



PROCESS
INDUSTRY
PRACTICES

TECHNICAL CORRECTION
January 2017

Structural

PIP STF05520
Details for Pipe Railing for
Walking and Working Surfaces

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In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

This Practice is subject to revision at any time.

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PUBLISHING HISTORY

December 1998 Issued

August 2003 Technical Revision

January 2017 Technical Correction

Not printed with State funds



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1. Scope

This Practice provides requirements for designers, fabricators, and installers of pipe railing. This Practice provides fabrication and installation details for standard pipe railing for walking and working surfaces and for stair railing or handrail for egress. Although the details in this Practice are intended to meet U.S. Occupational Safety and Health Administration (OSHA) requirements for process facilities, they may not meet the requirements of local or national building codes.

Comment: As of the effective date of January 17, 2017, this Practice is no longer fully compliant with new *OSHA Regulations 29 CFR 1910 Subpart D – Walking-Working Surfaces* that were published on November 18, 2016. This Practice will need to be supplemented or modified by the user to be in full compliance with the new OSHA regulations until the complete revision of this Practice incorporating the changes is published by PIP.

2. References

When adopted in this Practice or in the contract documents, the latest editions of the following codes, standards, specifications, and references in effect on the date of contract award shall be used, except as otherwise noted. Short titles will be used herein when appropriate.

2.1 Process Industry Practices (PIP)

- PIP STS05120 - *Fabrication of Structural and Miscellaneous Steel Specification*
- PIP STS05130 - *Erection of Structural and Miscellaneous Steel Specification*

2.2 Industry Codes and Standards

- American Society for Testing and Materials (ASTM)
 - ASTM A36 - *Standard Specification for Structural Steel*
 - ASTM A53 - *Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless*
 - ASTM A307 - *Standard Specification for Carbon Steel Externally and Internally Threaded Standard Fasteners*
 - ASTM A500 - *Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes*

3. Definitions

The following definitions from *OSHA 1910, Subpart D*, shall apply to this Practice:

handrail: A single bar or pipe supported on brackets from a wall or partition to provide a continuous handhold for persons using a stair

stair railing: A vertical barrier erected along exposed sides of a stairway to prevent falls of persons