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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 10268-2008

Replacing GB/T 10268-1988

Uranium ore concentrate

铀矿石浓缩物

(English Translation)

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Foreword

This revised standard adopts ASTM C967.2002a "uranium ore concentrate." this standard and ASTM C967.2002a compared to the main technical differences are. impurity content is not fine limit, the titanium wider than 0.02% ASTM C967. The 2002a 0.01%, vanadium, carbon, thorium strict requirements in ASTM C967.2002a standards.

This standard replaces GB/T 10268-1988 "uranium ore concentrate." this standard and GB/T 10268-1988 compared to the main changes are as follows.

- Increasing the foreword;
- Original "subject matter and scope" to "range", and the content has been modified;
- Added "normative references";
- Added "Terms and Definitions";
- 4.1.1.1 The Triuranium uranium content (mass fraction) by a greater than 75% to be greater than 80%;
- 4.1.3 adds support for insoluble uranium nitrate content control requirements;
- 4.1.4 adds support for extractable organic content control requirements;
- Impurity content limit requirements of the "standard value" 4.1.5 to read "not fine limits", "maximum limit" to "not reject limits" (See Table 1);
- 4.1.5 Table 1 "not fine limits" of phosphorus, fluorine, iron, calcium, zirconium, magnesium six elements of the original strict standards;
- 4.1.5 Table 1 "does not reject limits" halogen, fluorine, iron, arsenic, calcium five elements to maintain the original standards, the use of water and other elements the ASTM C967.2002a standard "does not reject limits";

--- 4.2.2 adds support for uranium ore concentrate liquidity requirements;

--- "5 Acceptance rules" remove the weighing requirements.

GB/T 11848.1 ~ 11848.16 "chemical analysis of uranium ore concentrate and atomic absorption spectrometry method" is to support the standard Documents.

The standard proposed by China National Nuclear Corporation.

This standard by the National Standardization Technical Committee of nuclear energy.

This standard was drafted. two hundred seventy-two uranium nuclear industry limited liability company.

1 Scope

This standard specifies the uranium ore concentrate general technical requirements, acceptance rules and test methods, packaging, labeling, transportation and storage requirements.

This standard applies to uranium content (mass fraction, dry basis) over 65% of the uranium ore concentrate.

This standard does not include radiation protection and occupational health requirements, compliance with this standard does not relieve users to understand and comply with all applicable Possession, transport or use nuclear materials laws and regulations relating to the responsibility of international, national and local.

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/T 4960.3 term nuclear fuel and nuclear science and technology of nuclear fuel cycle
GB/T 11848.1 ~ 11848.16 uranium ore concentrate chemical analysis and atomic absorption spectrometry method
GB 11806 Regulations for the Safe Transport of Radioactive Substances
GB/T 13701 standard single gas mass spectrometry analysis of uranium isotopes

3 Terms and Definitions

GB/T 4960.3 and identified the following terms and definitions apply to this standard.

By physical or chemical means uranium containing uranium ores and other materials

obtained by high crude product containing uranium, ore concentrate products, including Triuranium and yellow cake two products.

4.1.1 Uranium ore concentrate uranium content (mass fraction, dry basis)

4.1.1.1

Triuranium uranium content should be greater than 80%.

4.1.1.2

yellowcake uranium content should be greater than 65%.

4.1.2 The percentage of isotope content of natural uranium isotopes, ^{235}U abundance of $0.7105\% \pm 0.0005\%$ (mass fraction).

4.1.3 nitric acid insoluble uranium. content of insoluble in nitric acid should be less than 0.10% (mass fraction of uranium-based).

4.1.4 extractable organic matter. extractable organic matter content should be less than 0.10% (mass fraction, wet basis).

4.1.5 impurity content should be less than specified in Table 1, the maximum content limits.

4.1.6 The supplier shall provide to the demand side of uranium ore concentrate in the presence of toxic elements [Hg, Cd, Cr (VI), Pb, Ni, Be, Ag] of content.

4.2 Physical Requirements

4.2.1

size. All product samples shall pass to 6.35mm aperture sieve.

4.2.2

Mobility. uranium ore concentrate should have good liquidity.

4.2.3

uranium ore concentrate is not allowed to introduce inclusions hydrometallurgical processing of uranium ore outside.