NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB 18485-2014

Standard for pollution control on the municipal solid waste incineration

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Table of Contents

1 Scope

This Standard specifies the site selection requirements, technical requirements, requirements for waste entering the furnace, operation requirements, emission control requirements, monitoring requirements, implementation and supervision of municipal solid waste incineration plants.

This Standard applies to the design, environmental impact assessment, completion acceptance and pollution control and supervision and management during the operation of municipal solid waste incineration plants.

The pollution control of industrial kilns with a mass of municipal solid waste exceeding 30% of the total mass of materials entering the furnace (kiln), and the pollution control of sludge generated by domestic sewage treatment facilities and special incinerators for non-hazardous industrial solid waste shall refer to this Standard.

This Standard applies to pollutant emission behaviors permitted by law. The site selection of newly established pollution sources and the management of existing pollution sources in special protection areas shall be implemented in accordance with the relevant provisions of laws, regulations and rules such as the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on the Prevention and Control of Water Pollution, the Marine Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution of Solid Wastes, the Law of the People's

Republic of China on the Prevention and Control of Radioactive Pollution, the Law of the People's Republic of China on Environmental Impact Assessment, the Urban and Rural Planning Law of the People's Republic of China, and the Land Administration Law of the People's Republic of China, etc.

2 Normative References

This document refers to the following documents. For the undated documents, only the latest versions are applicable to this Document.

GB 8978 Integrated Wastewater Discharge Standard

GB 14554 Emission Standards for Odor Pollutants impact assessment documents have been approved before the implementation of this Standard.

3.13 New municipal solid waste incinerator

Newly built, rebuilt and expanded municipal solid waste incinerators whose environmental impact assessment documents are approved after the implementation of this Standard.

3.14 Standard conditions

The gas state at temperature of 273.16K and pressure of 101.325kPa.

3.15 Average value

The average value of at least 3 sample test values at equal time intervals (30min at minimum, and 8h at maximum) during the sampling period; the sampling time interval for dioxins is 6 h at minimum and 8 h at maximum.

3.16 Hourly average value

The arithmetic mean of any pollutant concentration within any 1h; or the arithmetic mean of 4 sample test values collected at equal time intervals within 1h.

3.17 Daily average value

The arithmetic mean of 24 consecutive hourly average values.

3.18 Emission concentration at baseline oxygen content

The emission limits of various pollutant concentrations specified in this Standard refer to the emission concentration at baseline oxygen content converted with 11% (V/V%) O2 (dry flue gas) as the conversion basis under standard conditions, and are converted according to the following Formula.

Where.

rho - emission concentration at baseline oxygen content of atmospheric pollutants, in mg/m3;

rho' - actually measured emission concentration of atmospheric pollutants, in mg/m3;

dia. 0(O2) - initial oxygen content of combustion-supporting air, in %. When air is used for combustion, it is 21;

dia. '(O2) - actually measured oxygen content of flue gas, in %.

4.1 The site selection of a municipal solid waste incineration plant shall comply with the local

urban and rural master plan, environmental protection plan and environmental sanitation special plan; and meet the local requirements for prevention and control of air pollution, water resources protection, and natural ecological protection.

4.2 The location of the municipal solid waste incineration plant site and its distance from the

surrounding population shall be determined based on the conclusion of the environmental impact assessment. This distance can be used as the basis for planning control after approval by the environmental protection administrative department with approval authority.

4.3 When conducting an environmental impact assessment on the site of a municipal solid waste

incineration plant, the leakage of harmful substances that may be generated by various facilities in the municipal solid waste incineration plant, the generation and diffusion of air pollutants (including odorous substances), and possible accident risks shall be considered. According to the category of the environmental functional zone in the area where it is located, a comprehensive assessment shall be made of its impact on the surrounding environment, the health of the residents, daily life and production activities, and the reasonable location relationship between the municipal solid waste incineration plant and the residential areas of permanent residents, agricultural land, surface water bodies and other sensitive objects shall be determined.

5.1 The transportation of municipal solid waste shall be sealed to avoid waste spillage, odor

leakage and sewage dripping during transportation.

5.2 Municipal solid waste storage facilities and leachate collection facilities shall adopt closed

negative pressure measures and ensure that they are in a negative pressure state during operation and shutdown periods. The gas in these facilities shall be first introduced into the incinerator for high-temperature treatment, or collected and deodorized to meet the requirements of GB 14554 before being discharged.

5.3 The main technical performance indicators of domestic waste incinerators shall meet the

following requirements.

(1) The combustion temperature in the furnace, the retention time of flue gas in the furnace and the loss on ignition of the incineration bottom ash shall meet the requirements of Table 1.

--- Electronic waste and its treatment and disposal residues.

Unless otherwise provided by the national environmental protection administrative department.

7 Operation Requirements

7.1 When the incinerator is started, the incineration temperature in the furnace shall be raised to the temperature specified in Article 5.3 of this Standard before municipal solid waste can be added. From the beginning of the addition of municipal solid waste, the amount of input shall be gradually increased until the rated waste treatment capacity is reached. During the startup phase of the incinerator, the incineration temperature in the furnace shall meet the requirements of Table 1 of this Standard; and the incinerator shall reach a stable operating condition within

4 h.

7.2 When the incinerator is shut down, the waste combustion support system shall be started from the beginning of the cessation of the addition of municipal solid waste to ensure that the remaining waste is completely burned and the requirements for the incineration temperature in the furnace specified in Table 1 of this Standard are met.

7.3 If a fault occurs in the incinerator during operation, it shall be repaired in time and restored to normal as soon as possible. If it cannot be repaired, the addition of municipal solid waste shall be stopped immediately and the furnace shall be shut down in accordance with the requirements of Article 7.2 of this Standard. The continuous emission time of pollutants for each fault or accident shall not exceed 4 h.

7.4 The duration of pollutant emissions during the start-up and shutdown process of the incinerator and the duration of pollutant emissions due to failures or accidents each year shall not exceed 60 h in total.

7.5 During the operation of the municipal solid waste incineration plant, an operation record