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**INDUSTRY STANDARD OF THE
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**Technical guidelines of accounting method for pollution source
intensity -- Thermal power industry**

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(English Translation)

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1 Pollution source strong accounting technical guide thermal power

1 Scope of application this standard specifies the basic principles for the calculation of exhaust pollutants, wastewater pollutants, noise, and solid waste sources in the thermal power industry.

Content, accounting methods and requirements.

This standard is applicable to the determination of the source strength of pollutants in the environmental impact assessment of construction projects implementing GB 13223.

This standard is applicable to the strong accounting of pollutant sources under normal and abnormal working conditions in the thermal power industry, and is not applicable to sudden leakage, fire, the source of pollutants is strongly accounted for in the event of an explosion or other accident.

2 Normative references

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

GB 13223 Standard for emission of atmospheric pollutants from thermal power plants GB/T 31962 sewage discharged into urban sewer water quality standards HJ 75 fixed pollution source flue gas (SO₂, NO_x, particulate matter) continuous monitoring technical specifications HJ 76 fixed pollution source flue gas (SO₂, NO_x, particulate matter) continuous monitoring system technology Seeking detection method HJ/T 92 Water Pollutant Total Monitoring Technical Specification Technical Specifications for Operation and Assessment of HJ/T 355 Water Pollution Source Online Monitoring System (Trial) HJ/T 356 Water Pollution Source Online Monitoring System Data Validity Discrimination Technical Specification (Trial) HJ/T 373 Fixed source pollution monitoring quality assurance and quality control technical specifications HJ/T 397 Fixed Source Exhaust Gas Monitoring Technical Specification HJ 820 sewage unit self-monitoring technical guide thermal power generation and boiler HJ 884 Guidelines for the Guidelines for Sources of Pollution Sources HJ 2301 Feasible Technical Guide for Pollution Prevention and Control in Thermal Power

Plants National Pollution Source Survey Industrial Pollution Source Pollution Discharge Coefficient Manual

3 Terms and definitions

The following terms and definitions apply to this standard.

Automated pollutant monitoring Continuous, real-time automatic monitoring of emission concentrations and emissions of pollutants from fixed sources, also known as contamination on-line monitoring or continuous monitoring of dyes.

24 Accounting procedures and method selection principles

4.1 Accounting procedures Source strength accounting procedures mainly include pollution source and pollution factor identification, accounting method selection, accounting parameter selection and pollutants.

For emissions calculations, see HJ 884 for details.

The accounting of pollutant discharges should include both normal operating conditions and abnormal working conditions, and clear normal work.

The amount of emissions and abnormal operating conditions, the total emissions of pollutants during the accounting period should be the sum of the two.

4.2 Accounting method selection

4.2.1 General requirements Source strength accounting methods include material balance algorithm, analogy method, actual measurement method, and sewage coefficient method, etc., which should be as specified in Table 1.

Order selection.

4.2.2 Exhaust gas

a) New (reconstruction, expansion) construction project pollution source the organized source is preferred to use the material balance algorithm for accounting, and the second is to use the discharge coefficient method for accounting.

Unorganized source strength is accounted for by analogy or other feasible methods.

b) Existing engineering pollution sources the organized source is prioritized by the actual measurement method, and the material balance algorithm and the discharge coefficient method are used for accounting. Measured method when the accounting source is strong, the HJ 820 and the pollutant discharge permit of the pollutant discharge unit are required to adopt the automatically monitored pollution factor.

Effective automatic monitoring data for accounting; automatic monitoring is not required for

HJ 820 and sewage disposal units Pollution factors, priority to use effective automatic monitoring data, followed by manual monitoring data.

The unorganized source strength is prioritized by the actual measurement method, followed by the analogy method.

4.2.3 Waste water

a) New (reconstruction, expansion) construction project pollution source the analogy method is preferred, followed by the discharge coefficient method.

b) Existing engineering pollution sources the actual measurement method is used for accounting, and the sewage coefficient method is used for accounting.

4.2.4 Noise

a) New (reconstruction, expansion) construction project pollution source the analogy method is used for accounting.

b) Existing engineering pollution sources the actual measurement method is preferred, followed by the analogy method.

4.2.5 Solid waste

a) New (reconstruction, expansion) construction project pollution source Fly ash, slag/desulfurization slag, desulfurization gypsum using material balance algorithm, discharge coefficient method accounting, waste denitration catalyst, etc.

3 His solid waste is accounted for by the analogy method.

b) Existing engineering pollution sources Fly ash, slag/desulfurization slag, desulfurization gypsum using actual measurement method, material balance algorithm, discharge coefficient method accounting, waste denitrification Other solid wastes such as chemicals are accounted for by the actual measurement method.

Table 1 Source strength accounting method selection list

Environmental factor	pollution source	main pollution factor	Accounting method	prioritization
New (reform, expansion) construction	Pollution source	existing engineering pollution source	Exhaust gas chimney Soot (particulate matter), dioxide Sulfur, nitrogen oxides, mercury and their Compound	note 1 Material balance algorithm 2. Sewage coefficient method Actual measurement method 2. Material balance algorithm 3. Sewage coefficient method
Unorganized emission source	particle	analogy or other feasible methods	Actual measurement method 2. Analogy	Waste water Total venting row) Chemical oxygen demand, ammonia nitrogen, suspension Matter, petroleum, fluoride, sulfur Compound, volatile phenol, total solubility Solid (total salt content), total phosphorus injection 2 1. Analogy method 2. Sewage coefficient method Actual measurement method 2. Discharge factor method for desulfurization wastewater treatment Workshop outlet (if outside row)

Total lead, total mercury, Total cadmium, total arsenic injection 2 noise Steam turbine, boiler, Cooling tower, fan, Pump, mill, etc.

Noise source level analogy method 1. actual measurement method 2. analogy method Solid Waste Boiler and dust removal, off Sulfur equipment, etc.

Fly ash, slag/desulfurization slag, off Sulfur gypsum Material balance algorithm 2. Sewage coefficient method Actual measurement method 2. Material balance algorithm 3. Sewage coefficient method Denitration equipment waste denitration catalyst analogy method

Note 1: The exhaust gas accounting factor is determined according to GB 13223.

Note 2: The wastewater accounting factor is determined according to HJ 820. If domestic sewage is not discharged into the total discharge, the total phosphorus may not be accounted for.

5 Exhaust pollutant source strong accounting

5.1 Material Balance Algorithm

5.1.1 The material balance algorithm is to quantify the change of materials used in the production process according to the law of conservation of mass of matter.

Analysis.

a) The amount of soot emissions is calculated according to formula (1).

4 net,ar ar

g fh1 100 100 100 33870 x x A q QAM B (1) where. MA--the amount of soot emissions during the accounting period, t;

Bg--Boiler fuel consumption during the accounting period, t;

4c--Dust removal efficiency, %, when wet desulfurization, wet electric dedusting and other equipment are installed downstream of the precipitator, it should be considered Dust removal effect;

Aar--the quality score of the received ash, %;

q4--Boiler machinery incomplete combustion heat loss, %;

Qnet, ar--receives the base low calorific value, kJ/kg;

Ffh--the share of fly ash from boiler flue gas.

When a circulating fluidized bed boiler is added with a desulfurizing agent such as limestone, the ash of the incoming material can be expressed by the converted ash, and the formula (2) the converted ash Azs is substituted into the formula (1).

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