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INDUSTRY STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

HJ 194-2017

Replacing HJ/T 194-2005

Technical specifications on manual methods for ambient air quality monitoring

环境空气质量手工监测技术规范 含2018年第1号修改单

(English Translation)

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Foreword

In order to implement the Law of the People's Republic of China on Environmental Protection and the Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution, Test system, improve the level of environmental management, the development of this standard.

This standard specifies the ambient air quality manual monitoring point layout, sampling time and frequency, sample collection, transportation and preservation, monitoring and analysis methods, data processing, quality assurance and quality control and other technical requirements.

This standard is the "ambient air quality manual monitoring technical specifications" (HJ/T 194-2005) amendment.

The original standard was first released on November 9, 2005, the original standard drafting unit for the China Environmental Monitoring Station, Hubei Province ring Habitat Monitoring Center Station, Hunan Provincial Environmental Monitoring Center Station. This is the first revision. The main contents of the revision are as follows.

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- revised the scope of application, terms and definitions.

- Added point layout, sample transport and preservation and data processing.

- Complement the sampling, monitoring and analysis methods, quality assurance and quality control.

- Added Appendix D, Appendix E.

Since the implementation of this standard, "Manual Air Quality Monitoring Technical Specifications" (HJ/T 194-2005) abolished.

This standard Appendix A, Appendix B and Appendix C normative appendix, Appendix D and Appendix E is an informative annex.

This standard is revised by the Ministry of Environmental Protection Environmental Monitoring Department and Science and Technology Standards Division.

This standard was drafted. China Environmental Monitoring Station, Ningbo City Environmental Monitoring Center, Hubei Province Environmental Monitoring Center Station, Shenyang City Environmental Monitoring Center Station, Hunan Provincial Environmental Monitoring Center Station.

This standard MEP approved on December 29, 2017.

This standard since April 1, 2018 come into operation.

This standard is interpreted by the MEP.

Ambient air quality manual monitoring technical specifications

1 Scope of application

This standard specifies the ambient air quality manual monitoring point layout, sampling time and frequency, sample collection, sample Transport and preservation, data processing, quality assurance and quality control and other technical requirements apply to the use of manual methods of environmental air Gas quality monitoring activities.

2 Normative references

This standard references the following documents in the terms. For dated references, the effective version applies to this edition standard.

GB 3095 ambient air quality standards GB/T 4883 statistical data processing and interpretation of normal sample outliers to determine and deal with GB/T 8170 rounded repair rules and limit values of the representation and judgment GB/T 14675 air quality malodor three points comparison Odor bag method GB/T 15265 Determination of dust in ambient air Gravimetric method Ambient air - Determination of total suspended particulates

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- Gravimetric method HJ 93 Ambient Air Particulate (PM10 and PM2.5) Sampler Technical Requirements and Test Methods Ambient air - Determination of fluoride - Lime filter paper - Fluoride ion selective electrode method HJ 618 Ambient air - Determination of PM10 and PM2.5 Gravimetric method HJ 630 Environmental Monitoring Quality Management Technical Guidelines HJ 656 Ambient Air Particulates (PM2.5) Manual Monitoring Method (Gravimetric) Technical Specifications HJ 663 Technical Specifications of Ambient Air Quality Evaluation (Trial) HJ 664 Technical Specifications for Ambient Air Quality Monitoring Sites (Trial Implementation) HJ 691 Environmental airborne semi-volatile organic compounds sampling techniques HJ 759 Ambient air - Determination of volatile organic compounds - Tank sampling/Gas chromatography - mass spectrometry HJ/T 374 total suspended particulate sampler technical requirements and testing methods HJ/T 375 ambient air sampler technical requirements and testing methods HJ/T 376 24-hour constant temperature automatic continuous ambient air sampler technical requirements and test methods

3 Terms and definitions

The following terms and definitions apply to this standard.

Manual air quality monitoring Refers to the monitoring point with the sampling device to collect ambient air samples for a certain period of time, the collected samples in the laboratory sub Analysis, processing process.

Solution absorption sampling method Refers to the use of the measured components of the air can be quickly dissolved in the absorption solution or the absorption of liquid chemical reaction with the principle of rapid, Sampling methods for collecting gaseous pollutants in ambient air.

Adsorption tube sampling method Refers to the use of air by the measured components by adsorption, dissolution or chemical reaction is blocked on the solid adsorbent role Sampling and collection of gaseous pollutants in ambient air.

Filter sampling method Refers to the use of different materials filter to collect airborne target pollutants sampling method.

Filter-sorbent sampling method Refers to the filter and adsorbent used in conjunction, while collecting ambient air to the coexistence of gaseous and particulate matter of the mining Kind of method.

Direct sampling

Means the sampling of air samples collected directly in a suitable gas collector.

Passive Sampling

Refers to the sampling device or gas sample capture medium exposed to ambient air,

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without pumping power, relying on ambient air to be tested for the natural diffusion of pollutants molecules, migration, sedimentation and other direct collection of pollutants sampling method.

Standard state standard state Refers to the temperature of 273.15 K, the pressure of 101.325 kPa when the state. The standard concentration of pollutants are standard State of concentration.

4 O'clock layout

4.1

The basic principle Sampling points should be based on the purpose of monitoring tasks, laying the layout, if necessary, after the site survey confirmed. Selected points should have a good representation, the monitoring data can objectively reflect the level of air quality within a certain space or air pollution measured Dye concentration level. The layout and number of monitoring points should meet the monitoring purposes and mission requirements, in accordance with HJ 664 related Request execution

4.2 Monitoring points laying technical requirements

4.2.1

Monitoring points should be located in a relatively safe, convenient transportation, power and fire protection measures are guaranteed.

4.2.2

monitoring point sampling port should be around the horizontal plane to ensure that there is more than 270 ° of capture space, there should be no impeding the flow of air Tall buildings, trees or other obstructions; if the side of the sampling port is close to the building, the water level around the sampling port should be 180° Above the free space. The horizontal distance from the sampling port to the highest obstacle nearby should be the height of the obstacle and the sampling port More than twice the difference or less than 30 ° from the sampling port to the top of the building.

4.2.3

Sampling interval The height of the ground is within the range of 1.5 m to 15 m and 1 m above the surface of the support. There are special monitoring to be Time, should be adjusted according to the purpose of monitoring.

4.2.4

sampling points laid out other technical requirements in accordance with HJ 664 implementation.

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