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PRACTICES

COMPLETE REVISION
September 2024

Structural

PIP STS03001
Plain and Reinforced Concrete Specification

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PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

This Practice has been prepared by harmonizing technical requirements from existing standards of major industrial operators, contractors, and standards development organizations. While this Practice is intended to incorporate the majority of requirements, individual applications may have requirements which take precedence over this Practice. Determinations concerning fitness for purpose or application of this Practice to specific project or engineering situations should not be made solely on information contained in this Practice. All Practices are intended to be consistent with applicable laws and regulations. Should this Practice conflict with applicable law 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 this Practice.

Use of trade names should not be viewed as an expression of preference. Other brands having the same specifications are equally correct and may be substituted for those named.

This Practice is subject to revision at any time. For more information refer to PIP ADG001, *Specification for Developing Practices*.

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1. Scope

This Practice provides requirements for furnishing and installing materials and for proportioning, mixing, placing, testing, and curing of cast-in-place plain and reinforced concrete.

This Practice supplements ACI 301-20 IN-LB, *Specifications for Concrete Construction – Inch-Pound Units*, and ACI 301-20 SI, *Specifications for Concrete Construction – International System of Units*.

2. References

Applicable parts of the following Practices and industry codes and standards shall be considered an integral part of this Practice. The edition of references shall be as shown in *ACI 301-20 IN-LB / ACI 301-20 SI* Section 1.4 or, if not listed in *ACI 301-20 IN-LB / ACI 301-20 SI*, shall be the edition in effect on the date of contract award, except as otherwise noted. Short titles are used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP STF05121 - *Anchor Fabrication and Installation into Concrete*

2.2 Industry Codes and Standards

- American Concrete Institute (ACI)
 - ACI 117-10 - *Specification for Tolerances for Concrete Construction and Materials and Commentary*
 - ACI 117M-10 - *Specification for Tolerances for Concrete Construction and Materials and Commentary (Metric)*
 - ACI 237R - *Self-Consolidating Concrete*
 - ACI 301-20 IN-LB - *Specifications for Concrete Construction – Inch-Pound Units*
 - ACI 301-20 SI - *Specifications for Concrete Construction – International System of Units*
 - ACI 304.2R - *Guide for Measuring, Mixing, Transporting, and Placing Concrete*
 - ACI 305.1 IN-LB - *Specification for Hot Weather Concreting – Inch-Pound Units*
 - ACI 305.1M - *Specification for Hot Weather Concreting (Metric)*
 - ACI 306.1 - *Standard Specification for Cold Weather Concreting*
 - ACI SPEC-350.1 IN-LB - *Tightness Testing of Environmental Engineering Concrete Structures – Specification – Inch-Pound Units*
 - ACI SPEC-350.1 SI - *Tightness Testing of Environmental Engineering Concrete Structures – Specification – International System of Units*
 - ACI 350.5-12 - *Specifications for Environmental Concrete Structures*
 - ACI 350.5M-12 - *Specifications for Environmental Concrete Structures (Metric)*
 - ACI MNL-66 - *ACI Detailing Manual*