

Translated English of Chinese Standard: GB13223-2011

Translated by: www.ChineseStandard.net

Wayne Zheng et al.

Email: Wayne@ChineseStandard.net

ICS 13.040.20

Classification: Z62



National Standard of the People's Republic of China

GB13223—2011

Obsolete GB13223—2003

Emission standard of air pollutants for thermal power plants

GB 13223-2011 How to BUY & immediately GET a full-copy of this standard?

1. www.ChineseStandard.net;
2. Search --> Add to Cart --> Checkout (3-steps);
3. No action is required - Full-copy of this standard will be automatically & immediately delivered to your EMAIL address in 0~25 minutes.
4. Support: Sales@ChineseStandard.net. Wayne, Sales manager

Issued on: July 29, 2011

Implemented on: January 1, 2012

Issued by: Ministry of Environmental Protection;

**State Administration for Quality Supervision and Inspection
and Quarantine**

Table of Contents

Foreword	3
1 Scope	5
2 Normative reference standards	6
3 Terms and Definitions	7
4 Requirements of controlling emissions of air pollutants	8
5 Pollutants' monitoring requirements	12
6 Implementation and supervision	14
References and Original Chinese Documents	16

Foreword

In order to carry out “the Protection Act of the People’s Republic of china”, “Atmospheric Pollution Prevention Act of the People’s Republic of China”, and “The state council on implementing the scientific concept of development - to strengthen environmental protection decision” and other laws and regulations; improve the quality of environment; prevent and cure the pollution of the air pollutants from thermal power plants; promote technical progress and sustainable development of thermal power industry, this Standard is formulated for above purposes.

This Standard defines the requirements of concentration limits, supervision and monitor to the emission of air pollutants of thermal power plants.

This Standard’s concentrations of pollutants emission are qualitative concentrations.

This Standard was initially published in 1991, first-time revised in 1996 and second-time revised in 2003.

The main contents of this revision are as followed:

- ADJUST the concentration limits of the air pollutants’ emission;
- DEFINE the time limits for current thermal power boilers to reach stricter level of concentration limits of emission;
- CANCEL the provision about maximum allowable emission rate of sulfur dioxide for entire plant;
- ADD concentration limits of emission of gas boilers’ air pollutants;
- ADD specific emission limits of air pollutants.

Water pollutants, odor pollutants and environmental noise discharged by thermal power plants are subject to the national emission standard of pollutants. The identification, treatment and disposition of producing solid waste are subject to the national standard of controlling solid waste pollution.

From the date of implementation of this Standard, the emission control of air pollutants

for thermal power plants must be enforced according to provisions of this Standard. And the relevant provisions of national emission standard “*Emission standard of air pollutants for thermal power plants*” (GB13223—2003) are no longer required.

For those items of air pollutants not yet specified in this Standard, the local provincial government can formulate emission standard of local pollutants; to those items of air pollutants which have been specified in this Standard, the local provincial government level can formulate stricter emission standard of local pollutants.

This Standard was organized and initiated by the Ministry of Environmental Protection Science and Technology Standards Division.

This Standard was drafted by organizations: Chinese Research Academy of Environmental Sciences, and State Power Environmental Protection Research Institute.

This Standard was approved by the Ministry of Environmental Protection on July 18, 2011.

This Standard shall be implemented from January 1, 2012.

This Standard shall be explained by the Ministry of Environmental Protection.

Emission standard of air pollutants for thermal power plants

1 Scope

This Standard defines the requirement of concentration limits, supervision and monitor to the emission of air pollutants for thermal power plants; and related provisions of implementation and supervision of standard.

This Standard applies to air pollutants emission management for current thermal power plants and for the plant project's environmental influential assessment, environmental engineering, acceptance of environmental protection and after go-into-production.

This Standard applies to the coal-fired power boilers of which output of single-unit is more than 65 t/h, except stoker furnace and layer burner; various coal-powder power boilers with different capacities; oil-fired and gas-fired power boilers of which output of single-unit is more than 65t/h; and various gas turbine power plants with different capacities. For those boilers using fuel of gangue, biomass, oil shale, petroleum coke etc. and of which output of single-unit is more than 65 t/h, the requirement of circulating fluidized bed-boilers' pollutants emission control in this Standard shall be referred for implementation. Gas turbines of integrated gasification combined cycle (IGCC) carry out gas turbine's emission limits of burning gas in this Standard.

This Standard is not applicable to the thermal power plants fired with domestic wastes and hazardous wastes.

This Standard applies to lawful behavior of pollutants emission. For new location set-up for pollution source and the management of current pollution source within special protected, they shall be carried out according to "*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*", "*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 by Solid Wastes*", "*The Law of the People's Republic of China on Evaluation*

Management method of automatic monitoring pollution sources (Administrative command of national environmental protection NO.28)

Management method of environmental monitoring (Administrative command of nationally environmental protection No.39)

3 Terms and Definitions

The following terms and definitions apply to this Standard.

3.1

Thermal power plant

Power plant of burning solid, liquid or gaseous fuel

3.2

Standard condition

The condition of gas, at temperature of 273K and at pressure of 101 325 Pa, is called "standard condition" for short. The specified concentration of air pollutants in this Standard refers to the value of dry gas, under this Standard Condition.

3.3

Oxygen content

When burning the fuel, the extra free oxygen containing in the gas is generally expressed by dry-volume-percentage.

3.4

Existing plant

It refers to those thermal power boilers and gas turbines that go-into-production or environmental influential assessment has been approved, before the implementation date of this Standard.

3.5

New plant

It refers to those thermal power boilers and gas turbines that environmental influential assessment has been approved for new construction, construction-extension and construction-modification, after the implementation date of this Standard.

3.6

Arch fired furnace

The burning space of W-shape flame that is formed when the burner is placed on furnace vault of front-or-back walls; fuel and air are jetted downward; after rotating 180 degrees, combustion products are discharged upward from the middle of front-and-back vault.

3.7

Key region

According to the requirements of environmental protection, it refers to the regions where have high density of land development; have weakness of environmental carrying capacity; or have little atmospheric environmental capacity, fragile ecological environment; and are easy to occur serious air pollution; so that controlling emission of air pollutants is strictly required.

3.8

Special limitation for air pollutants

It refers to the emissions' limits of air pollutants which is set for preventing and curing the regional air pollution, improving the quality of environment, reducing the emissions intensity of air pollution, and more-strictly controlling the behavior of sewage disposal. The emissions' control level of the limits shall reach international advanced level or leading level, and it is applicable to key regions.

4 Requirements of controlling emissions of air pollutants

4.1 From July 1, 2014, current thermal power boilers and gas turbines shall meet Table1 - specified emissions' limits of blackness of soot, sulfur dioxide, nitrogen oxide, and smoke.

4.2 From January 1, 2013, new thermal power boilers and gas turbines shall meet Table1 - specified emissions' limits of blackness of soot, sulfur dioxide, nitrogen oxide, and smoke.

4.3 From January 2, 2015, coal-fired boilers shall meet Table1 - specified emissions'

conducting supervision-inspecting to enterprises, the environmental protection department of all-government-level may sample immediately or monitor and test the results on the spot - as the basis of judging if the sewage disposal behavior complies with emission standards and management measures of implementing relevant environmental protection.

References and Original Chinese Documents

[1] GB 13223-2011: Emission standard of air pollutants for thermal power plants.

<http://www.chinesestandard.net/Default.aspx?PDF-English-ID=GB%2013223-2011>

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----