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

HJ 442.2-2020

Replacing HJ 442-2008

**Technical Specifications for Environmental Monitoring in
Coastal Seas - Part 2: Data Processing and Information
Management**

近岸海域环境监测技术规范 第二部分 数据处理与信息
管理
(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 People's Republic of China Regulations of the People's Republic of China on the Prevention and Control of Land-Source Pollutants Pollution and Damage to the Marine Environment Regulations on the Management of Project Pollution Damage to the Marine Environment, "Administrative Measures for Environmental Functional Zones in Coastal Seas", to regulate the ecological environment of coastal seas Quality monitoring, protecting the ecological environment, and ensuring the scientific, accurate, systematic and comparable environmental monitoring of the coastal waters across the country this standard is formulated for sex and representativeness.

This standard was first published in 2008. The original standard drafting unit was China Environmental Monitoring Station and Zhoushan Ocean Ecological environment 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, as the second part of the revised standard, focuses on data processing, statistics, review and submission content.

Order the following content.

--Complete the data processing, data submission and data archiving parts;

--Added data review, problem judgment and handling.

Appendix A of this standard is an informative appendix.

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 Two. Data Processing and Information Management

1 Scope of application this standard specifies the technical requirements for the processing, review and submission of environmental monitoring data in coastal waters.

This standard is applicable to the ecological environment quality (water quality, sediment, biological, quality) of coastal waters, rivers entering the sea, Direct discharge of sea pollution sources and impacts on the water environment of coastal waters, monitoring of sudden emergencies and special monitoring, etc.

2 Normative references

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

GB/T 4883 Statistical processing and interpretation of data Judgment and processing of outliers in normal samples GB/T 8170 Numerical rounding rules and the expression and

determination of limit values HJ 168 Technical Guidelines for the Preparation and Revision of Environmental Monitoring and Analysis Methods HJ 442.6 Technical Specification for Environmental Monitoring in Coastal Seas Part 6 Biological Monitoring in Coastal Seas HJ 442.10 Technical Specifications for Environmental Monitoring in Coastal Seas Part Ten Evaluation and Report

3 Terms and definitions

The following terms and definitions apply to this standard.

Monitoring data integrity all information in the process of obtaining monitoring data. Including all the information of the sampling, storage and analysis process.

4.1 Original record

The original record should be able to accurately record the value of the data, the effective number of digits and the related information generated, including sampling, transportation security Information on storage, pre-processing, analysis methods, sample dilution or concentration multiples, measuring instruments and instruments, calibration, analysis, etc. interest.

The original record indicates the dimension of the test result and its effective digits, which should be filled in with reference to the specific provisions in the analysis method. If not Under this rule, only the last number in a data is allowed to be an estimated (suspicious) value. The number of significant digits depends on the the measurement method, the accuracy of the equipment used and the content of the substance to be measured are determined. The volumetric method and the gravimetric method can have 4 significant digits.

Characters, spectrophotometry, atomic absorption method, gas chromatography, etc. usually only have 3 significant digits at most. When the substance to be tested contains when the amount is low, there may be only 1 significant digit. Analytical instrument with computer processing, the number of digits for printing or displaying results 3d) Mean values of special items such as marine microorganisms (total number of bacteria, fecal coliforms, etc.) are expressed as geometric mean values, the average values of other items such as chlorophyll a, plankton, benthic organisms and intertidal organisms are in the arithmetic mean table for instructions, see HJ 442.6 related requirements;

e) When calculating the monitoring results, the data shall be rounded to the data with the least number of significant digits specified in the data participating in the calculation the digits of are the same;

f) 4 or more monitoring data of the same normal distribution population, if the effective number of data participating in the calculation is inconsistent, it is allowed to reserve 1 bit

more than the minimum bit.

4.3.2 Calculation of the measured value of a single monitoring point (section)

The measured value of a single sea area monitoring point is calculated according to the average value of the parallel samples at each level of the sampling point to obtain each level.

Measured value, and then calculate the average value of measured value at different levels.

The measured value of a single monitoring section is the average of the measured values of each point.

Single sea area monitoring and river section measurement values are the basis for calculating regional, river basin and annual average values.

4.3.3 Calculation of the mean value of a single monitoring area (or watershed)

The average value of a single monitoring area (or watershed) is the arithmetic average of the measured values of each point or section.

4.3.4 Calculation of annual average value of points (sections)

The annual average of points (sections) is the arithmetic mean of the measured values of each single point (section) during the year.

4.3.5 Calculation of regional (watershed) annual average

The annual average of the area (watershed) is the arithmetic average of the annual average of each point (section).

5.1 Original records and data review

Monitoring data review is a comprehensive review of all monitoring information, focusing on the accuracy, precision, and accuracy of monitoring results.

Reasonability, consistency and traceability, including confirmation of sample collection, storage and transportation, handover, analysis methods, pre-processing, the whole process of analysis and recording. The audit basis is environmental quality standards, pollutant discharge standards, method standards and monitoring the relevant provisions of the specification.

The original records take effect after three-level review, and the person in charge of the analysis room shall follow the sample handover record, experimental record and self-check Control results, etc., are reviewed for the accuracy and precision of the determination in the laboratory; quality control personnel through sampling, handover, analysis and Analyze other control records for completeness, accuracy, precision, and traceability review of the