PROCESS INDUSTRY PRACTICES

January 2024

Project Engineering

PIP PEEPJ001
Guideline for Project Engineering

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 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 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 guidelines to establish a common framework and understanding for owners and contractors before execution of any project engineering effort. The Practice will act as a guide and checklist for discipline-specific engineering teams on requirements including roles and responsibilities.

Project Engineering is the coordinated series of technical activities and deliverables performed by engineers, designers, drafters, and others associated with a project. Though terms used to describe the phases and activities vary, essential elements are consistent with both owner representative engineers and external engineering service providers and can be diagrammed in accordance with the order of execution as outlined in the roadmap in Appendix A.

Project engineering is a subset of project management, of which plans and processes are defined under separate bodies of knowledge (PMI PMBOK, CII), not specified herein. Project engineering guidelines will define deliverables and business process interfaces with common project management plans and practices. To clarify the distinction between Project Engineering (PE) and Project Management (PM) given the variety of terms and methods, the guidelines herein will distinguish between project processes for PM and technical processes for PE.

The project manager, project sponsor(s), and relevant stakeholders will determine the applicability of the specifications herein relative to the scope and complexity of the project and will adapt these guidelines to fit the needs of the project.

Safety, Process Safety Management (PSM), and other regulatory requirements may be mentioned if applicable but will not be covered exhaustively in this Practice.

2. References

Applicable parts of the following Practice and industry codes and standards 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 are used herein where appropriate.

2.1 Process Industry Practices (PIP)

– PIP PEEPJ002 - *Change Management*

2.2 Industry Codes and Standards

- Association for the Advancement of Cost Estimating (AACE)
  - 18r-97 - *Cost Estimate Classification System*
  - EST.2833 - *Maturity Assessment for Engineering Deliverables*
- Construction Industry Institute (CII)
  - *Knowledge Base*
- Project Management Institute (PMI)
  - PMBOK - *Project Management Body of Knowledge*