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

GB/T 16660-2025

Replacing GB/T 16660-2008

Graphical symbols for coal preparation plants

选煤厂用图形符号

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 16660-2008 "Graphic Symbols for Coal Preparation Plants". Compared with GB/T 16660-2008, the main differences are structural adjustments and...

Aside from editorial changes, the main technical changes are as follows.

- a) A new chapter on "Terms and Definitions" has been added (see Chapter 3);
- b) The names and English translations of some equipment (facilities) have been changed (to be consistent with GB/T 7186-2023);
- c) The term "jigging machine" (see 2-01, 4.2.1 of the 2008 edition) has been changed, with

"c) moving screen" now listed separately as "moving screen jig," and the following changes have been made.

Graphical symbols (see 2-02);

d) The term "Heavy Media Separator" was modified by deleting "a) Second Product", "b) Third Product", and "c) Shallow Tank"; and "Heavy Media Separator" was renamed to "Heavy Media Separator (Lump Coal)" (see 2-03), 2008 edition, 4.2.2;

e) Added "shaking bed" to "b) three products" (see 2-06);

f) The graphic symbol for "water medium hydrocyclone" (see 2-08, 4.2.8 of the 2008 edition) and the graphic symbol for "high-frequency vibrating screen" (see...) have been changed.

(See section 4.3.18 of the 2008 edition, 3-19), graphic symbol for "dryer" (see section 4.4.2 of the 2008 edition, 4-02), and "manual-selective belt conveyor" Graphical symbols (see 5-10, 4.5.10 of the 2008 edition), graphic symbols for "distributor" (see 6-03, 4.6.3 of the 2008 edition), and "storage" the graphic symbol for "coal yard" (see 6-08, 2008 edition, 4.6.9);

g) The following have been added. "Photoelectric Recognition Intelligent Sorting Machine" (see 2-10), "Layered High-Frequency Vibrating Screen" (see 3-20), and "Spiral Chute" (see 5-15).

"Duplicate" (see 5-21), "Water tank" (see 6-07), "Coal receiving pit" (see 6-10), "Quantitative loading system" (see 6-11), "Car wash machine" (See 6-17), "Air Cannon" (see 6-18), "Magnetic Material Content Meter" (see 6-26), "Demagnetizer" (see 6-27), "Concentration Meter" (see 6-18) 6-29, "Turbidity meter" (see 6-30), "Compaction device" (see 6-31), "Inspection robot" (see 6-32), "Intelligent system" (see 6-29) 6-33);

h) The term "concentrator" has been changed (see 3-05, 4.3.5, 2008 edition) to separate "b) deep cone" as "deep cone concentrator" (see 3-06), and changed the graphic symbol; at the same time, changed the graphic symbol of the condenser, renaming "a) rake type" to "a) ordinary", and added

b) High efficiency;

i) The term "electric hoist" has been changed to "lifting hoist," and "a) manual hoist" has been added (see 5-01, see 4.5.1 of the 2008 edition);

j) The term "belt conveyor" has been changed to include "b) tubular" (see 5-09, 4.5.9 of the 2008 edition);

k) The term "medium bucket" (see 4.6.6 in the 2008 version) has been changed to "material bucket" (see 6-06), and a letter identifier has been added;

l) The term "4.6.7 Mixing Bucket" (see 4.6.7 in the 2008 version) has been deleted and replaced with the "Bucket" symbol (see 6-06), which is used by letter identification.

m) The term "Preparer, Preprocessor" (see 4.6.12 in the 2008 version) has been changed to "Pulp Preparer" (see 6-13);

n) The term "ash analyzer (online)" (see 4.6.18 in the 2008 version) has been changed to "coal quality analyzer," and "b) ash water" has been added.

"Instrument", "c) Comprehensive Coal Quality Analyzer" (see 6-22);

o) The "valve" symbol (see 6-23, 2008 edition 4.6.19) has been changed and a new symbol has been added;

p) The terms "banana screen" (see 4.1.8 in the 2008 edition) and "tank separator" (see 4.2.6 in the 2008 edition) have been removed.

This document modifies and adopts ISO 561:1989, "Graphical symbols for coal preparation plants." Compared with ISO 561:1989, this document has many technical differences.

Technical differences are indicated by a vertical line (|) in the margin of the relevant clauses. A summary of these technical differences and their reasons can be found in [link to table].

Appendix B.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Coal Association.

This document is under the jurisdiction of the National Coal Standardization Technical Committee.

1 Scope

This document specifies the graphic symbols for commonly used equipment (facilities) in coal preparation plants.

This document applies to coal preparation plant flowcharts and other charts, textbooks, designs, and construction documents used in coal preparation.

2 Normative references

This document has no normative references.

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 Rules for Symbol Drawing

The following rules shall apply when drawing graphic symbols.

---The geometric shape of the graphic symbols is standardized, but their dimensions are not specifically defined; appropriate proportions should be considered when using them.

---For equipment (facilities) graphic symbols not specified in this document, they may be deduced or derived by referring to this document, but artistic means should be used to strive for accuracy.

Simplify and visualize, rather than describe its shape;

---Graphic symbols are represented by thick lines; see Appendix C for the method of representing flow lines.

---Flow lines generally enter from the top or left side of the graphic symbol and exit from the bottom or right side;

--- The number of arrows indicating the material feeding and discharging of equipment (facilities) should match the actual number.

5.1 Crushing and screening

Table 1 defines the names and graphic symbols of crushing and screening equipment (facilities).

Table 1 Basic Symbols for Crushing and Screening

Number, Name, Graphic Symbol 1-01 crusher, breaker