

Translated English of Chinese Standard: HJ630-2011

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HJ

**Environmental Protection Standard
of the People's Republic of China**

HJ 630-2011

**Technical guideline on environmental
monitoring quality management**

环境监测质量管理 技术导则

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In order to implement the "Environmental Protection Law of the People's Republic of China", protect the environment, protect human health, regulate environmental monitoring, it is now approving and publishing "Ambient air PM10 and PM2.5 - Gravimetric method" and other 2 standards as the national environmental standards.

The standards' name and number are as follows:

1. Ambient air PM10 and PM2.5 - Gravimetric method (HJ 618-2011);
2. Stationary source emission. Determination of sulphur dioxide. Non-dispersive infrared absorption method (HJ 629-2011);
3. Technical guideline on environmental monitoring quality management (HJ 630 -2011).

Above standards shall be implemented from November 1, 2011; they are published by the China Environmental Science Press; content of the standards may be found from the website of Ministry of Environmental Protection (bz.mep.gov.cn).

From the date of implementation of above standards, the following national environmental standards becomes obsolete, the standard name and number are as follows:

Determination methods of airborne particulate concentration (GB 6921-86).

Notice is hereby given.

September 8, 2011

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Foreword

In order to implement the "Environmental Protection Law of the People's Republic of China", "Water Pollution Prevention Law of the People's Republic of China", "Air Pollution Prevention Law of the People's Republic of China" and "Solid Waste Pollution Prevention Law of the People's Republic of China"; to ensure the monitoring of the quality of the environment; and to improve the quality of management of environmental monitoring, this Standard is formulated.

This Standard specifies the basic requirements of environmental monitoring quality system, and quality assurance and quality control methods of environmental monitoring process.

This Standard is first-time released.

Appendix A of this Standard is informative.

This Standard was organized and developed by Division of Technical Standard of Ministry of Environmental Protection.

Main drafting organizations of this Standard: China Environmental Monitoring Station, and Jiangsu Province Environmental Monitoring Center.

This Standard is approved by the Ministry of Environmental Protection on September 8, 2011.

This Standard shall be implemented from November 1, 2011.

The standard shall be interpreted by Ministry of Environmental Protection.

Technical guideline on environmental monitoring quality management

1 Application Scope

This Standard specifies the basic requirements of environmental monitoring quality system, quality assurance and quality control methods of environmental monitoring process.

This Standard applies to various environmental monitoring activities; it also applies to Environmental Protection Administration Departments to manage the environmental monitoring; other agencies who engage in environmental monitoring activities may also refer to this Standard.

2 Normative references

The following documents or their provisions are referenced in this Standard. For undated references, the latest versions apply to this Standard.

GB/T 4091 Shewhart control charts

GB/T 4883 Judgment and processing of statistical processing of data and interpretation of the normal sample outliers

GB/T 8170 Rules of rounding off for numerical values & expression and judgment of limiting values

HJ 168 Environmental monitoring - Technical guideline on drawing and revising analytical method standards

3 Terms and definitions

prevent cross-contamination. Toxic and hazardous wastes shall be properly handled, or disposed by qualified organization. It shall establish and maintain management procedures of safety operations; ENSURE that chemicals, toxic substances, hazardous biological, radiation, high temperature, high pressure, impact, water, air, fire, electricity, other endangered factors and environments are under effective control; and HAVE corresponding emergency process measures.

4.12.3 When monitoring at the spot, environmental conditions such as weather during the monitoring period, operational conditions such as water, electricity, gas supply, other working conditions; business conditions and change (stability) of pollutant conditions shall meet the monitoring requirements. It shall have such measures to ensure personnel safety and equipment safety.

4.13 Monitoring method

4.13.1 According to the requirements of relevant standards or technical specifications; it shall choose those methods which can meet the monitoring requirements and quality requirements to implement the monitoring activities. In principle, preferably SELECT those methods of national environmental protection standards, other national standards and other industrial standards; it may also use those methods of international standards and foreign standards; or those monitoring analytical methods which have been recognized widely with authoritativeness. Selected methods shall go through the experimental validation; and FORM the related records meeting the quality monitoring requirements such as method-detection limit, precision and accuracy.

4.13.2 For those standard methods which are used beyond the predetermined scope, self-expansion and modification, they shall be confirmed through experiment; so as to prove that the method is applicable to the intended use; and to form the method to validate reports. Confirmation contents include: sample collection, sample disposal, transportation procedures; method-detection limit; measuring range; precision; accuracy; selection and anti-interference capability of the method.

4.13.3 Standard and work instructions related to monitoring work shall be controlled, effective and enforced; they shall be easily accessible.

shall be aligned with the last digit of dependent variable.

5.6.3 Judgment and treatment of outliers.

Judgment and treatment of outliers shall be executed per GB/T 4883; when there is an abnormally high value, reasons shall be found out the reasons; unexplained abnormal high value shall not be removed at will.

5.6.4 Data verification and auditing.

5.6.4.1 Raw data and copied data shall be verified. Suspicious data shall be verified with original recording of sample analysis.

5.6.4.2 Monitoring raw data shall be signed off by the monitoring personnel and verification personnel. Monitoring personnel shall be responsible for completing the original records; verification personnel shall verify if the data recording is in integrity; if there is error when copying or keying into the computer, if the data is abnormal; and consider the following factors: monitoring methods, monitoring conditions, significant digits of data, data calculation and process procedure, the legal units of measurement and quality control data.

5.6.4.3 The auditing personnel shall audit the accuracy, logic, rationality and comparability of the original data and copied data; FOCUS on the following factors: monitoring sites; monitoring conditions; comparison with historical data; logic relation between the total amount and sub-amount; the same monitoring factor at the same monitoring site; the changing trend among the multiple continuous monitoring results; samples from the same monitoring site and at same time (period); correlation and rationality of analysis result of related monitoring factors and so on.

5.6.5 Expression of monitoring report

5.6.5.1 Monitoring results shall adopt legal units of measurement.

5.6.5.2 When measurement results of parallel samples are within the allowable deviation, their average value shall be reported in measurement results.

5.6.5.3 When monitoring results are below the method-detection limit, USE "ND" to

conditions) may affect the monitoring results during sampling process, it shall attach a detailed description;

-- LIST out the standards or specifications related to sampling methods or procedures; and the description of deviation, additions or deletions;

-- When necessary, ADD introduction such as project construction, production process, pollutants' generation and control;

-- Other information including quality control of whole monitoring process, quality assurance, relevant charts, reference materials, and necessary recommendations.

References and Original Chinese Documents

[1] HJ 630-2011 Technical guideline on environmental monitoring quality management.

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