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National Standard of the People's Republic of China

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工业金属管道工程施工质量验收规范
Code for Acceptance of Construction Quality of Industrial
Metallic Piping

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National Standard of the People's Republic of China

中华人民共和国国家标准

Code for Acceptance of Construction Quality of Industrial

Metallic Piping

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Notice on Publishing the National Standard of "Code for Acceptance of Construction Quality of Industrial Metallic Piping"

"Code for Acceptance of Construction Quality of Industrial Metallic Piping" has been approved as the national standard with a serial number of GB 501840-2011 and will be implemented since December 1, 2011. Articles 3.2.5 (4), 8.5.2 (2), 8.5.4 (2) and 8.5.7 (1) in this Code are compulsory provisions and must be enforced strictly. The original "Standard for Quality Inspection and Assessment of Industrial Metal Pipeline Engineering" (GB 50184-93) shall be abolished simultaneously.

Authorized by the Standard Rating Research Institute, this Code is published and distributed by China Planning Press.

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

December 24, 2010

Foreword

This Code, on basis of "Standard for Quality Inspection and Assessment of Industrial Metal Pipeline Engineering" (GB 50184-93), is reserved and completed by China Petroleum & Chemical Engineering Survey and Design Association and China National Chemical Engineering Third construction Co., Ltd. jointly with organizations concerned according to the requirements of "Notice on Printing and Publishing 'Development and Revision Plan of National Standard for Project Construction 1999'" (JIANBIAO [1999] No. 308) by Ministry of Construction.

During the revision process, the drafting group revised, examined and finalized this Code based on wide investigation and study, earnestly summarizing the practical experiences and making reference to the relevant international standards and foreign advanced standards as well as extensively soliciting for opinions.

This Code comprises 9 chapters and 4 appendixes with the main contents as follows: general provisions, terms, basic requirement, examination of pipe work components and materials, machining of piping, welding and heat-treatment after welding of piping, piping installation, inspection, examination and test for piping, blowing and cleaning of piping, etc..

There have been some significant changes in this Code in the following technical aspects:

1. The non-applicable scope was deleted.
2. The Chapter of Terms was added.
3. The evaluation provisions for "Excellent" grade engineering was deleted and the inspection item was modified to dominant item and general item.
4. Provisions for the permissible deviation of measured value and quantity value of the random inspection point in sub-item project were deleted.
5. Provisions for general quality acceptance of miter elbow, welded lap joint, piping support and hanger fabrication were added.
6. Relevant provisions for quality acceptance of welded connection of branch pipe and main pipe as well as the fillet weld of flange were added.
7. Provisions for the general quality acceptance of zirconium non-ferrous piping, jacketed pipes and valves installation were added.
8. Provisions for the examination grade division of piping welded seam as well as provisions for quality acceptance of technical level of welded seam surface non-destructive examination, welded seam radiographic and ultrasonic examination were added.
9. Requirements for the relevant quality acceptance of hydraulic pressure test and pneumatic test were supplemented.

The provisions printed in bold type in this code are compulsory provisions and must be enforced strictly.

The Ministry of Housing and Urban-Rural Development of the People's Republic of China is in charge of the administration of this code and the explanation of the compulsory provisions, the Branch on Chemical Industry of China Association for Engineering Construction Standardization is in charge of the current management of this code, and the National Administrative Center of Standardization of Chemical Construction is responsible

for the explanation of specific technical contents. During the process of implementing this Code, the relevant opinions and advice, whenever necessary, can be posted or passed on to National Administrative Center of Standardization of Chemical Construction (address: Room 1-1-1107, Benevolence Hotel, No. 28, Huai'an East Road, Qiaodong District, Shijiazhuang City, Hebei Province, 050020, China) for future reference in revision.

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China National Chemical Engineering Third construction Co., Ltd.

Participating development organizations: National Administrative Center of Standardization of Chemical Construction

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Contents

1	General Provision	1
2	Terms	1
3	Basic Requirement	1
3.1	Division for Acceptance of Constructional Quality	2
3.2	Acceptance of Constructional Quality	2
3.3	Procedure and Organization for Acceptance of Constructional Quality	3
4	Examination of Pipe Work Components and Materials	4
5	Machining of Piping	6
5.1	Bending Fabrication	6
5.2	Machining of Rolling Pipe	7
5.3	Flanging Edge of Pipe	8
5.4	Machining of Jacket Pipe	8
5.5	Production of Miter Elbow	9
5.6	Fabrication of Piping Support and Hanger	9
6	Welding and Heat-treatment after Welding of Piping	10
7	Piping Installation	12
7.1	General Requirement	12
7.2	Piping Prefabricate	13
7.3	Steel Piping Installation	13
7.4	Installation for Piping of Coupling Equipment	16
7.5	Cast Iron Piping Installation	16
7.6	Installation of Stainless Steel Piping and Non-ferrous Piping	18
7.7	Installation of Heating Piping	19
7.8	Jacket Piping Installation	19
7.9	Installation of Anticorrosive Lining Piping	20
7.10	Valve Installation	20
7.11	Expansion Joint Installation	20
7.12	Installation of Piping Support and Hanger	21
7.13	Installation of Static Electricity Grounding	22
8	Inspection, Examination and Test for Piping	23
8.1	Visual Inspection of Welded Seam	23
8.2	Radiographic and Ultrasonic Examinations of Welded Seam	25
8.3	Non-destructive Examination of Welded Seam Surface	26
8.4	Hardness Examination and Other Inspections	27
8.5	Pressure Test	28
9	Blowing and Cleaning of Piping	31
9.1	Water Flushing	31
9.2	Air Blowing	32
9.3	Steam Blowing	32
9.4	Degreasing of Piping	33
9.5	Chemical Cleaning	33

9.6 Oil Cleaning.....	34
Appendix A Record of Sub-item Project's Quality Acceptance	35
Appendix B Record of Subsection (Sub-subsection) Project's Quality Acceptance	36
Appendix C Record of Unit (Sub-unit) Project's Quality Acceptance	37
Appendix D Record for Check of Project's Quality Guarantee Materials.....	38
Explanation of Wording in This Code	40
List of Quoted Standards	41

1 General Provision

1.0.1 This Code is formulated in order to unify the quality acceptance method for industrial metallic piping construction, strengthen the technical management and ensure the engineering quality.

1.0.2 This Code is applicable to acceptance of construction quality of industrial metallic piping with design pressure no greater than 42MPa and the design temperature no greater than the allowable operating temperature of materials.

1.0.3 This Code shall be used in conjunction with the current national standards "Unified Standard for Constructional Quality Acceptance of Industrial Installation Engineering" (GB 50252) and "Code for Construction of Industrial Metallic Piping Engineering" (GB 50235).

1.0.4 Acceptance of construction quality of industrial metallic piping shall comply with not only this Code, but also those specified in the relevant current standards of the State.

2 Terms

2.0.1 Inspection lot

It refers to inspection bodies consisted of certain quantity samples gathered according to the same working condition or required mode for inspection.

2.0.2 Visual inspection

It refers to inspection on the inspected object by visual observation in conjunction of practical experience to judge whether the object meet those specified in this code or not.

2.0.3 100% examination

It refers to the complete inspection on a specific item in a designated inspection lot.

2.0.4 Random sampling examination

It refers to the inspection on certain percentage of a specific item in a designated inspection lot.

2.0.5 Local sampling examination

It refers to specified local inspection on every certain item in a designated inspection lot.

3 Basic Requirement

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