

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

HJ/T 173-2005

Replacing HJ/T 173-2005

**Technical specifications for development of environmental
reference materials
(English Translation)**

Issued on: December 29, 2017

Implemented on: April 1, 2018

Issued by: Ministry of Ecology and Environment

Table of Contents

Foreword

1 Scope of application .1

2 Normative references .1

3 Terms and definitions

4 Management requirements .2

5 Technical requirements .2

Appendix A (Normative) Environmental standard sample uniformity test .8

Appendix B (Normative) Environmental Standard Sample Stability Test

Foreword

In order to carry out "Environmental Protection Law of the People's Republic of China", protect the environment, protect human health, standardize environmental standards Research duplication, to ensure that environmental standards sample size is accurate and reliable, the development of this standard.

This standard is mainly based on "Standard Sample Working Guideline" (GB/T 15000) series of standards and ISO/REMCO latest hair Cloth of the standard sample technical guide, combined with the environmental standard sample research copy of the technical characteristics of their own, provides a national environmental standards Product research and replication management requirements and environmental standards sample design, preparation, uniformity of research and testing, stability research and testing, Determination, the value of the characteristics of the assessment and certification, and labeling, packaging, storage and transportation, repeated preparation of the technical requirements of the process.

This standard is the "Environmental Standard Sample Copy Technical Specifications" (HJ/T 173-2005) amendment.

"Environmental standard sample research and copying technical specifications" (HJ/T 173-2005) was first released in 2005, the original standard drafting the unit is the State Environmental Protection Administration standard sample research institute. This is the first revision. The main contents of the revision are as follows.

- Amendments to the definitions of environmental standard samples and national environmental standard samples;
- Organizational and management requirements modified to manage requirements and

adjust some of the terms;

- Increase the environmental standard sample preparation technical requirements;
- Perfected the environmental standard sample uniformity research and testing of technical requirements;
- Perfected the technical requirements for research and test of stability of environmental standard samples;
- Perfected the environmental standard sample determination of technical requirements;
- Added Appendix A, Appendix B.

Since the implementation of this standard date, "Environmental Standards Sample Copy Technical Specifications" (HJ/T 173-2005) abolished.

This standard Appendix A, Appendix B is a normative appendix.

This standard by the Environmental Protection Department of Environmental Monitoring Division and Science and Technology Standards Division to develop.

This standard was drafted. Sino-Japanese Friendship Environmental Protection Center.

This standard MEP approved on December 29, 2017.

This standard since April 1, 2018 come into operation.

This standard is interpreted by the MEP.

Environmental standard sample research and reproduction of technical specifications

1 Scope of application

This standard specifies the management of national environmental standards sample research copy requirements and environmental standards sample project design, sample system Research and test of uniformity, research and test of stability, measurement of characteristic value, evaluation and indication of characteristic value, certificate and standard Sign, packaging, storage and transportation, repeat preparation and other technical requirements.

This standard applies to the research and development of environmental standard samples.

2 Normative references

This standard references the following documents or the terms of them. For undated references, the effective version applies in this standard.

GB/T 4882 statistical data processing and interpretation of normality test GB/T 8170 rounded repair rules and limit values of the representation and judgment GB/T 15000.3

standard sample work guidelines (3) standard sample set the general principles and statistical methods GB/T 15000.4 standard sample work guidelines (4) standard sample certificate and label content GB/T 15000.6 standard sample work guidelines (6) Standard sample packaging GB/T 15000.7 standard sample work guidelines (7) standard sample producer's general requirements JJF 1059.1 Measurement Uncertainty Assessment and Expression

3 Terms and definitions

Environmental standards sample environmental reference material One or more environmental samples or materials that are sufficiently uniform and stable to pass the technical review and are accompanied by a certificate of use, Mainly used for calibration and verification of environmental monitoring and analysis equipment, evaluation and verification of environmental monitoring and analysis methods or to determine other environmental samples the characteristic value.

National environmental standards sample national certified environmental reference material Through the technical evaluation of experts organized by the competent department of national environmental protection, the competent department of national standardization shall approve, issue, Authorized production, the use of metrologically validated procedures for the determination of one or more of the characteristics of the environmental standard samples, with national standard Quasi-sample certificates provide statements of stated property values and their uncertainty and traceability.

Synthetic matrix environmental standard sample synthetic matrix environmental reference material Usually pure chemical reagents (including pure gas) as the raw material for the preparation of environmental standards known as the composite substrate environmental standards Samples, such as environmental monitoring and analysis of standard solution, the standard gas, water quality standards and other samples.

Natural matrix environmental standard sample natural matrix environmental reference material Environmental standards will be prepared from the actual sample of environmental standards as natural samples of the substrate environment standards, such as soil standards Samples, airborne particles, such as standard samples.

Primary method

The measurement method with the highest metrological characteristics, the operation of which can be completely described and understood, can be based on the International System of Units (SI) units make a complete statement of their uncertainty.

4 Management requirements

4.1

The competent department of environmental protection of the country is the technical focal point for environmental standard samples and organizes the development of national environmental standard samples Research copy plan preparation, implementation and review.

4.2

The national standardization authorities for the national environmental standards unified centralized unit, unified management of national environmental standards Product research replication plan preparation, implementation, examination and approval of the release and use of supervision.

4.3

Research units should be based on replication of national environmental standards sample research organizations to carry out environmental standards sample research work.

4.4

Research units should be based on the actual needs of national environmental protection standard preparation of environmental standards research program Project proposals, and the project proposal through the National Standard Technical Committee of Standardization Technical Committee samples of environmental standards report State Environmental Protection Administration and the National Standard Technical Committee review.

4.5

The research and reproduction unit shall have the necessary workplaces, measuring equipment and management necessary for carrying out environmental standard sample preparation and replication and professional and technical personnel, as well as by GB/T 15000.7 provisions of the establishment of quality management system.

4.6

The research unit shall take overall responsibility for the quality and technical specifications of the standard sample of its research and development environment.

5.1 Project Design

5.1.1

Environmental standards The design of the sample research project involves the preparation of environmental standards and the amount of material required.

Sex, stability and determination of the design of the study, and meet the relevant requirements GB/T 15000.3 requirements.