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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

中华人民共和国国家标准

P GB 50264-2013

Code for design of industrial equipment and pipeline insulation engineering

工业设备及管道绝热工程设计规范

Issued on March 14, 2013 Implemented on October 1, 2013

Issued by Ministry of Housing and Urban-Rural Development of the People's Republic of China

General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

Announcement of Ministry of Housing and Urban-Rural Development of the People's Republic of China

No. 4

Announcement from Ministry of Housing and Urban-Rural Construction about the national standard of *Code for design of industrial equipment and pipeline insulation engineering*

Code for design of industrial equipment and pipeline insulation engineering is now approved as the national standard, with the number of GB 50264-2013, which will be implemented from October 1, 2013. Among them, Article (Clause) 3.0.1 (3), 4.1.6, 4.2.2, 4.3.3 and 4.3.4 are mandatory requirements and must be performed strictly. Former national standard of *Industrial Equipment and Piping Thermal Insulation Engineering Design Specifications* GB 50264-97 shall be repealed simultaneously.

The Code is organized by Standard Rating Research Institute of our department and published and distributed by China Planning Press,

Ministry of Housing and Urban-Rural Development of the People's Republic of China

March 24, 2013

Foreword

This Specification is based on the requirements of Ministry of Housing and Urban-Rural Construction's Notice *On Issuance of 2009 Construction Standards And Norms Formulation and Revise Plan* (Jianbiao [2009] No. 88), and revised by China Petroleum and Chemical Industry Survey and Design Association and China Chengda Engineering Co., Ltd, as well as relevant units on the base of former national standard *Industrial Equipment and Piping Thermal Insulation Engineering Design Specifications* GB 50264-97.

During the revision of this Specification, the revision group has carried out extensive research, conscientiously sum up practical experiences in recent years of China industrial equipment and piping thermal insulation engineering design; collected new thermal insulation material data; coordinated, compared and draw national and international relevant standards; asked for comment in many ways to national relevant units. After repeated discussions and revisions, the final revision was finalized after review.

The Specification is divided into 6 chapters and 5 appendixes, which mainly includes the following contents: General provision, terms and symbols, basic regulations, thermal insulation materials selection, adiabatic calculations, thermal insulation structure design and so on.

The main amendments are as follows:

1. Has increased one chapter of basic provisions;
2. Has modified the requirements of technical parameters value for thermal insulation material thermal conductivity coefficient, density, compressive strength, etc.
3. Has modified some formulas and parameters of adiabatic calculations;
4. Has increased cold thermal insulation calculation and cold thermal insulation structure for spheroid;
5. Has modified the unit cost parameters of thermal insulation structure;
6. Has modified the maximum allowance heat loss
7. Has partly modified, increased and decreased common thermal insulation materials in Appendix A;
8. Has increased Appendix E of the performance of binder, sealant, anti-abrasive,

mastic and polyurethane waterproof membrane

The articles in bold-face marked in the Specification are the mandatory articles, which shall be performed strictly.

Ministry of Housing and Urban-Rural Development is responsible for management of this Specification and interpretation of mandatory requirements, chemical branch of China association for engineering construction standardization is in charge of daily management, and China Chengda Engineering co., LTD takes charge of interpretation of specific technical content. During the implementation of this Specification, each unit should combine it with engineering practice; conscientiously sum up experiences; note the accumulation of information. If there is any need for this Specification to be modified, increased and proposed, please send comments and suggestions to national standard of Industrial Equipment and Piping thermal insulation Engineering Design Specifications Management Group, Safety Technical Quality Management Department, China Chengda Engineering Company Limited (address: No. 279, Tianfu Avenue Middle, Chengdu City, Sichuan Province; Postal Code: 610041; E-mail: cdjsb@chengda. com), for reference of later revise.

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Contents

1 General Provisions

1.0.1 In order to meet the requirements of production process, energy saving and emission reduction, to improve working conditions, improve economic efficiency, ensure thermal insulation engineering design quality, this Specification is developed.

1.0.2 This Specification applies to thermal insulation engineering design of industrial equipment and piping outside surface with temperature of -196℃~850℃.

This Specification does not apply to equipment and pipelines of nuclear energy, aviation, aerospace systems with special requirements, as well as thermal insulation engineering design of building, cold storage and buried pipelines.

1.0.3 Thermal isolation design shall comply with the following requirements:

1 Thermal insulation engineering should correctly choose materials under existing national standards according to environment, material and surface temperature of insulated equipment and pipelines; as for new materials, they should be detected through national legal department before used.

2 Thermal insulation design should conduct adiabatic calculation according to requirements of process, energy saving, anti-condensation, economy, etc., and the thermal insulation structure shall be determined.

1.0.4 The design of the industrial equipments and pipeline thermal insulation engineering, in addition to comply with this Specification, shall be in conformity with the requirements of the current national relevant standards.

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