shall be abolished.

This standard was formulated by the Department of Ecological Environment Monitoring and the Department of Regulations and Standards of the Ministry of Ecology and Environment.

Drafting organizations of this standard. China Environmental Monitoring Station, Zhoushan Marine Ecological Environmental Monitoring Station of Zhejiang Province, Tianjin Ecological Environmental Monitoring Center, Dalian Ecological Environmental Monitoring Center of Liaoning Province.

This standard was approved by the Ministry of Ecology and Environment on December 16, 2020.

This standard will be implemented on March 1, 2021.

This standard is interpreted by the Ministry of Ecology and Environment.

1 Technical specifications for environmental monitoring in coastal waters

Part VI Biological Monitoring in Inshore Waters

1 Scope of application this standard specifies the technical requirements for sample collection, storage, transportation, analysis, and quality control for biological monitoring in coastal waters.

This standard applies to biological monitoring in coastal waters.

2 Normative references

The content of this standard refers to the terms in the following documents. For undated references, the effective version is applicable to this standard.

GB 17378.7 Marine Monitoring Specification Part 7: Offshore Pollution Ecological Investigation and Biological Monitoring GB/T 17826 Marine life classification code HJ 168

Technical Guidelines for the Preparation and Revision of Environmental Monitoring and Analysis Methods HJ 442.1 The general rules of the first part of the technical specifications for environmental monitoring in coastal waters HJ 442.2 Technical Specification for Environmental Monitoring in Coastal Seas Part 2 Data Processing and Information Management HJ 442.3 Technical Specifications for Environmental Monitoring in Coastal Seas Part 3 Water Quality Monitoring in Coastal Seas HJ 442.10 Technical Specifications for Environmental Monitoring in Coastal Seas Part Ten Evaluation and Report HJ 730 Technical Specification for Layout of Environmental Monitoring Points in Coastal Waters HY/T 147.5 Technical Regulations for Marine Monitoring Part 5: Marine Ecology

3 Terms and definitions

The following terms and definitions apply to this standard.

Biological monitoring Periodic and fixed-point (regional) analysis and determination of biological individuals, populations or communities caused by environmental pollution or changes the environmental monitoring category that clarifies the environmental pollution situation.

Phytoplankton

It is a kind of autotrophic plankton, mostly single-celled plants, with chlorophyll or other pigment bodies, which can absorb light energy and Carbon dioxide conducts photosynthesis and makes organisms (mainly carbohydrates) by itself. Mainly include diatoms, dinoflagellate, green Algae, cyanobacteria, golden algae, xanthellae and algae spores, etc., they are the main producers of waters.

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Zooplankton Small animals that live in the water layer and move passively are collectively called zooplankton. Including planktonic protozoa, coelenterate, Pteropods and heteropods of molluscs, crustaceans, chaetognaths, tunicates, planktonic larvae and other phyla Individual floating types, etc. According to individual size, it can be divided into giant zooplankton, large zooplankton, medium and small zooplankton and miniature zooplankton.

Zooplankton. The large zooplankton and medium and small zooplankton in this standard refer to the use of GB 17378.7 shallow water I and II respectively Zooplankton collected by the type plankton net.

Microorganism

Refers to many groups of organisms that are small and generally require the help of a microscope to be recognized. Microorganisms in a broad sense include bacteria, Actinomycetes, molds, yeasts, spirochetes, rickettsia, mycoplasma, chlamydia, viruses, viroids, protozoa and unicellular algae.

Community structure

It is one of the characteristics of the overall level of the biological community, and the most important item in a series of attributes of the community. Community structure package Including nutritional structure, spatial structure (vertical distribution and horizontal distribution), time structure (circadian rhythm and seasonal distribution) and physical Kinds of structure and other aspects.

Dominant species

Refers to the species with a large number and high frequency in an ecosystem or community.

Species diversity

The index is measured by the number of species in a community and their relative abundance, including the number of existing species in the community Order also includes the relative abundance of species (ie, homogeneity), that is, the abundance and heterogeneity of species within a community or ecosystem.

Evenness

An index reflecting the uniformity of the community structure.

Richness

An index indicating the abundance of species in a community (or sample).

3.10

Intertidal benthos

3 Plants living on the bottom surface of the intertidal zone and animals on the bottom surface and in the bottom.

3.11

Macrobenthos

The animals and plants that live on, in or near the bottom of waters are collectively called benthic organisms. Macrobenthos A type of organisms, benthic organisms that cannot pass through a 0.5 mm mesh screen.

4 General requirements for biological monitoring in coastal waters

The development of the implementation plan for coastal biological monitoring shall be implemented in accordance with the relevant requirements of HJ 442.1; the layout of monitoring points shall be in accordance with HJ 730 Implementation requirements; data processing and data reporting shall be implemented in accordance with HJ 442.2; evaluation and reporting shall be implemented in accordance with HJ 442.10.