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PEOPLE'S REPUBLIC OF CHINA**

GB 24188-2009

Quality of sludge from municipal wastewater treatment plant

城镇污水处理厂污泥泥质

(English Translation)

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Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and Definitions
4 Requirements
4.1 General provisions
4.2 Argillaceous
5.1 Sampling Methods
5.2 Monitoring and Analysis
6 Total Mercury
7 Total Lead
8 Total chromium
9 Total arsenic
10 Total copper
11 Total zinc
12 Total nickel
13 Mineral oil

Foreword

4.2.1 of this standard is mandatory, the rest are recommended.

The standard proposed by the Ministry of Housing and Urban-Rural Development of the People's Republic of China.

This standard is under the jurisdiction of the Ministry of Housing and Urban Water Supply and Drainage Products Standardization Technical Committee.

1 Scope

This standard specifies the control target urban sewage treatment plant sludge and muddy limits.

This standard applies to municipal wastewater treatment plant sludge.

Sludge residential area of sewage treatment facilities, may refer to this standard.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 7959 stool sanitary standards Determination of GB/T 17134 Soil quality total arsenic diethyl dithiocarbamate spectrophotometry silver GB/T 17135 Determination of potassium borohydride total mass of soil arsenic - Silver Nitrate Spectrophotometry GB/T Soil quality Determination of cold atoms 17136 total mercury absorption spectrophotometry GB/T 17137 Flame atomic mass of total chromium in soil absorption spectrophotometry Flame atomic GB/T 17138 Soil quality copper, zinc absorption spectrophotometry GB/T 17139 Determination of soil quality flame atomic absorption spectrophotometry of nickel GB/T 17141 Soil quality lead and cadmium by graphite furnace atomic absorption spectrophotometry GB 18918 Municipal Wastewater Treatment Plant Pollutant Emission Standards CJ/T 221 urban sewage treatment plant sludge test methods CJ3082 sewage discharged into the city sewer water quality standards

3 Terms and Definitions

The following terms and definitions apply to this standard.

Moisture content of urban sewage treatment plant sewage purification process in different semi-solid or solid substances, not including screenings, scum Grit and gravel.

Especially after stabilization of municipal wastewater treatment plant sludge dewatering treatment or after treatment to achieve quality standards.

4.1 General provisions

4.1.1

stabilization treatment of urban sewage treatment plant sludge, should be consistent with GB 18918 of the relevant provisions.

4.1.2

urban sewage treatment plant sludge disposal should not be arbitrary and should not be designated to sludge treatment, disposal in any area other than emissions.

4.1.3

Water discharged into urban sewers CJ3082 shall comply with the requirements.

4.2 Argillaceous

4.2.1

urban sewage treatment plant sludge muddy basic control targets and limits should meet the requirements of Table 1, Table 1, item 3, item 4 applies in new construction, renovation, expansion of urban sewage treatment plants.

Table 1 argillaceous basic control targets and limits

No. basic control index limits 1 pH 5 ~ 10 2 moisture /% 0.01 4 total number of bacteria (MPN/kg dry sludge) 5 sampling and monitoring

5.1 Sampling Methods

Adopt a multi-point sampling mixed samples shall be representative, the sample quality is not less than 1kg.

5.2 Monitoring and Analysis

Table 3 execution.

Table 3 Monitoring and Analysis

Reference indicators for monitoring analysis methods source 1 pH glass electrode method CJ/T 221 2 water content gravimetric method CJ/T 221 3 fecal coliform bacteria values fermentation GB 7959

4 Number of bacteria plate count CJ/T 221

5 Total cadmium

Graphite furnace atomic absorption spectrophotometry GB/T 17141 After pressure digestion atomic absorption spectrophotometry a After pressure digestion inductively coupled plasma atomic emission spectrometry High pressure microwave digestion atomic absorption spectrophotometry High pressure microwave digestion inductively coupled plasma atomic emission spectrometry CJ/T 221

6 Total Mercury

Cold atomic absorption spectrophotometry GB/T 17136 After pressure digestion and Atomic Fluorescence Spectrometry a CJ/T 221

Table 3 (Continued)

Reference indicators for monitoring analysis methods source

7 Total Lead

Graphite furnace atomic absorption spectrophotometry GB/T 17141 After pressure digestion and Atomic Fluorescence Spectrometry a High pressure microwave digestion and Atomic Fluorescence Spectrometry After pressure digestion atomic absorption spectrophotometry After pressure digestion inductively coupled plasma atomic emission spectrometry High pressure microwave digestion atomic absorption spectrophotometry High pressure microwave digestion inductively coupled plasma atomic emission spectrometry CJ/T 221

8 Total chromium

Flame atomic absorption spectrophotometry a GB/T 17137 After pressure digestion inductively coupled plasma atomic emission spectrometry High pressure microwave digestion inductively coupled plasma atomic emission spectrometry After pressure digestion diphenyl hydrazine spectrophotometry High pressure microwave digestion diphenyl hydrazine spectrophotometry CJ/T 221

9 Total arsenic

Diethyl dithiocarbamate spectrophotometry silver Potassium borohydride - silver nitrate spectrophotometry GB/T 17134 GB/T 17135 After pressure digestion and Atomic Fluorescence Spectrometry a After pressure digestion inductively coupled plasma atomic emission spectrometry High pressure microwave digestion inductively coupled plasma atomic emission spectrometry CJ/T 221

10 Total copper

Flame atomic absorption spectrophotometry GB/T 17138 After pressure digestion atomic absorption spectrophotometry a After pressure digestion inductively coupled plasma atomic emission spectrometry High pressure microwave digestion atomic absorption spectrophotometry High pressure microwave digestion inductively coupled plasma atomic emission spectrometry CJ/T 221

11 Total zinc

Flame atomic absorption spectrophotometry GB/T 17138 After pressure digestion atomic absorption spectrophotometry a After pressure digestion inductively coupled plasma atomic emission spectrometry High pressure microwave digestion atomic absorption spectrophotometry High pressure microwave digestion inductively coupled plasma atomic emission spectrometry CJ/T 221