



PROCESS  
INDUSTRY  
PRACTICES

COMPLETE REVISION  
August 2024

***Piping***

**PIP PNE00003**  
**Process Unit and Offsites Layout Guide**

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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 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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## PIP PNE00003 Process Unit and Offsites Layout Guide

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## 1. Scope

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This Practice provides guidance for the design and layout of process units and offsites. This guide should be used as a starting point for the development of plans, electronic models, and working drawings for process units and offsites. This Practice should be coordinated with the overall site and offsites layout for geotechnical, grading, zoning, building codes, life safety code, fire codes, other regulatory requirements, and owner's and insurer's risk assessment requirements.

This Practice describes the guidelines for the layout of plot areas, equipment, pipe racks, piping, platforms, roadways, and other miscellaneous items.

Layout includes equipment location, access and egress for personnel safety, access for operations and maintenance, and provisions for operational housekeeping and constructability.

This Practice does not cover requirements for owner safety and property protection needs (e.g., loss prevention, vapor cloud explosions, or environmental flare/vent stack requirements). Spacings shown in the "Recommended Equipment Spacing Charts" in this Practice are based predominantly on industry experience from a fire exposure/asset loss standpoint and are generally applicable for facilities processing flammable and combustible gases and liquids.

This Practice should be used by those knowledgeable in the governing laws, codes, and regulations applicable to the specific facility to ensure that minimum access/egress and equipment spacing is provided to comply with safety regulations. This Practice does not cover the requirements of laws, codes, and regulations in detail. It only provides general guidance or may be used as a pointer to more information.

## 2. References

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

### 2.1 Process Industry Practices (PIP)

- PIP CVD02350 - *Roadway Design Guide*
- PIP CVD02350M - *Roadway Design Guide (Metric)*
- PIP PCCGN002 - *General Instrument Installation Criteria*
- PIP STE01100 - *Constructability Design Guide*
- PIP STE05501 - *Fixed Ladders Design Guide*
- PIP STE05511 - *Standard Stairs Design Guide*
- PIP STE05520 - *Guards and Handrails Design Guide*
- PIP STE05535 - *Vessel Circular Platforms Design Guide*