

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

HJ 2001-2018

Replacing HJ 2001-2010

General technical specification of ammonia flue gas desulfurization

(English Translation)

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Foreword

In order to carry out "Law of the People's Republic of China on Environmental Protection" and "Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution" and other laws and regulations, prevention and control ring Pollution, improve the quality of the environment, regulate the ammonia flue gas desulfurization project construction and operation management, the development of this standard.

This standard specifies the ammonia flue gas desulfurization project design, construction, acceptance, operation and maintenance of technical requirements.

This standard was first released in 2010, this is the first revision.

The main content of this revision.

- Expand the scope of the applicable industries;
- Perfecting and supplementing the general technical requirements applicable to various industries, eliminating the special technical requirements applicable only to the thermal power industry;
- According to the technical development, the technical contents of flue gas system and absorption system were mainly adjusted, which supplemented the equipment selection requirements;
- Enrich the operation and maintenance of technical content;
- Improve the information appendix.

This standard was revised by the Ministry of Environmental Protection Science and Technology Standards Division.

This standard is mainly drafted by. China Environmental Protection Industry Association, Jiangsu Jiangnan Environmental New Century Co., Ltd., Beijing Institute of Labor Protection, Asia Pacific Environmental Protection Co., Ltd.

This standard MEP.2018 January 15 approved.

This standard since May 1, 2018 implementation.

This standard is interpreted by the MEP.

Ammonia flue gas desulfurization project general technical specifications

1 Scope of application

This standard specifies the ammonia flue gas desulfurization project design, construction, acceptance, operation and maintenance of technical requirements.

This standard applies to ammonia flue gas desulfurization project can be used as construction project environmental impact assessment, environmental protection facilities design, construction, acceptance and technical basis for operation and management.

The technical requirements proposed by this standard are general and special requirements to implement the relevant technical specifications of the industry.

2 Normative references

This standard references the following documents in the terms. For undated references, the effective version applies to this standard.

GB/T 150 pressure vessel GB/T 311.1 Insulation coordination - Part 1. Definitions, principles and rules GB/T 311.2 Insulation coordination - Part 2. Guidelines for use GB/T 535 ammonium sulfate GB/T 536 liquid anhydrous ammonia GB 4053 fixed steel ladders and platform safety requirements GB/T 4272 equipment and pipe insulation technology GB 5083 General safety and health design of production equipment GB 5749 drinking water health standards Water quality - Determination of fluoride - Ion selective electrode method GB 8569 solid chemical fertilizer packaging GB/T 8570 Determination of liquid anhydrous ammonia Water quality - Determination of chloride - Silver nitrate titration GB 12348 industrial enterprises noise emission standards GB/T 12801 production safety and health requirements General GB/T 13148 stainless steel clad steel welding technology requirements Determination of chloride ion in industrial circulating cooling water and boiler water GB/T Determination of Particulate Matter and Gaseous Pollutants in Exhaust of Fixed Pollution Sources GB/T 16157 GB 16297 Integrated Air Pollutants Emission Standard GB 18218 Hazardous chemicals identification of major hazards GB 18241.1 Rubber lined - Part

