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

HJ 2057-2018

**Technical specification for wastewater treatment of lead
smelting
(English Translation)**

Issued on: August 13, 2018

Implemented on: September 1, 2018

Issued by: Ministry of Ecology and Environment

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Foreword

In order to implement the Law of the People's Republic of China on Environmental Protection Law and the Law of the People's Republic of China on the Prevention and Control of Water Pollution, Prevent and control environmental pollution, improve the quality of ecological environment, standardize the construction and operation management of lead smelting wastewater treatment projects, and develop this standard quasi.

This standard specifies the technical requirements for the design, construction, acceptance, operation and maintenance of lead smelting wastewater treatment projects.

This standard is a guiding standard.

This standard is the first release.

This standard was formulated by the Ministry of Ecology and Environment.

This standard is mainly drafted by. Beijing Mining and Metallurgy Technology Group Co., Ltd., Central South University.

This standard is approved by the Ministry of Ecology and Environment on August 13, 2018.

This standard has been implemented since September 1, 2018.

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

Technical specification for lead smelting wastewater treatment engineering

1 Scope of application

This standard specifies the technical requirements for the design, construction, acceptance, operation and maintenance of lead smelting wastewater treatment projects.

This standard is applicable to the construction and operation management of lead smelting wastewater treatment project, and can be used as the environmental impact of lead smelting construction project.

Technical basis for evaluation, environmental protection facility design, construction, acceptance and operation management.

This standard does not apply to recycled lead smelting.

2 Normative references

The contents of this standard refer to the terms in the following documents. Valid versions of undated references, including modifications Single) applies to this standard.

GB 5085.1 Identification of hazardous wastes Corrosion identification GB 5085.3 Identification criteria for hazardous wastes GB 5086.1 Solid waste leaching toxicity leaching method GB 12348 industrial enterprise boundary noise standard GB 18597 Hazardous Waste Storage Pollution Control Standard GB 18598 Hazardous Waste Landfill Pollution Control Standard GB 18599 General industrial solid waste storage and disposal site pollution control standards GB/T 22580 Special environmental conditions Technical requirements for plateau electrical equipment Low-voltage switchgear and control equipment GB 25466 Lead and zinc industrial pollutant discharge standards GB 50009 Building Structure Load Specification GB 50013 Outdoor Water Supply Design Code GB 50014 Outdoor Drainage Design Code GB 50015 Building Water Supply and Drainage Design Code GB 50016 Building Design Fire Code GB 50019 Industrial building heating ventilation and air conditioning design specification GB 50034 Architectural Lighting Design Standard GB 50052 design specification for power distribution system GB 50053 20KV and

below substation design specifications GB 50054 Low Voltage Distribution Design Specification GB 50057 lightning protection design code for buildings GB 50059 35kV~110kV substation design specification GB/T 50087 industrial enterprise noise control design specification GB 50093 automation instrument engineering construction and quality acceptance specification GB 50141 Water supply and drainage structure engineering construction and acceptance specification GB 50168 Electrical installation engineering cable line construction and acceptance specifications GB 50169 Electrical installation engineering grounding device construction and acceptance specifications GB 50187 General Plan for Design of Industrial Enterprises GB 50189 Public Building Energy Efficiency Design Standard GB 50191 seismic design code for structures GB 50194 Safety requirements for power supply at construction site GB 50204 Concrete Structure Engineering Construction Quality Acceptance Specification General specification for construction and acceptance of GB 50231 mechanical equipment installation engineering GB 50236 Field equipment, industrial pipeline welding engineering construction specifications GB 50243 Ventilation and air conditioning engineering construction quality acceptance specification GB 50254 Electrical installation engineering Low-voltage electrical installation and acceptance specifications GB 50257 Electrical installation engineering explosion and fire hazard environment electrical installation construction and acceptance specifications GB 50268 Water supply and drainage pipeline engineering construction and acceptance specifications GB 50275 Fan, compressor, pump installation engineering construction and acceptance specifications GB 50334 Urban Wastewater Treatment Plant Project Quality Acceptance Specification GB 50988 Non-ferrous metal industry environmental protection engineering design specification GB J 22 Factory Mine Road Design Code GB J 50141 Code for construction and acceptance of water supply and drainage structures GBZ 1 industrial enterprise design hygiene standard GBZ 2.1 Occupational exposure limits for hazardous factors in industrial locations, Part 1. Chemically harmful factors GBZ 2.2 Occupational exposure limits for hazardous factors in industrial sites, Part 2. Physical factors CJJ 60 Urban Wastewater Treatment Plant Operation, Maintenance and Safety Technical Regulations HJ/T 92 Water Pollutant Total Monitoring Technical Specification HJ/T 212 pollution source online automatic monitoring (monitoring) system data transmission standard HJ/T 353 water pollution source online monitoring system installation technical specification HJ/T 354 water pollution source online monitoring system acceptance technical specification Technical specification for operation and maintenance of HJ/T 355 wastewater online monitoring system HJ 557 Solid Waste Leaching Toxicity Leaching Method Horizontal Oscillation HJ .2008 sewage filtration treatment engineering technical specification "Measures for Completion and Acceptance of Construction Projects (Engineering)" (Project Construction [1990] No. 1215) Measures for the Administration of Environmental Protection Completion Acceptance of Construction Projects (Order No. 13 of the State Environmental Protection Administration) Interim Measures for the Check and Acceptance of Environmental Protection for Construction Projects (Guohuan Environmental Impact Assessment [2017] No. 4) Technical

Requirements for Standardized Remediation of Sewage Discharges (Trial) (Huan Jian [1996] No. 470) Measures for the Administration of Hazardous Waste Transfer Joint Orders (Order No. 5 of the State Environmental Protection Administration)

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Waste acid waste acid

Refers to heavy metal ions such as suspended solids, lead, arsenic, etc. produced during the acid washing and purification process of lead smelting flue gas.

A dilute sulfuric acid solution of contaminants such as impurities.

3.2 Acidic wastewater containing heavy metals

Waste water containing heavy metal ions, acids, suspended solids and other pollutants produced during the lead smelting process.

3.3 Lead smelting wastewater lead smelting wastewater

Refers to the various contaminated production wastewater generated during the lead smelting production process.

4.1.1 Waste acid

The waste acid is mainly produced in the acid purification section. The main pollutants are suspended solids, heavy metal ions, fluoride and other harmful substances.

Impurities.

4.1.2 Acidic wastewater containing heavy metals

Acidic wastewater containing heavy metals is mainly produced in the acid purification section, electric defogging, slag, wet dust collection, wet process, Ground rinsing, laboratory, and slag reservoir percolation, etc., the main pollutants are heavy metal ions, acids, suspended solids and so on.

4.1.3 Initial rain

The initial rainwater is mainly smoke (ash) dust enriched in the surface, roof and equipment of the plant during the lead smelting process.

The initial runoff from the formation of rainwater, the main pollutants are pH, suspended matter, heavy metal ions and so on.