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

GB/T 18975.2-2008

**Industrial automation systems and integration -- Integration of
life-cycle data for process plants including oil and gas
production facilities -- Part 2: Data model**

工业自动化系统与集成 流程工厂(包括石油和天然气生产设施)生命周期数据集成
第2部分：数据模型

(English Translation)

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Foreword

GB/T 18975 "Industrial automation systems and integration process plants (including oil and gas production facilities) life cycle data set to "has the following components.

--- Part 1. Overview and fundamental principles;

--- Part 2. Data model.

This part of GB/T 18975 Part 2. This part identical with ISO 15926-2:2003 "Industrial automation systems and integration Process plant (including oil and gas production facilities) life cycle data integration - Part 2. Data Model. " this part of ISO 15926-2 on the technical content and writing format. consistent with 2003, according to GB/T 1.1-2000, made the following Editorial changes, mainly.

a) In order to maintain and easy to understand the original meaning of the English name of the representative of the meaning of the underlined description language EXPRESS with each blackbody English name of the entity, in the present as part of the Chinese translation of the title appears to be marked, in the body predominantly in English marked, in the first or appears when necessary, the Chinese translation of quotes in English formerly known afterwards.

b) each part of the international standard ISO 15926 has been adopted as our national modify standard, its number is GB/T 18975. x, for each part should be in terms of technology and the use of peer to peer. But taking into account the national standard GB/T 18975 matching EXPRESS We need to describe the expression, as well as application software for each model, entities, attributes, properties, functions, etc., in order to complete the application software Practical applications, the problems posed by standard transformation does not occur, this section describes all EXPRESS and by the STEP development tools automatically generate documents and EXPRESS-G diagram international standard number remains unchanged.

This section of Appendix A normative annex; Appendix B, Appendix C, Appendix D, Appendix E is an information appendix.

This part is proposed by China Machinery Industry Federation.

This part of the National Industrial automation systems and integration Standardization Technical Committee (SAC/T 159) focal point.

This section drafted by. China National Institute of Standardization.

This part drafters. Liwen Wu, Liu Shouhua, He Tao, Zhan Junfeng.

GB/T 18975.2-2008/ISO 15926-2:2003 Industrial automation systems and integration process plants (including Oil and gas production facilities) life cycle Data integration - Part 2. Data model

1 Scope

To express technical information process plant computer, GB/T 18975 provisions of this section, a conceptual data model.

This section applies to.

a) the provisions of the technical conditions of production, processing and transportation of raw materials processing.

b) provide for the necessary facilities required for the production and processing of raw materials. It includes the following components.

- Hydrocarbon processing and environmental systems;
- Has been injected gas and water injection system and the environment;
- Oil and gas product delivery system;
- Security and control systems;
- Power generation and supply system;
- Steam generation and supply systems;
- structure;
- Plant and facilities.

c) to provide the necessary production and processing capabilities, raw materials and equipment are described and options, including related materials available in the market and provided Equipment, plant equipment installation and commissioning of feeding information.

d) production and processing operation, including production and consumption of raw materials and processing conditions, the yield and quality.

Maintenance and replacement e) equipment.

This section does not apply to.

- Plant, construction of production equipment and facilities.

2 Normative references

The following documents contain provisions which, through reference GB/T 18975 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 7408 Data elements and interchange formats - Information interchange the date and time notation (GB/T 7408-2005, ISO 8601.

2000, IDT)

GB/T 16262.1 Information technology - Abstract Syntax Notation One (ASN.1) - Part 1.

Specification of basic notation (GB/T 16262.1-2006, ISO/IEC 8824-1:2002, IDT) GB/T 16656.1 Industrial automation systems and integration - Product data representation and the first part of the exchange. Overview and fundamental principles (GB/T 16656.1-2008, ISO 10303-1:1994, MOD) GB/T 16656.11 representation and exchange of industrial automation systems and integration - Product data description method Part 11.

EXPRESS language reference manual (eqvGB/T 16656.11-1996, ISO/DIS10303-11.1993) GB/T 18975.1 Industrial automation systems and integration process plants (including oil and gas production facilities) life cycle data Integration Part 1. Overview and fundamental principles (GB/T 18975.1-2003, ISO/DIS15926-1.2001, MOD) GB/T 18975.2-2008/ISO 15926-2:2003