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

GB/T 36290.2-2018

Process diagrams for power plants -- Part 2: Graphical symbols

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Foreword

GB/T 36290 "Power Station Flowchart" is divided into two parts.

--- Part 1. Drawing specifications;

--- Part 2. Graphical symbols.

This part is the second part of GB/T 36290.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to ISO 14084-2:2015 "Power Station Flowchart Part 2. Graphical Symbols".

The documents of our country that have a consistent correspondence with the international

documents referenced in this part are as follows.

---GB/T 20063 (all parts) Schematic diagram with graphical symbols [ISO 14617 (all parts), IDT]

This part is proposed by the China Electricity Council.

This part is under the jurisdiction of the National Power Plant Process Monitoring and Information Standardization Technical Committee (SAC/TC376).

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Introduction

Overview

This section deals with the preparation of the power station flow chart.

GB , ISO , and IEC drafting standards, including graphical symbols, form the basis of process industry mapping preparation.

The relationship between these standards is shown in Figure 1.

Note. The standard for marking * is the common application standard.

Figure 1 Interrelationship between ISO , IEC and GB mapping standards for power stations

Common application standard

The following criteria.

---ISO 15519 Series. Process Industry Drawing Specification;

---ISO 14617 (all parts). Graphical symbols;

Both are generic, basic class standards for all application areas. Allow technical committees in specialized application areas to add

Refining and publishing standards to serve as a common application standard for ISO 15519 series, ISO 14617 (all parts) or both.

Application field

This section applies to the field of power stations, including various types of conventional fossil fuel power stations, biomass fuel power stations, hydropower stations, wave power stations, wind

Power stations, nuclear power plants, geothermal power stations, solar power stations, osmotic power stations, waste incineration power stations and industrial power stations.

Power station flow chart Part 2. Graphical symbols

1 Scope

This part of GB/T 36290 specifies the graphical symbols for power station flow diagrams and guidelines for creating new graphical symbol examples.

This part is a common application standard for ISO 14617 (all parts).

Hydraulic graphic symbols are shown in ISO 1219-1.

Graphical symbols for electricians are given in IEC 60617.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 10209 Technical product documentation vocabulary terms related to technical drawings, product definitions and related documents (Technical

productdocumentation-Vocabulary-Termsrelatingtotechnicaldrawings,productdefinitionand Relateddocumentation)

ISO 14617 (all parts) Graphical symbols (Graphicalsymbolsfordiagrams)

ISO 15519 Industrial Process Profile Specification
(Specificationfordiagramsforprocessindustry)

3 Terms and definitions

The following terms and definitions defined by ISO 15519 series and ISO 10209 apply to this document.

3.1

Symbol example symbolexample

Graphic symbols created by basic and supplementary graphic symbols.

4.1 General

Graphical symbols shall comply with the ISO 14617 (all parts) standards.

General rules for graphical symbols are given in GB/T 16901.1. The graphical symbol CAX application rules are given in GB/T 16901.2.

Special rules and guidelines for the application of graphical symbols in drawings are given in ISO 15519-1.

4.2 Graphic symbol size

The graphical symbols in this section are represented in a grid system with a modulus of $M = 2.5 \text{ mm}$.

4.3 Creation of a new symbol example

This section covers the most commonly used graphical symbols in power plant drawings. Cannot find what is needed in this section or in ISO 14617 (all parts)

For graphic symbols, the required graphic symbols should be created based on the basic and supplementary graphic symbols in ISO 14617 (see Appendix A).

When the required graphical symbols are not specified in ISO 14617, and cannot be based on basic and supplementary graphical symbols in ISO 14617

When created, a new graphical symbol request shall be made in accordance with ISO /IEC Guide Part 1..2016 Appendix SH.

4.4 Symbols of large/complex objects

In this section, the graphic symbols of large and complex objects such as boilers, steam turbines, flue gas treatment plants, boiler feed pumps, etc. are not marked.

Normalization.

In drawings, large and complex objects should be represented by outlines, and considering the correct placement of the devices that make up the large and complex objects,

Connect and measure graphical symbols such as PCI (process control information; see 18.1).

Appendix B gives examples of large and complex object symbols.

5.1 Overall structure

This section is divided into the following group categories.

---Chapter 6 - Connections and related devices;