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**Technical specifications for slaughterhouse and meat
processing wastewater treatment projects
(English Translation)**

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Foreword

To implement the Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on Water Pollution Prevention and Control, and the Environmental Protection Management of Construction Projects Regulations and other relevant laws and regulations, regulate the construction and operation management of slaughter and meat processing wastewater treatment projects, prevent and control environmental pollution, and protect this standard is formulated to protect the environment and human health.

This standard specifies the relevant technical requirements for the design, construction, acceptance and operation management of slaughter and meat processing wastewater treatment engineering.

This standard is the first release.

This standard was formulated by the Science and Technology Standards Department of the Ministry of Environmental Protection.

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This standard has been implemented since March 1, 2011.

This standard is explained by the Ministry of Environmental Protection.

Technical specification for slaughtering and meat processing wastewater treatment engineering

1 Scope of application

This specification specifies the technical requirements for the design, construction, acceptance and operation management of slaughter and meat processing wastewater treatment engineering.

This code is applicable to wastewater treatment projects for new construction, reconstruction and expansion of slaughterhouses and meat processing plants.

Technical basis for evaluation, feasibility study, engineering design, construction management, completion acceptance, environmental protection acceptance and operation management.

2 Normative references

The contents of this specification refer to the terms in the following documents. For undated references, the valid version applies to this standard.

GB 8978 Integrated Wastewater Discharge Standard GB 12694 Meat Processing Factory Hygienic Specifications GB 13457 Water pollutant discharge standard for meat processing industry GB 18078 Meat joint processing factory health protection distance standard GB 50014 Outdoor Drainage Design Code GB 50015 Building Water Supply and Drainage Design Code GB 18596 Pollutant discharge standards for livestock and poultry breeding GB 4284 Contaminant control standard for agricultural sludge GB 5084 Farmland Irrigation Water Quality Standard GB 14554 Odor Pollutant Discharge Standard GB 50009 Building Structure Load Specification GB 50016 Building Design Fire Code GB 50052 design specification for power distribution system GB 50054 Low Voltage Distribution Design Specification GB 50069 Water supply and drainage engineering structure design specification GB 50187 General Plan for Design of Industrial Enterprises GB 50194 Construction site safety requirements for construction and supply of electricity GB 50303 Building electrical engineering construction quality acceptance specification GB 50317 Pig slaughtering and segmentation workshop design specification GB J 22 Factory Mine Road Design Code GB 3096 Acoustic Environmental Quality Standard GB 12348 Environmental

noise emission standards for industrial enterprises GB J 87 Industrial Enterprise Noise Control Design Specification GB/T 18883 indoor air quality standard GB/T 18920 Urban Wastewater Recycling Urban Miscellaneous Water Quality GB/T 4754 National Economic Industry Classification HJ/T 15 Environmental Protection Product Technical Requirements Ultrasonic Open Channel Sewage Flowmeter HJ/T 96 pH water quality automatic analyzer technical requirements HJ/T 101 Ammonia Nitrogen Water Quality Analyzer Technical Requirements HJ/T 103 Total Phosphorus Water Quality Automatic Analyzer Technical Requirements HJ/T 212 pollution source online automatic monitoring (monitoring) system data transmission standard HJ/T 242 environmental protection product technical requirements belt press filter HJ/T 245 Environmental Protection Products Technical Requirements Hanging Packing HJ/T 246 Environmental Protection Products Technical Requirements Suspended Packing HJ/T 250 Environmental Protection Products Technical Requirements Rotary Fine Grille HJ/T 251 environmental protection product technical requirements Roots blower HJ/T 252 environmental protection product technical requirements, microporous aerator HJ/T 262 environmental protection product technical requirements grille decontamination machine HJ/T 263 Environmental Protection Product Technical Requirements Jet Aerator HJ/T 281 environmental protection product technical requirements diffuser aerator HJ T 283 environmental protection product technical requirements chamber filter press and plate and frame filter press HJ/T 335 environmental protection product technical requirements sludge concentration belt dewatering machine HJ/T 336 Environmental Protection Product Technical Requirements Submersible Sewage Pump HJ/T 337 Environmental Protection Products Technical Requirements Biological Contact Oxidation Complete Set HJ/T 353 Water Pollution Source Online Monitoring System Installation Technical Specification (Trial) HJ/T 354 water pollution source online monitoring system acceptance technical specification Technical specification for operation and assessment of HJ/T 355 water pollution source online monitoring system HJ/T 369 Environmental Protection Product Technical Requirements Dosing Device for Water Treatment CJ 3082 Sewage discharged into urban sewer water quality standards Design code for CECS 97 blast aeration system "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) Measures for the Automatic Monitoring and Control of Pollution Sources (Order No. 28 of the State Environmental Protection Administration)

3 Terms and definitions

The following terms and definitions apply to this standard.

Slaughterhouse Refers to the place where the livestock are slaughtered and the primary processing is carried out.

Meat processing factory Refers to the place used for the production and processing of animal meat food.

Slaughtering process Refers to the rim washing during slaughter, leaching before slaughter, scalding or peeling after slaughtering, cavity opening, halving, disintegration, visceral washing and workshop washing and so on.

Slaughterhouse wastewater Refers to the wastewater generated during the slaughter process, mainly containing blood, oil, minced meat, animal hair, undigested food and feces, urine and so on.

Meat processing

Refers to the process of washing meat, processing, freezing, etc. during meat processing.

Meat processing wastewater Refers to the wastewater generated during the processing of meat, mainly containing minced meat, fat, blood, protein, oil and so on.

Waste water reuse wastewater reuse it refers to the wastewater resource utilization after deep treatment.

Odor pollutants

Refers to all gaseous substances that stimulate the olfactory organs to cause unpleasantness and damage to the living environment. (GB 14554-1993)

4.1 Contaminants

The main pollutants contained in the slaughter and meat processing wastewater include CODCr, BOD5, SS, ammonia nitrogen and animal and vegetable oils.

4.2.1 Amount of slaughter wastewater

The amount of slaughter wastewater can be calculated according to the following formula.

$$Q=q \times S \quad (1)$$

Where. Q--the amount of slaughter wastewater produced daily, m³/d;

q--The amount of animal waste water produced by slaughter, m³/head or m³/100;

S--The total number of animals slaughtered daily, head/d or 100/d.

The amount of animal waste water produced by the unit can be valued according to the data in Table 1 and Table 2.

Table 1 Production of animal waste water by unit slaughter (animals) Unit. m³/head

Slaughter animal type cattle, pigs and sheep the amount of animal waste water produced by the slaughter unit is 1.0-1.5 0.5-0.7 0.2-0.5