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

GB/T 2893.3-2010

**Graphical symbols -- Safety colours and safety signs -- Part 3:
Design principles for graphical symbols used in safety signs
(English Translation)**

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1 Scope

This Part of GB/T 2893 gives the design principles, criteria, guidelines for graphic symbols for safety signs.

This Part applies to the design of graphic symbols in the safety signs, which are specified in GB/T 2893.1. It also applies to the design of the elements of safety signs, in the product safety labels, which are specified in GB/T 2893.2.

2 Normative references

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

GB/T 2893.1-2004 Graphical symbols - Safety colors and safety signs - Part 1:

Design principles for safety signs in workplaces and public areas (ISO 3864-1:2002, MOD)

GB/T 2893.2 Graphical symbols - Safety colors and safety signs - Part 2: Design principles for product safety labels (GB/T 2893.2-2008, ISO 3864-2:2004, MOD)

GB/T 15565 (all parts) Graphical symbols - Terms

3 Terms and definitions

The terms and definitions, which are established in GB/T 15565, apply to this document.

For convenience, some terms in GB/T 15565 are repeated below.

3.1

Critical detail

Symbolic details, which are essential to the understanding of graphic symbols OR the completeness of graphic symbols.

[GB/T 15565.1-2008, Definition 3.11]

3.2

Determinant

A symbol element, that is attached to a general symbol or other graphic symbol, to provide some certainty or additional information. It cannot be used alone.

[GB/T 15565.1-2008, Definition 3.7]

4.1 Preparation stage

Before designing graphic symbols for safety signs, it shall:

- a) Describe the information to be expressed by the graphic symbols, in detail and without error;
- b) Confirm whether it is necessary to design new graphic symbols for safety signs (that is, confirm that no suitable graphic symbols currently exist) (see Chapter 5);

- c) Clarify the safety information to be conveyed by the safety sign, which is formed by the graphic symbol;
- d) First determine the characteristics of the target group, including the general skills and ability of the target group, to understand the safety information, which is conveyed by the specific safety sign; then design the graphic symbol for this target group;
- e) Assign meaning and function to safety signs, in accordance with the provisions of Chapter 6;
- f) Determine the type of signs, which are required for the safety sign, according to the provisions of 7.1.

4.2 Design stage

4.2.1

Consideration should be given to whether the designed graphic symbol can also be used in other types of safety signs, as well as the resulting impact on the design of the symbol (for example, the influence of adding a negative straight bar to the graphic symbol originally designed for the instruction sign, on the design of the symbol; the influence on the design of the symbol, when the graphic symbol is used in the restricted space of the triangle of the warning sign, etc.).

4.2.2

The design of graphic symbols shall comply with the design criteria, which is specified in Chapter 7.

4.2.3

It should use the design guidelines, which are given in Appendix A.

5 Review of current standards

5.1

The designer shall determine:

- a) Whether the graphic symbols to be designed have been included in the safety signs, which are stipulated in the current national standards for safety signs, AND other current national standards for graphic symbols;
- b) Whether it is possible to modify or combine graphic symbols, which have similar meanings, to form graphic symbols in the new safety sign;
- c) Whether there are standardized determinants, which are suitable for use with the pictorial symbols for the new safety sign (see 7.8).

5.2

If a specific graphic element is taken from an existing graphic symbol, the meaning conveyed by the graphic element should be the same as its meaning, in the existing graphic symbol.

6 Assigning meaning, function, image content to safety signs

6.1

According to the provisions of GB/T 2893.1, each safety sign shall only be used to convey unique safety information.

6.2

The new safety sign shall be given meaning and function. After the design of the safety sign is completed, the image content, including key details, shall be clear and descriptive (see Figure 1).

Appendix A (Informative)

Supplemental design guidelines

A.1 General

Graphical symbols should contain only those symbolic details, which are necessary to convey the intended information. Graphical symbols should be designed to:

- Brevity, for ease of understanding and reproduction;
- Easily associated with its intended meaning;
- Based on publicly identifiable objects, concepts, actions, or combinations thereof;
- Easy to distinguish from other graphic symbols;
- Only include symbolic details, that help to understand the meaning of the graphic symbols.

When designing graphic symbols, for instruction signs, warning signs, safety condition signs or firefighting facility signs, the designer should pay attention to the fact, that the same symbol may also be used in a prohibition sign, to indicate a prohibited action.

When used in prohibition signs, part of the graphic symbol is obscured by a negative bar. Therefore, if the designed graphic symbol may be used in a prohibition sign, the designer should ensure that the critical details necessary to understand the safety sign are not located in the area, which is obscured by the negative bar, in the prohibition sign.