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Safety regulation for tailings pond

尾矿库安全规程

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces AQ2006-2005 "Safety Technical Regulations for Tailings Pond". Compared with AQ2006-2005, except for structural adjustments and editorial changes, the main technical changes of this standard are as follows:

--- Deleted part of the normative references, and only quoted GB 16423, GB 50135 and GB 50191 (see Chapter 2, Chapter 2 of AQ2006-2005);

---Modified terms and definitions such as tailings ponds (see Chapter 3, Chapter 3 of AQ2006-2005), and added wet tailings ponds and dry tailings ponds. Terms and definitions such as tailings pond (see Chapter 3);

--- Revise the grading standards of the first-class tailing pond and the second-class tailing pond (see 4.5,

4.1 of AQ2006-2005);

---In the analysis method of the anti-sliding stability of the tailings dam slope, the simplified Bishop method and the corresponding minimum safety factor are added (see 5.3.16);

---Added relevant requirements for dynamic seismic calculation of tailings dams (see 5.3.17);

---Modified the flood control standard of tailing pond (see 5.4.1,

5.4.2 of AQ2006-2005);

--- Deleted the content of "tailing pond safety" and "tailing pond utilization and reuse after tailing pond closure" (see Chapter 8 and Chapter 10 of AQ2006-2005);

---Added the content of "tailing pond mining" and "emergency management of production and business units" (see Chapter 7 and Chapter 10). This standard was proposed and managed by the Ministry of Emergency Management of the People's Republic of China. This standard is issued for the first time. Safety regulations for tailings pond

1 Scope

GB 39496-2020 is the Chinese national standard on safety regulation for tailings pond, in the field of mining and minerals. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 11 October 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 September 2021. Classification: ICS 73, CCS Z61. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the construction, production operation, stoping, closure, safety inspection, emergency management of production and business units, safety evaluation, etc. of tailings ponds Safety requirements. This standard applies to tailings ponds within the territory of the People's Republic of China.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this document. For undated references, the latest version (including all amendments) applies to this document.

GB 16423 Safety Regulations for Metal and Nonmetal Mines

GB 50135 High-rise structure design standard

GB 50191 Code for seismic design of structures

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Tailings pond A place used to store metal and non-metal mines for ore separation and discharge tailings.

3.2 Wet tailings pond Inbound tailings have natural fluidity, and the tailings reservoir that discharges tailings by hydraulic conveyance.

3.3 Dry tailings pond The tailings in the reservoir do not have natural fluidity, and the tailings reservoir with mechanical discharge of tailings and no water in the reservoir under non-flood operation conditions is adopted.

3.4 Full storage capacity The volume of space enclosed by the elevation level of the dam crest, below the outer slope of the tailings dam, and above the bottom of the reservoir

(excluding the volume of the dam constructed by non-tailings).

3.5 Effective storage capacity The volume of space below the outer surface of the tailings dam and above the bottom of the silo for storing tailings (including suspended tailings slurry).

3.6 Flood storage capacity The volume of space that can accumulate flood water above the initial flood level and below the design flood level.

3.7 Total storage capacity Design the full storage capacity in the final state.