

HJ

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Technical specifications of the biological contact oxidation sewage treatment works (English Translation)

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Table of Contents

Foreword

1 Scope of application

2 Normative references

3 Terms and definitions

3.1 Biological contact oxidation process

3.2 Contact oxidation tank Biological contact oxidation tank

3.3 Filler Bio-media/carrier

3.4 Biofilm Biofilm

3.5 Aeration system

3.6 Aeration area

3.7 Filler layer bio-media layer

3.8 Stable layer

3.9 Filling volume load Bio-media/carrier volumetric loading rate

3.10 Ratio of air to water

3.11 Filling ratio Bio-media/carrier filling ratio

3.12 Pretreatment

3.13 Pre-processing Front process

4 General requirements

5 Design water quantity and design water quality

5.1 Design water volume

5.2 Design water quality

5.3 Contaminant removal rate

6 Process design

6.1 General requirements

6.2 Pre-treatment, post-treatment and pre-treatment

6.3 Contact oxidation process

Foreword

Standardize biological contact oxygen for the implementation of the Environmental Protection Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Control of Water Pollution this standard is formulated for the construction and operation management of chemical wastewater treatment projects,

prevention and control of environmental pollution, protection of the environment and human health.

This standard specifies the process design, main process equipment and materials of wastewater treatment engineering using contact oxidation method and its combined process.

Technical requirements for inspection and process control, construction and acceptance, operation and maintenance.

This standard is the first release.

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

This standard is mainly drafted by. China Environmental Protection Industry Association (Water Pollution Control Committee), Tianjin Environmental Protection Science Research Institute, School of Environmental Science and Engineering, Nankai University, Beijing Sande Environmental Protection Group Co., Ltd., Beijing Construction Engineering Jinyuan Environmental Protection Development Co., Ltd.

Tsinghua University Environmental College, Hangzhou Tianyu Environmental Engineering Industrial Co., Ltd.

This standard was approved by the Ministry of Environmental Protection on October 24, 2011.

This standard has been implemented since January 1, 2012.

This standard is explained by the Ministry of Environmental Protection.

Biological contact oxidation wastewater treatment engineering technical specification

1 Scope of application

This standard specifies the work of sewage treatment engineering using biological contact oxidation method (hereinafter referred to as contact oxidation method) and its combined process.

Technical requirements for art design, main process equipment and materials, testing and process control, construction and acceptance, operation and maintenance.

This standard is applicable to domestic sewage or industrial wastewater treatment projects using contact oxidation method and its combined process, which can be used as an environmental impact.

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

2 Normative references

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

GB 3096 Acoustic Environmental Quality Standard GB 12348 Environmental noise emission standards for industrial enterprises General rules for safety and health requirements of GB 12801 production process GB 18918 Pollutant discharge standard for urban sewage treatment plants GB 50014 Outdoor Drainage Design Code GB 50015 Building Water Supply and Drainage Design Code GB 50016 Building Design Fire Code GB 50040 power machine basic design specification GB 50053 10kV and below substation design specifications GB 50187 General Plan for Design of Industrial Enterprises GB 50204 Concrete Structure Engineering Construction Quality Acceptance Specification GB 50222 Building interior decoration design fire protection specification General specification for construction and acceptance of GB 50231 mechanical equipment installation engineering GB 50268 Water supply and drainage pipeline engineering construction and acceptance specifications GB 50334 Urban Wastewater Treatment Plant Engineering Quality Acceptance Specification GB J 87 Industrial Enterprise Noise Control Design Specification GB J 141 Code for construction and acceptance of water supply and drainage structures GBZ 1 industrial enterprise design hygiene standard GBZ 2 workplace occupational exposure limit CJ 3025 Urban sewage treatment plant sewage sludge discharge standard CJJ 60 Urban Wastewater Treatment Plant Operation, Maintenance and Safety Technical Regulations HJ/T 15 Environmental Protection Product Technical Requirements Ultrasonic Open Channel Sewage Flowmeter HJ/T 91 Surface Water and Wastewater Monitoring Technical Specifications 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 242 environmental protection product technical requirements belt press filter for sludge dewatering HJ/T 245 Environmental Protection Products Technical Requirements Hanging Packing HJ/T 246 Environmental Protection Products Technical Requirements Suspended Packing HJ/T 251 environmental protection product technical requirements Roots blower HJ/T 252 environmental protection product technical requirements, microporous aerator HJ/T 263 Environmental Protection Product Technical Requirements Jet Aerator HJ/T 278 environmental protection product technical requirements single-stage high-speed aeration centrifugal blower HJ/T 279 environmental protection product technical requirements push flow submersible mixer 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 353 Water Pollution Source Online Monitoring System Installation Technical Specification (Trial) HJ/T 354 Water Pollution Source Online Monitoring System Acceptance Technical Specification (Trial) Technical Specifications for

Operation and Assessment of HJ/T 355 Water Pollution Source Online Monitoring System
(Trial) HJ/T 377 Environmental Protection Products Technical Requirements Chemical
Oxygen Demand (CODCr) Water Quality Online Automatic Monitor Measures for the
Administration of Environmental Protection Acceptance for Completion of Construction
Projects (National Environmental Protection Agency, 2001)

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Biological contact oxidation process

Refers to an aerobic biofilm wastewater treatment method, which consists of a filler immersed in sewage, a biofilm on the surface of the filler, and an aeration system.

The composition of the pool and the pool. Under aerobic conditions, the sewage is in full contact with the biofilm fixed on the surface of the filler and removed by biodegradation.

The organic matter, nutrient salts, etc. in the sewage will purify the sewage.

3.2 Contact oxidation tank Biological contact oxidation tank

Refers to the cell body used to install the packing and complete the biological treatment process of the wastewater.

3.3 Filler Bio-media/carrier

Refers to a solid medium or carrier that is installed in a contact oxidation pond to provide habitat and growth for microorganisms while immobilizing microorganisms.

3.4 Biofilm Biofilm

Refers to a membranous microbial aggregate with a sewage purification function attached to the surface of the filler.

3.5 Aeration system

Refers to a system that delivers compressed air to an aerobic contact oxidation pond or oxygenates the sewage, by air compressors, pipes, valves, and releases and so on.

3.6 Aeration area

Refers to the area where the bottom of the contact oxidation tank can be used to arrange the aeration device.