1. Equipment anti-corrosion lining GB 18382 fertilizer labeling content and requirements GB/T.19923 urban sewage recycling industrial water quality GB/T 23349 fertilizer arsenic, cadmium, lead, chromium, mercury ecological indicators GB 50009 Building structural load specifications GB 50011 Code for seismic design of buildings GB 50013 outdoor water supply design specifications GB 50014 outdoor drainage design specifications Code for design of building water supply and drainage GB 50016 architectural design code for fire protection GB 50019 Heating Ventilation and Air Conditioning Design Code Code for Design of Factory and Mine Roads GB 50033 architectural lighting design standards GB 50040 Power Machinery Basic Design Specification GB 50046 industrial building anti-corrosion design specifications GB 50050 industrial circulating cooling water treatment design specifications GB 50052 for power distribution system design specifications GB 50057 lightning protection design specifications GB 50058 explosion and fire hazard electrical installations design specification GB/T 50064 AC electrical installations overvoltage protection and insulation coordination design specifications GB 50065 AC electrical installations grounding design specifications GB 50084 automatic sprinkler system design specifications GB/T 50087 Industrial Enterprise Noise Control Design Code GB 50093 Automatic Instrumentation Engineering Construction and Quality Acceptance Specification GB 50116 automatic fire alarm system design specifications GB 50140 fire extinguisher configuration design specifications GB 50160 petrochemical design fire safety specifications GB 50187 General design of industrial enterprises GB 50219 water spray fire extinguishing system design specifications GB 50222 interior design fire protection specifications GB 50231 Mechanical Equipment Installation Engineering Construction and Acceptance Common Specifications GB 50243 ventilation and air conditioning construction quality acceptance criteria GB 50254 Installation of electrical installations low voltage electrical construction and acceptance specifications Specification for Construction and Acceptance of Electrical Lighting Fixtures for Installation of Electrical Installations GB 50300 construction quality acceptance uniform standards Design code for fire protection bank of GB 50351 tank GB 50489 General layout of chemical industry transport design specifications Specification for detection and alarm of flammable gases and toxic gases in petrochemical industry GB/T 50655 chemical plant steam system design specifications Fire protection water supply and fire hydrant system specification GB 51245 Industrial building energy-saving design uniform standards Design Code for Roads and Mines GBZ 1 industrial design health standards GBZ 2.1 Occupational exposure limits for hazardous agents in the workplace - Part 1. Chemical hazards GBZ 2.2 Occupational exposure limits for hazardous agents in the workplace - Part 2. Physical factors GBZ/T 194 workplace protection against occupational poisoning Hygienic engineering protective measures norms AQ/T 3033 Chemical Construction Project Safety Design Management Guidelines AQ 3035 Hazardous chemicals Hazardous sources Safety monitoring General technical specifications AQ 3036 Dangerous Chemical Hazardous Area Tank Farm Site Safety Monitoring Equipment Setup Specification DL/T 5044 Power Engineering DC Power System Design Technical Specification DL/T 5403 thermal power plant flue gas

desulfurization project to adjust the trial transport and quality acceptance assessment procedures HG 1-88 ammonia HG 20652 tower design technical specifications HG/T 2451 Equipment Corrosion-resistant rubber lining HG/T 2640 glass flake construction technology HG/T 2784 industrial ammonium sulfite HG/T 2785 industrial ammonium bisulfate HG/T 3797 glass flake-lined clay HG/T 20696 FRP chemical equipment design requirements HJ/T 75 fixed pollution sources flue gas emissions continuous monitoring technical specifications HJ/T 76 fixed pollution source flue gas emissions continuous monitoring system technical requirements and testing methods HJ 533 Ambient and exhaust air - Determination of ammonia - Nessler 's reagent spectrophotometric method JB/T 10989 wet flue gas desulfurization equipment for equipment demister JT 617 Rules for the Transport of Dangerous Goods by Car NB/T 47003.1 steel welded pressure vessel NB/T 47041 tower container SH/T 3007 petrochemical storage and transportation system design specifications of the tank farm SH 3047 Code for Design of Occupational Safety and Health in Petrochemical Enterprises SH/T 3053 petrochemical plant planning general layout design TSG 21 Pressure Vessel Safety Technology Supervision Regulations "Hazardous Chemicals Safety Regulations" (State Council Decree No. 591) "Safety Supervision and Management Measures for Construction Projects of Hazardous Chemicals" (No. 45 of the State Administration of Work Safety) Provisions on Supervision and Management of Major Hazardous Chemicals Hazardous Chemicals (No.40 of the State Administration of Work Safety)

3.1 Ammonia flue gas desulfurization process ammonia flue gas desulfurization

Refers to the amino material as an absorbent to remove flue gas SO₂ and other acid gas wet flue gas desulfurization process, referred to as the ammonia method.

3.2 Desulfurization project desulfurization project

Refers to the facilities, equipment, components and systems integration required to remove SO₂ and other sour gases from the flue gas with absorbent.

3.3 Absorbent

Refers to the desulfurization project for the removal of SO₂ and other acid gas reactants.

3.4 Absorber

Refers to the desulfurization project to achieve absorbent and SO₂ and other acidic gases reaction facilities.

3.5 By-product

Refers to the absorber and flue gas SO₂, O₂ and other substances generated after the reaction.