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**Technical specifications for electroplating industry wastewater
treatment
(English Translation)**

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Foreword

To implement the "Environmental Protection Law of the People's Republic of China", "Water Pollution Prevention and Control Law of the People's Republic of China" Law on Prevention and Control of Foreign Pollution, Regulations on Environmental Protection Management of Construction Projects and Emission Standards for Electroplating Pollutants, Standardizing Electroplating Wastewater Treatment Project Construction this standard is formulated and operated to prevent environmental pollution, protect the environment and human health.

This standard specifies the technical requirements for the design, construction, acceptance and operation of electroplating wastewater treatment engineering.

This standard is the first release.

Appendix A of this standard is an informative annex.

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

This standard is mainly drafted by. Beijing Zhongbing North Environmental Technology

Development Co., Ltd. and China Ordnance Industry Group Corporation.

This standard was approved by the Ministry of Environmental Protection on December 17, 2010.

This standard has been implemented since March 1, 2011.

This standard is explained by the Ministry of Environmental Protection.

Electroplating wastewater treatment engineering technical specification

1 Scope of application

This standard specifies the technical requirements for the design, construction, acceptance and operation of electroplating wastewater treatment engineering.

This standard applies to the whole process management of technical solution selection, engineering design, construction, acceptance, operation, etc. of electroplating wastewater treatment engineering.

The operation management of the electroplating wastewater treatment project has been established, which can be used as the completion ring for environmental impact assessment, environmental protection facility design and construction, and construction projects.

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 15562.2 Environmental protection graphic sign solid waste storage (disposal) field GB 18597 Hazardous Waste Storage Pollution Control Standard GB 21900 Electroplating Pollutant Emission 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 50141 Water supply and drainage structure construction and acceptance specifications 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 50268 Water supply and drainage pipeline engineering construction and acceptance specifications GB 50303 Building electrical engineering construction quality acceptance specification GB J 13 Outdoor Water Supply Design Code

GB J 22 Factory Mine Road Design Code GB J 87 Industrial Enterprise Noise Control Design Specification GB J 136 Electroplating Wastewater Treatment Design Code HJ/T 212 pollution source online automatic monitoring (monitoring) system data transmission standard HJ/T 283 environmental protection product technical requirements chamber filter press and plate and frame filter press HJ/T 353 Water Pollution Source Online Monitoring System Installation Technical Specification (Trial) Technical specification for operation and maintenance of HJ/T 355 wastewater online monitoring system HJ/T 314 Cleaner Production Standard Electroplating Industry "Measures for Completion and Acceptance of Construction Projects (Engineering)" (Project Construction [1990] No. 1215) Measures for the Administration of Environmental Protection Acceptance for Completion of Construction Projects (Order No. 13 of the State Environmental Protection Administration)

3 Terms and definitions

The following terms and definitions apply to this standard.

Electroplating wastewater of electroplating Refers to all kinds of wastewater discharged during electroplating production, including plating pickling wastewater, rinsing wastewater, passivation wastewater, scrubbing floor and plates Waste water, waste water from "run, run, drip, leak" caused by improper operation or management, self-use of water in wastewater treatment process, and laboratory Drainage, etc.

Wastewater containing heavy metals Refers to wastewater containing cadmium, chromium, lead, nickel, silver, copper, zinc and other metal ions emitted in electroplating production. According to the heavy metals contained in the wastewater the elements are also referred to as cadmium-containing wastewater, chromium-containing wastewater, lead-containing wastewater, nickel-containing wastewater, silver-containing wastewater, copper-containing wastewater, and zinc-containing wastewater.

Electroplating mixed wastewater mix-wastewater of electroplating Refers to the different plating of electroplating production and the mixing of different pollutants. Includes pretreated cyanide-containing wastewater and chromium-containing waste water.

Electroplating sludge Refers to the chemical sludge produced during the treatment of electroplating wastewater.

4.1 Classification of electroplating wastewater

Electroplating wastewater is generally classified according to the type of pollutants contained in the wastewater or the type of heavy metal ions, such as acid-base wastewater, cyanide-containing wastewater, chromium-containing wastewater, Contains heavy metal wastewater, etc. When the wastewater contains more than one type of pollutant (such as cyanide cadmium, both cyanide and cadmium), it is still generally A classification of pollutants; when there are several methods for the same plating, it can be subdivided into

small categories according to different processes, such as copper pyrophosphate wastewater and sulfur.

Acid copper plating wastewater, etc. The wastewater in which different plating species and different pollutants are mixed together is collectively referred to as electroplating mixed wastewater.

4.2 Main pollutants and concentration ranges

The main pollutants of electroplating wastewater and their mass concentration range can be referred to Appendix A.

4.3 Design water quantity and design water quality

4.3.1

The design water quantity and design water quality of the new electroplating wastewater treatment project shall be based on the approved environmental impact assessment documents and consider certain the design margin is determined.

The measured water quality can also be measured data, wherein the designed water volume can be determined according to the measured value of 110% to 120%. No actual test strip for analogy, the analogy data can be used; when there is no analog data, it can be estimated as 85%~95% of the total water consumption of the electroplating workshop (production line).

The amount of water treated. For the absence of water quality data, refer to the range of major pollutant concentrations given in Table 1.

4.3.2

The influent concentration of wastewater entering the treatment facility shall meet the design influent requirements. If the requirements are not met, pretreatment shall be carried out.

4.3.3

After the wastewater treatment, the water quality requirements for the reuse process should be met. Wastewater discharge should comply with GB 21900 or local discharge the standard stipulates or meets the requirements of the environmental impact assessment approval document.

5.1 General provisions

5.1.1

Electroplating enterprises should promote clean production, improve cleaning efficiency, and reduce the amount of wastewater generated. Conditional enterprises should return after wastewater treatment use.