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**Code for Construction of Field Equipment,
Industrial Pipe Welding Engineering**

现场设备、工业管道焊接工程施工规范

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Forward

According to the requirements of Document Jian Biao [2007] No. 126 issued by the former Ministry of Construction (MOC)—“Notice on Printing and Publishing the Development and Revision Plan of National Engineering Construction Standards and Codes in 2007 (2nd Batch)”, this code is revised on the base of “Code for Construction and Acceptance of Field Equipment, Industrial Pipe Welding Engineering” GB 50236—98 by the chief development organizations the China Petroleum & Chemical Engineering Survey and Design Association and the China Petroleum Jilin Chemical Engineering & Construction Co., Ltd. jointly with the organizations concerned, and the standard name was changed to “Code for Construction of Field Equipment, Industrial Pipe Welding Engineering” after revision.

During the revision process of this code, the code drafting group revised, examined and finalized this standard upon carrying out extensive investigation and study, earnestly summarizing practical experiences, referring to related international standards and advanced foreign standards, and soliciting opinions widely.

This code comprises 13 chapters and four appendixes. Its main technical contents include: general provisions, terms, basic requirements, materials, welding procedure qualification, welding skill qualification, welding of carbon steel and alloy steel, welding of aluminium and aluminium alloy, welding of copper and copper alloy, welding of titanium and titanium alloy, welding of nickel and nickel alloy, welding of zirconium and zirconium alloy as well as welding inspection and hand over of welding engineering, etc..

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

1 The application scope was modified, the metallic materials such as titanium alloy (low alloy titanium), zirconium and zirconium alloy as well as welding methods such as electroslag welding and stud welding were added.

2 The unapplicable scope was deleted.

3 Chapter “Terms” was added.

4 The relevant requirements for inspection, preservation and application of welding materials were supplemented.

5 The contents of welding procedure qualification and welding skill qualification were modified and adjusted according to current relevant standard.

6 The new welding technologies, new procedures and quality requirements such as electroslag welding, stud welding and dual phase steel welding of carbon steel and alloy steel were supplemented. The requirements of the conditions for preheating before welding and heat treatment after welding were modified.

7 The procedure requirements of brass tungsten inert gas arc welding were supplemented.

8 The welding procedures and quality requirements for titanium and titanium alloy equipments were added.

9 The welding procedures and quality requirements for metal inert gas arc welding and submerged arc welding of nickel and nickel alloy as well as the nickel and nickel alloy equipments

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1 General Provisions

1.0.1 This code was formulated with a view to improving the construction level of welding engineering for equipments in construction site of engineering construction and the industrial metallic pipeline, strengthening the quality control in construction process of welding engineering, and guaranteeing the engineering quality and engineering safety.

1.0.2 This code is applicable to the welding engineering construction of the materials made of carbon steel, aluminium and aluminium alloy, copper and copper alloy, titanium and titanium alloy (low alloy titanium), nickel and nickel alloy as well as zirconium and zirconium alloy.

1.0.3 The welding methods applicable to this code include gas welding, shielded metal arc welding, submerged arc welding, tungsten inert gas arc welding, metal inert gas arc welding, self-shielded flux cored arc welding, electroslag welding and stud welding.

1.0.4 The welding engineering construction shall be carried out according to the requirements of the design document and this code.

1.0.5 Where the design document needs be modified or the material needs be substituted, it shall be approved by the original design organization and issued with written document.

1.0.6 This code shall apply in conjunction with the current national standard “Code for Construction and Acceptance of Field Equipment, Industrial Pipe Welding Engineering” GB 50683.

1.0.7 The welding engineering construction shall meet the relevant requirements of the relevant current national standards on energy conservation and emission reduction, environmental protection, safety technology as well as labour protection, etc..

1.0.8 The construction of field equipment, industrial pipe welding engineering shall not only in accordance with this code, but also comply with the requirements specified in the current relevant standards of the nation.



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