

HJ

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**Technical specification for pollution control of fly-ash from
municipal solid waste incineration
(English Translation)**

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Foreword

To implement the "Environmental Protection Law of the People's Republic of China" and "Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes", etc.

Laws and regulations, prevent and control environmental pollution, improve the quality of the ecological environment, regulate and guide the environmental management of domestic waste incineration fly ash, Develop this standard.

This standard specifies the technical requirements for pollution control during the collection, storage, transportation, treatment and disposal of domestic waste incineration fly ash.

This standard is a guiding standard.

This standard is issued for the first time.

This standard is organized and formulated by the Solid Waste and Chemicals Department and the Laws and Standards Department of the Ministry of Ecology and Environment.

Drafting organizations of this standard. Chinese Academy of Environmental Sciences, Shanghai University, Ministry of Ecology and Environment Solid Waste and Chemical Management Technology Center, China Building Materials Research Institute Co., Ltd., Tsinghua University.

This standard was approved by the Ministry of Ecology and Environment on August 27, 2020.

This standard will be implemented on August 27, 2020.

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

Technical specifications for pollution control of domestic waste incineration fly ash (for trial implementation)

1 Scope of application

This standard specifies the overall requirements for the pollution control of domestic waste incineration fly ash, collection, storage, transportation, treatment and disposal Process pollution control technical requirements, as well as monitoring and environmental management requirements.

This standard applies to pollution control during the collection, storage, transportation, treatment and disposal of domestic waste incineration fly ash.

For the environmental impact assessment, environmental protection facility design and completion of construction projects related to the treatment and disposal of domestic waste incineration fly ash Technical basis for environmental protection acceptance, pollution discharge permit management, cleaner production audit, etc.

2 Normative references

This standard quotes the following documents or their clauses. For undated reference documents, their valid versions are applicable to this standard.

GB 8978 Integrated Wastewater Discharge Standard GB/T 16157 Determination of particulate matter in exhaust from stationary sources and sampling method for gaseous pollutants GB 16297 Comprehensive Emission Standard of Air Pollutants GB 16889 Pollution Control Standard for Domestic Waste Landfill Site GB 18484 pollution control standard for hazardous waste incineration GB 18597 Pollution Control Standard for Hazardous Waste Storage GB 18598 Pollution Control Standard for Hazardous Waste Landfill GB 30485 Cement Kiln Co-processing Solid Waste Pollution Control Standard GB 30760 Technical Specification for Cement Kiln Co-processing of Solid Waste GB/T 30810 Determination method of heavy metals leached from cement mortar GB 34330 General Rules for the Identification Standard of Solid Waste HJ 77.3 Determination of Dioxins in Solid Waste Isotope Dilution High Resolution Gas Chromatography-High Resolution Mass Spectrometry HJ/T 397 Fixed source exhaust gas monitoring technical specification HJ 557 Solid waste leaching toxicity leaching method horizontal oscillation method HJ 662 Cement Kiln Co-processing Solid Waste Environmental Protection Technical Specification HJ 1091 Technical guidelines for pollution prevention and control of solid waste recycling HJ 2025 Technical specification for hazardous waste collection, storage and transportation

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Fly-ash from municipal solid waste incineration

The traps of the flue gas purification system of the domestic waste incineration facility and the bottom ash settled at the bottom of the flue and chimney. Abbreviated in this standard "Fly Ash".

3.2 Treatment

Through physical or chemical reactions, one or more substances in fly ash, such as heavy metals, dioxins, and chloride salts, are determined.

The process of removing to a certain degree, or inhibiting its leachability, so that the treated fly ash meets the requirements of subsequent utilization or disposal.

3.3 Low temperature thermal decomposition

The fly ash is subjected to a low-temperature thermal decomposition reaction at a temperature of less than 500°C under an oxygen-deficient or oxygen-free atmosphere to remove dioxins from it.

The process of chlorine detoxification.

3.4 High temperature sintering

After mixing the fly ash or its processed products with other silico-alumina components and fluxes, it is partially melted at high temperature.

The process of forming a sintered body product after cooling.

3.5 High temperature melting

After mixing the fly ash or its processed products with other silico-alumina components and fluxes, it is completely melted at high temperature.

After quenching with water and other rapid cooling treatment, the process of forming a dense vitreous product.

4 General requirements

4.1

The appropriate treatment technology should be selected according to the requirements of the follow-up utilization or disposal method for the control of fly ash pollution.

4.2

If there are special pollution control standards for fly ash treatment and disposal technologies, the special pollution control standards shall be implemented.

5 Collection, storage, and transportation pollution control requirements

5.1

The fly ash storage facilities shall have measures such as dust prevention, rain prevention, and seepage (leakage) prevention, and shall meet the requirements of GB 18597.

5.2

If the waste gas collected by the fly ash storage facility is directly discharged, its particulate matter should not exceed the emission concentration limit specified in GB 16297 value. If the collected waste gas is introduced into the domestic waste incinerator flue gas emission system, it should not affect the incinerator flue gas emission standards.

5.3

During the storage and transportation of fly ash, it should be packed in a closed package or placed in a sealed container, or transported in bulk by a closed tanker.

5.4

Other requirements for collection, transportation and storage of fly ash shall comply with HJ 2025 regulations.

5.5

The collection, transportation and storage of fly ash treatment products shall meet the requirements of relevant standards according to their management attributes.

6 Treatment and disposal pollution control requirements

6.1

The fly ash treatment process includes water washing, solidification/stabilization, molding, low-temperature thermal decomposition, high-temperature sintering, and high-temperature melting.

The following requirements should be met.

- a) Fly ash treatment facilities should have automatic control functions for operating parameters such as fly ash feed volume, treatment temperature, and treatment time.
- b) Fly ash treatment should be equipped with a treatment system or returned material reprocessing device for overhauling fly ash and unqualified fly ash treatment products.