

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

HJ/T 2.2-1993

Replacing HJ 2.2-2008

**Technical guidelines for environmental impact assessment -
Atmospheric environment
(English Translation)**

Issued on: July 31, 2018

Implemented on: December 1, 2018

Issued by: Ministry of Ecology and Environment

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Foreword

To implement the Environmental Protection Law of the People's Republic of China, the Environmental Impact Assessment Law of the People's Republic of China Law on Prevention and Control of Gas Pollution and Regulations on Environmental Protection Management of Construction Projects to Prevent and Control Air Pollution, Improve Environmental Quality, and Guide Atmospheric Environmental Impacts Evaluation work, the development of this standard.

This standard specifies the general principles, contents, working procedures, methods and requirements for atmospheric environmental impact assessment.

This standard applies to atmospheric environmental impact assessment of construction projects. The planned atmospheric environmental impact assessment can be used as reference.

This standard is the second revision of the Technical Guidelines for Environmental Impact Assessment (HJ/T 2.2-93), the first revision.

For the Environmental Impact Assessment Technical Guidelines Atmospheric Environment (HJ 2.2-2008). The main revisions are.

- Adjust and supplement the relevant terms and definitions;
- Improved evaluation level determination method;
- Simplified monitoring of current environmental air quality;
- Simplified the evaluation content of the three-level evaluation project;
- Increased atmospheric environmental impact prediction and evaluation methods for secondary pollutants;
- Increased atmospheric environmental impact assessment requirements for compliance areas and non-compliance areas;
- Improved method for determining the distance of the atmospheric environment;
- Increased the accounting content of pollutant emissions;
- Increased environmental monitoring program requirements;
- Supplement and improve the appendix.

Appendix A to Appendix C of this standard are normative appendices, and Appendix D and Appendix E are informative appendices.

From the date of implementation of this standard, the Technical Guidelines for Environmental Impact Assessment (Atmospheric Environment) (HJ 2.2-2008) shall be abolished.

This standard is formulated by the Environmental Impact Assessment Department of the Ministry of Ecology and Environment and the Science and Technology Standards Department.

This standard is mainly drafted by. Environmental Engineering Evaluation Center of the Ministry of Environmental Protection, China Academy of Environmental Sciences, China Environmental Monitoring Center.

This standard was approved by the Ministry of Ecology and Environment on July 30, 2018.

This standard has been implemented since December 1, 2018.

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

Environmental Impact Assessment Technical Guidelines Atmospheric Environment

1 Scope of application

This standard specifies the general principles, contents, working procedures, methods and requirements for atmospheric environmental impact assessment.

This standard applies to atmospheric environmental impact assessment of construction

projects.

The planned atmospheric environmental impact assessment can be used as reference.

2 Normative references

This standard refers to the following documents or their terms. For undated references, the latest edition applies to this standard.

GB 3095 Ambient Air Quality Standard HJ 2.1 General Outline of Technical Guidelines for Environmental Impact Assessment of Construction Projects HJ 130 Technical Guidelines for Planning Environmental Impact Assessment HJ 663 Technical Specifications for Ambient Air Quality Assessment (Trial) HJ 664 Technical Specifications for Environmental Air Quality Monitoring Points (Trial) HJ 819 General Guidelines for Self-Monitoring Technical Units of Sewage Units HJ 942 General Regulations for the Application and Issuance of Pollution Discharge Permits "Notice on the Issuance of the Catalogue of Highly Contaminated Fuels" (National Environmental Regulations [2017] No. 2) "Catalogue of Classified Management of Environmental Impact Assessment of Construction Projects"

3 Terms and definitions

The following terms and definitions apply to this standard.

Ambient air protection target Refers to nature reserves, scenic spots and other areas that require special protection within the scope of evaluation according to the provisions of GB 3095.

The area, the residential area in the second type of district, the cultural area and the area where the population is concentrated in the rural area.

Classification of air pollutants Pollutants emitted by atmospheric pollution sources are classified into particulate pollutants and gaseous pollutants according to their existence.

According to the generation mechanism, it is divided into primary pollutants and secondary pollutants. It is directly produced by human or natural activities and is directly discharged into the ring by pollution sources.

The pollutants in the environment are called primary pollutants; the primary pollutants discharged into the environment change under the influence of physical and chemical factors, or with the environment.

The new pollutant formed by the reaction of other substances in the process is called secondary pollutant.

Basic air pollutants Refers to the basic project pollutants specified in GB 3095. Including sulfur dioxide (SO₂), nitrogen dioxide (NO₂), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), ozone (O₃).

Other pollutants other air pollutants Refers to other project pollutants other than basic pollutants.

Abnormal discharge

Refers to the discharge of pollutants under abnormal conditions such as open parking (work, furnace), equipment overhaul, and abnormal operation of process equipment in the production process.

And pollutant emission control measures fail to achieve emissions under the conditions of efficiency.

Air quality model

Refers to a mathematical model that uses numerical methods to simulate the physical diffusion and chemical reactions of pollutants in the atmosphere, including Gaussian diffusion models and regions.

Photochemical grid model.

Gaussian diffusion model. also called Gaussian smoke group or smoke flow model, referred to as Gaussian model. Using a non-grid, simplified transport diffusion algorithm, no There are complex chemical mechanisms, which are generally used to simulate the transport and diffusion of primary pollutants, or to simulate secondary pollutants through a simple chemical reaction mechanism.

Regional photochemical grid model. referred to as grid model. Adopt complex atmospheric physics (advection, diffusion, boundary layer, cloud, precipitation, Dry deposition, etc.) and atmospheric chemistry (gas, liquid, aerosol, heterogeneous) algorithms and gridded transport chemical conversion models, generally used for modulo Air pollutant transport and chemical conversion at the proposed city and regional scale.

Recommended model

Refers to the environmental model selected by the competent department of ecological environment in accordance with certain working procedures and published in the form of a recommendation list. Included in the recommendation the environmental model of the directory is referred to as the recommended model. An alternative model can be used when the applicability of the recommended model does not suffice. Alternative models are generally required it can be used after being evaluated by experts in the model field and approved by the competent department of ecological environment.

See Appendix A and Appendix B for recommended models and usage specifications for this guide.

Short-term concentration Refers to the average mass concentration of a pollutant with an evaluation period of 24 h or less, including 1 h average mass concentration and 8 h average mass concentration.