



Process Industry Practices
Structural

PIP STC01015

Structural Design Criteria

PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

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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PRINTING HISTORY

<i>December 1998</i>	<i>Issued</i>
<i>February 2002</i>	<i>Technical Revision</i>
<i>April 2002</i>	<i>Editorial Revision</i>

<i>August 2004</i>	<i>Complete Revision</i>
<i>February 2006</i>	<i>Technical Correction</i>
<i>September 2007</i>	<i>Technical Correction</i>

Not printed with State funds

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1. Introduction

1.1 Purpose

This Practice provides structural engineering design criteria for the process industries.

1.2 Scope

This Practice describes the minimum requirements for the structural design of process industry facilities at onshore U.S. sites. This Practice is intended to be used in conjunction with *PIP ARC01015*, *PIP ARC01016*, *PIP CVC01015*, *PIP CVC01017*, and *PIP CVC01018*, as applicable.

2. References

Applicable parts of the following Practices, industry codes and standards, and references shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles will be used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP ARC01015 - *Architectural and Building Utilities Design Criteria*
- PIP ARC01016 - *Building Data Sheets*
- PIP CVC01015 - *Civil Design Criteria*
- PIP CVC01017 - *Plant Site Data Sheet*
- PIP CVC01018 - *Project Data Sheet*
- PIP PCCWE001 - *Weighing Systems Criteria*
- PIP PCEWE001 - *Weighing Systems Guidelines*
- PIP REIE686/API 686 - *Recommended Practices for Machinery Installation and Installation Design*
- PIP STC01018 - *Blast Resistant Building Design Criteria*
- PIP STE05121 - *Anchor Bolt Design Guide*
- PIP STE03360 - *Heat Exchanger and Horizontal Vessel Foundation Design Guide*
- PIP STS02360 - *Driven Piles Specification*

2.2 Industry Codes and Standards

- American Association of State Highway and Transportation Officials (AASHTO)
 - *AASHTO Standard Specifications for Highway Bridges*
- American Concrete Institute (ACI)
 - *ACI 318/318R - Building Code Requirements for Structural Concrete and Commentary*