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**Leachate treatment project technical specification of municipal
solid waste landfill
(English Translation)**

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Foreword

To implement the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes and the Law of the People's Republic of China on the Prevention and Control of Water Pollution this standard is formulated for the environmental pollution of landfill leachate, improving environmental quality and ensuring

human health.

This standard specifies the technical requirements for the design, construction, acceptance and operation management of leachate pollution control engineering in domestic waste landfills.

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 (Urban Domestic Waste Treatment Committee), Urban Construction Research Institute, China National Academy of Environmental Sciences (Solid Waste Pollution Control Technology Research Institute), Beijing Dongfang Tonghua Technology Co., Ltd., Weierli Environmental Engineering (often State) Co., Ltd., Beijing Tiandiren Environmental Protection Technology Co., Ltd., Siemens (Tianjin) Water Technology Engineering Co., Ltd., Beijing Guohuan Rhine Ring Engineering Technology Co., Ltd.

This standard was approved by the Ministry of Environmental Protection on February 3, 2010.

This standard has been implemented since April 1, 2010.

This standard is explained by the Ministry of Environmental Protection.

Technical specification for leachate treatment in domestic landfill (trial)

1 Scope of application

This standard specifies the general requirements, process design, inspection control, construction acceptance, and operation of the leachate treatment project of the domestic waste landfill.

Technical requirements such as maintenance.

This standard is applicable to landfill leachate treatment project of domestic waste landfill, and can be used as environmental impact assessment, engineering consultation, design and construction, the technical basis for environmental protection acceptance and operation and management after completion.

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 12348 Environmental noise emission standards for industrial enterprises GB 14554 Odor Pollutant Discharge Standard GB 16297 Integrated emission standards for

atmospheric pollutants GB 16889 Domestic Waste Landfill Pollution Control Standard GB 50007 Building Foundation Design Specification GB 50009 Building Structure Load Specification GB 50010 concrete structure design specification GB 50011 seismic design code for buildings 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 Heating, Ventilation and Air Conditioning Design Code GB/T 50033 Architectural lighting design standard GB 50034 Architectural Lighting Design Code GB 50037 Building Ground Design Specification GB 50052 design specification for power distribution system GB 50053 10 kV and below substation design specifications GB 50054 Low Voltage Distribution Design Specification GB 50057 lightning protection design code for buildings GB 50067 Fire protection specification for garages, and parking lots GB 50069 Water supply and drainage engineering structure design specification GB 50128 vertical cylindrical welded storage tank construction and acceptance specifications GB 50140 Building Fire Extinguisher Configuration Design Specification 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 50334 Urban Wastewater Treatment Plant Engineering Quality Acceptance Specification HGJ 229 Industrial equipment, pipeline anti-corrosion engineering construction and acceptance specifications GB 50352 General rules for civil building design GB J 22 Factory Mine Road Design Code GB J 93 Industrial Automation Instrumentation Engineering Construction and Acceptance Specifications GBZ 1 industrial enterprise design hygiene standard Design code for CECS 138 water supply and drainage engineering reinforced concrete pool structure CJJ 17 Technical Specifications for Domestic Waste Sanitary Landfill JGJ 67 Office Building Design Code HG 20508 Control Room Design Regulations HG 20509 instrument power supply design regulations HG 20511 Signal Alarm, Safety Chain System Design Regulations HG/T 20573 Distributed Control System Engineering Design Regulations JTG D40 Highway Cement Concrete Pavement Design Code JTG D50 Highway Asphalt Pavement Design Code TJ 36 Industrial Enterprise Design Hygiene Standard Measures for the Administration of Environmental Protection Acceptance for Completion 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 established in GB/T.20103-2006 apply to this standard.

3.1 Leachate

In the process of stacking and landfilling, due to physical, biological and chemical effects such as compaction and fermentation, it is also in precipitation and other external water.

A liquid containing organic or inorganic components produced by percolation.

3.2 Conditioning tank holding tank of leachate

A structure with homogenized water quality, adjusted water storage capacity or combined with leachate pretreatment function installed in front of the leachate treatment facility.

3.3 Microfiltration filter (MF)

The process of separating particles from 0.01 μm to several microns using pressure as a driving force.

[GB/T.20103-2006, definition 5.2.2]

3.4 Ultrafiltration filter (UF)

A process that separates solute and particulates with molecular weights ranging from a few hundred to several million using pressure as a driving force.

[GB/T.20103-2006, definition 5.2.1]

3.5 Nanofiltration (NF)

Pressure-driven, membrane separation process for removing multivalent ions, partially monovalent ions, and organic matter with a molecular weight of 200 to 1,000.

[GB/T.20103-2006, definition 4.2.3]

3.6 Reverse osmosis reverse osmosis (RO)

At a pressure above the osmotic pressure difference, a solvent (such as water) enters the low pressure side of the membrane through the semipermeable membrane, while other components in the solution (eg the salt is blocked on the high pressure side of the membrane and discharged with the concentrated solution to achieve an efficient separation process.

[GB/T.20103-2006, definition 4.2.2]

3.7 Membrane module membrane module

A practical device consisting of a membrane element, a housing, an inner coupling, an end plate and a sealing ring.

[GB/T.20103-2006, definition 2.2.3]