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

GB 25466.1-2025

Emission standard of air pollutants for lead and zinc industry

铅、锌工业大气污染物排放标准

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1 Scope

Foreword

This document was issued on 2 December 2025 by the the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Standardization Administration of the People's Republic of China and takes effect on 1 January 2027.

It is a GB standard without the /T suffix: compliance is mandatory in China.

The document runs to 15 pages in translation. The identification, the dates, the table of contents and the clauses reproduced on this page are taken from the standard itself.

GB 25466.1-2025 Emission standard of air pollutants for lead and zinc industry English, Anglais, Englisch, Inglés, ???

Emission standard of air pollutants for lead and zinc industry

1 Scope

GB 25466.1-2025 is the Chinese emission standard for air pollutants from the lead and zinc industry, effective 1 January 2026. Lead and zinc smelting is one of the heaviest emitters of both sulfur dioxide and heavy metals in China, and lead in air is a public health question rather than an industrial one, which is why this sector has its own standard and why the limits in it are among the tightest applied to any Chinese industry. The document sets the emission control requirements for organised and fugitive releases, the monitoring requirements and the rules for implementation and supervision, and it applies to existing plants as well as to the environmental impact assessment, the abatement design and the

completion acceptance of new projects. For a smelter, a refinery or an equipment supplier operating in China, this is the standard an environmental permit and an inspection are written against.

This standard specifies the control requirements, monitoring, and supervision and management requirements for air pollutant emissions from the lead and zinc industry.

This standard applies to the management of air pollutant emissions from existing lead and zinc industrial enterprises or production facilities, as well as to the environmental impact assessment of construction projects in the lead and zinc industry, the design of environmental protection facilities, the acceptance of completed environmental protection facilities, the issuance of pollutant discharge permits, and the management of air pollutant emissions after these projects are put into operation.

2 Normative References

The following documents, or the clauses cited therein, are referenced in this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including all amendments) applies. If other documents are superseded, modified, or revised by new ones, the new documents apply.

GB/T 4754-2017 Industrial Classification for National Economic Activities

GB/T 15264 Ambient Air - Determination of Lead - Flame Atomic Absorption Spectrophotometry

GB/T 16157 Determination of Particulates and Sampling Methods of Gaseous Pollutants from Exhaust Gas of Stationary Sources

HJ/T 42 Stationary Source Emission - Determination of Nitrogen Oxides - Ultraviolet Spectrophotometric Method

HJ/T 43 Stationary Source Emission - Determination of Nitrogen Oxides - Hydrochloric Naphthylethylenediamine Spectrophotometric Method

HJ/T 55 Technical Guidelines for Fugitive Emission Monitoring of Air Pollutants

HJ/T 56 Stationary Source Emission - Determination of Sulfur Dioxide - Iodometric Method

HJ 57 Stationary Source Emission - Determination of Sulfur Dioxide - Constant Potential Electrolysis Method

HJ/T 64.1 Stationary Source Emission - Determination of Cadmium - Flame Atomic Absorption Spectrophotometric Method

HJ/T 64.2 Stationary Source Emission - Determination of Cadmium - Graphite Furnace Atomic Absorption Spectrophotometric Method

HJ/T 64.3 Stationary Source Emission - Determination of Cadmium -

p-Azobenzenediazoaminoazobenzene Sulfonic Acid Spectrophotometric Method

HJ 75 Specifications for Continuous Emissions Monitoring of Flue Gas Emitted from Stationary Sources (SO₂, NO_x, Particulates)

HJ 77.2 Ambient Air and Waste Gas - Determination of Polychlorinated Dibenzo-p-dioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) - Isotope Dilution HRGC-HRMS

HJ/T 397 Technical Specifications for Stationary Source Emission Monitoring

HJ 533 Ambient Air and Waste Gas - Determination of Ammonia - Nessler's Reagent Spectrophotometric Method

HJ 538 Stationary Source Emission - Determination of Lead - Flame Atomic Absorption Spectrophotometry (Trial)

HJ 539 Ambient Air - Determination of Lead - Graphite Furnace Atomic Absorption Spectrophotometry

HJ 540 Stationary Source Emission - Determination of Arsenic - Silver Diethyldithiocarbamate Spectrophotometric Method

HJ 542 Ambient Air - Determination of Mercury - Sulfhydryl Cotton Enrichment-Cold Atomic Fluorescence Spectrophotometry (Trial)

HJ 543 Stationary Source Emission - Determination of Mercury - Cold Vapor Atomic Absorption Spectrophotometry (Trial)

HJ 544 Stationary Source Emission - Determination of Sulfuric Acid Mist - Ion Chromatography

HJ 629 Stationary Source Emission - Determination of Sulfur Dioxide - Non-dispersive Infrared Absorption Method

HJ 657 Ambient Air and Waste Gas - Determination of Metals in Particulate Matter - Inductively Coupled Plasma Mass Spectrometry

HJ 685 Stationary Source Emission - Determination of Lead - Flame Atomic Absorption Spectrophotometry

HJ 692 Stationary Source Emission - Determination of Nitrogen Oxides - Non-dispersive Infrared Absorption Method

HJ 693 Stationary Source Emission - Determination of Nitrogen Oxides - Constant Potential Electrolysis Method

3 Terms and Definitions

For the purposes of this standard, the following terms and definitions apply.

3.1

lead and zinc industry

The industry involved in producing lead and zinc metal mineral products through mining and beneficiation processes, and producing lead, zinc metal products, and other valuable metals using lead and zinc metal mineral products as the main raw materials (with the proportion of imported secondary resources containing lead and zinc not exceeding 40%). It includes Lead and Zinc Mining (B0912) and Lead and Zinc Smelting (C3212) in GB/T 4754-2017.

3.2

lead smelting

The production process of manufacturing lead metal products and other valuable metals using lead metal mineral products as the main raw materials, including production stages such as material preparation, smelting, acid making, fire refining, electrolysis, and comprehensive recovery of valuable metals.

3.3

zinc smelting

The production process of manufacturing zinc metal products and other valuable metals using zinc metal mineral products as the main raw materials, including production stages such as material preparation, roasting, acid making, hydrometallurgical leaching, solution purification, electrolysis, and comprehensive recovery of valuable metals.

3.4

secondary resources containing lead and zinc

Lead paste, lead filter cake, hot-dip galvanizing slag, zinc-containing fume dust, and other lead- or zinc-containing materials that meet process blending requirements, excluding metal mineral products.

3.5

rotary kiln using oxygen enriched combustion

A rotary kiln that uses oxygen-enriched gas (oxygen-containing air with an oxygen content higher than 30%) for combustion.

3.6

fugitive gas collecting

The process of collecting fugitive gas escaping from the feeding and discharging ports and slagging ports of smelting furnaces.