



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

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**Code for quality acceptance of static equipment installation in
petrochemical engineering**

石油化工静设备安装工程施工质量验收规范

(English Translation)

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1.0.1 This code is formulated with a view to strengthen the quality control of petrochemical

construction work, unify the requirements of installation work construction acceptance for petrochemical static equipment (hereinafter referred to as "equipment") and guarantee the quality for equipment installation.

1.0.2 This code is applicable to the construction quality inspection & acceptance for equipment installation of petrochemical construction work integral installation equipment and on-site welding equipment and their special internal components, safety accessories, adjunctive ladder and platform of equipment.

This code is not applicable to the construction quality inspection & acceptance for vertical type cylindrical tank, gas tank and nonmetal equipment.

1.0.3 Overall inspection is required for all articles except the ones which are indicated with the inspection quantity in this code.

1.0.4 Not only the requirements stipulated in this standard, but also those in the current

relevant ones of the nation shall be complied with for the construction quality inspection and acceptance for the equipment installation.

3.1 Qualification Requirements

3.1.1

The construction organizations that are employed in equipment installation, on-site welding and nondestructive testing works shall be staffed with the corresponding professionals who are competent for the works they are in charge with.

Check method. Check the enterprise qualification certificate.

3.1.2

The staff who is employed in equipment welding and nondestructive inspection work shall take the examination according to the current national standard and provision requirements and obtain the relevant certificates, and the competent staff can be employed in the works which are corresponding to their qualifications.

Check method. Check the staff's qualification certificate.

3.2 Counting Devices

3.2.1

The counting device shall be calibrated, adjusted or verified, and in the qualified state, the device also shall be used in the effective and determining period.

Check method. Check the test marks of the counting device.

3.2.2 When the cycle certified counting device is transferred, the calibrating/adjusting

certificate shall be required.

Check method. Check the verification certificate of the counting device.

3.3 Supervision and Inspection for Pressure Vessel Installation Work

3.3.1

As for the pressure vessel on-site welding and installation work, the employed construction organization shall notify the local special equipment safety supervisory department for inspection in writing before commencement.

Check method. Check "the Special Equipment On-site Welding and Installation Notice".

3.3.2

As for the pressure vessel on-site welding and installation work, the employed construction organization shall accept the supervision and inspection from the inspection and detection organization which takes the qualification on the work place.

Check method. Check "The Installation Quality Certificate of Boiler Pressure Vessel", and "Safety Performance Supervision Testing Certificate for Boiler Pressure Vessel Products".

3.4 Technical Documents of Equipment Installation

3.4.1

The equipment installation shall be equipped with the following technical documents.

1 After pickling and passivating and it is washed, the 0.01% methyl orange extract solution

shall be dropped on the equipment surface which is pickled and passivated, it is eligible that no redness appears.

2 The inspection of passivating film shall be carried out on the test panel which is carried out the surface-treatment under the same conditions, dissolve 10g red prussiate of potash into 500mL water, add 10mL concentrated sulfuric acid and 20mL concentrated hydrochloric acid, dilute it to 1000mL and make it act as test solution, then drop it on the washed surface, it is eligible that no deep-blue appears in 0.5 ~ 1min.

Check method. Visual check.

4.9.2 As for the austenitic stainless steel equipment, the chloride ion content in flashing water shall not be more than 25mg/L.

Check method. Check the report of chloride ion content in water.

4.9.3 The equipment degreasing quality check method and approval standard shall meet the following requirements.

1 Direct method.

1) Wipe the in-wall and internal components for the equipment in clean and dry white-filter paper, the Lipin shall not be on the paper.

2) In the UV-lamp whose wavelength is 320~380nm, the hyacinthine fluorescence shall not be on the degreasing surface.

2 Indirect method.

1) When steam is used to blow and clean the degreasing, a little steam condensate shall be filled in the vessel, and some pure camphor whose granularity is less than 1mm shall be pulled into the vessel, it is eligible that camphor keep gyrating.

2) When the organic solvent or aqua fortis is used for degreasing, the solution or acid which has been degreased shall be took away for analyzing the oleaginous or organic matter contents, their contents shall not be more than 0.03%.

4.9.4 The ware trace or alkali trace must not be on the aluminium equipment after the chemical cleaning.

Check method. Visual check.

4.9.5 After the chemical cleaning is adopted for the titanium equipment, the red prussiate of potash or (C₁₂H₃N₂) solution shall be spread (or sprayed) or the filter papers which contain aforesaid solutions shall be attached on the equipment surface, the solution or filter paper shall not be discolored.

4.9.6 The interior shall be unscrambled before the equipment is seal, the adhesive materials and sundries shall not be on it.