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

GB/T 22135-2019

Replacing GB/Z 22135-2008

**Commissioning of electrical, instrumentation and control
systems in the process industry - Specific phases and
milestones**

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foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB /Z 22135-2008 "Marking and Activities during Commissioning of Electronic Equipment and Control Systems in the Process Industry". this standard

Compared with GB /Z 22135-2008, except for editorial changes, the main technical changes are as follows.

--- Modified the scope (see Chapter 1, Chapter 1 of the.2008 edition);

--- Added normative references (see Chapter 2);

--- Modified terms and definitions (see Chapter 3, Chapter 2 of the.2008 edition);

--- Deleted the content of "Suggestions for the use of this technical guidance document" (see Chapter 3 of the.2008 edition);

--- Modify "general preparation before factory acceptance" to "general preparation before device acceptance" (see Chapter 4,.2008 edition of Chapter 4);

--- Modify "construction completed" to "installed in place" (see Chapter 5, Chapter 5 of the.2008 edition);

--- Change "pre-commissioning (mechanical installation completed)" to "pre-commissioning (mechanical completion)" (see Chapter 6, Chapter 6 of the.2008 edition);

--- Modify "commissioning" to "commissioning" (see Chapter 7, Chapter 7 of the.2008 edition);

--- Modify "performance test and factory acceptance" to "performance assessment and device acceptance" (see Chapter 8, Chapter 8 of the.2008 edition);

---Modify "List of documents used in pre-commissioning and commissioning phase" to

"Directory of documents required for pre-commissioning and commissioning phase" (see appendix

A, Appendix A of the.2008 edition);

--- Modify "description of pre-commissioning activities" to "classification and description of pre-commissioning activities" (see Appendix B, Appendix B of the.2008 edition);

--- Amend "Certificate of Mechanical Installation Completion" to "Certificate of Mechanical Completion" (see Appendix C, Appendix C of the.2008 edition);

--- Modify "description of commissioning activities" to "classification and description of commissioning activities" (see Appendix D, Appendix D of the.2008 edition);

--- Modify "factory acceptance certificate" to "device acceptance certificate" (see Appendix E, Appendix E of the.2008 edition);

--- Change "special engineering project" to "special matters in the project" (see Appendix F, Appendix F of the.2008 edition).

This standard uses the translation method to be equivalent to IEC 62337.2012

"Commissioning of electrical, instrumentation and control systems in the process industry.

Stages and Milestones.

The Chinese documents that have a consistent correspondence with the international documents normatively cited in this standard are as follows.

--- GB/T 19678-2005 The composition, content and presentation method of the manual (IEC 62079.2001, IDT).

This standard has made the following editorial changes.

---Include the content of errata IEC 62337.2012/COR1.2012.

This standard is proposed by China Machinery Industry Federation.

This standard is under the jurisdiction of the National Industrial Process Measurement Control and Automation Standardization Technical Committee (SAC/TC124).

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Jidong Technology Co., Ltd., Nanjing Youbei Electric Co., Ltd., Shanghai Fanren Automation System Co., Ltd., Mianyang Weibo Electronics Co., Ltd.

Company, Chongqing Yutong System Software Co., Ltd., Tianjin Yihuan Automation Instrument Technology Co., Ltd., Jiangsu Jack Instrument Co., Ltd., Xi'an

Dongfeng Electric Co., Ltd., Beijing Weisheng Xinyi Technology Co., Ltd., and Anhui Automation Instrument Co., Ltd.

Introduction

In the process industry, turnkey or similar business models that entrust the construction of all installations to contractors are becoming increasingly popular.

Experience has shown that for the smooth handover of the plant, both the owner and the contractor in the process industry need to discuss and clarify their respective responsibilities.

Scope of work and responsibilities undertaken.

This standard is intended to guide the process of this consultation and to promote a common understanding of the scope of each party's work.

Commissioning of electrical, instrumentation and control systems in the process industry each specific phase and milestone

1 Scope

This standard defines specific stages and milestones in the commissioning of electrical, instrumentation and control systems in the process industry (see Figure 1). Pass

By way of example, this standard describes the activities of a project after the "installed in place" milestone and before the installation is accepted by the owner.

Various types of related processes/devices.

NOTE. This standard assumes that the "device acceptance" milestone occurs after the performance appraisal. If the scope of work is reduced, this standard should also be modified appropriately.

Note. Construction work and pre-commissioning work can be carried out at the same time.

Figure 1 Definition of phases and milestones

For pharmaceuticals or other industries with special requirements, in addition to complying with current standards, such as China's GMP standards, other standards should also be complied with.

[Example. GAMP (Good Automated Manufacturing Practice)], regulations and regulatory

requirements.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article

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

ISO 10628-2 Chemical and petrochemical industry graphics - Part 2. Graphical symbols

The composition, content and presentation method of IEC 62079 specification

IEC 62424 Process Control Engineering Notation for P

Data Exchange Requirements

ISA-S7.0.01 Instrument Air Quality Standard

3 Terms and Definitions

The following terms and definitions apply to this document.