



PROCESS  
INDUSTRY  
PRACTICES

TECHNICAL REVISION  
September 2022

**Process Control**

**PIP PCTPA001**  
**Testing of Process Analyzes System**

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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 materials 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.

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### **PUBLISHING HISTORY**

January 2001 Issued  
August 2006 Complete Revision  
January 2016 Complete Revision

September 2022 Technical Revision

Not printed with State funds



## PIP PCTPA001 Testing of Process Analyzes System

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## 1. Scope

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This Practice provides requirements for inspection and acceptance testing of process analyzer systems and field enclosures. This Practice describes requirements inspection and acceptance tests for process analyzer systems performed as follows:

- a. On process analyzer(s) performed by the OEM
- b. On the fabricated process analyzer systems and shelter(s) performed by the Analyzer System Vendors (ASV)
- c. On the installed systems on site as a requirement for turnover to the owner

## 2. References

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Applicable parts of the following Practices 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.

### Process Industry Practices (PIP)

- PIP PCEPA002 - *Process Analyzer Project Implementation Guidelines*
- PIP PCSPA002 - *Process Analyzer System Data Sheet Instructions*
- PIP PCSPA002-D - *Process Analyzer System Data Sheet* (included in PCSPA002)

## 3. Definitions

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*owner*: Party who owns the facility wherein the process analyzer systems will be used

## 4. Requirements

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### 4.1 General

- 4.1.1 Inspection and acceptance testing of process analyzer systems on a major capital project can require the participation of only one or several of the following resource groups:
  - a. Owner company personnel
  - b. Engineering & Construction contractor personnel
  - c. Analyzer System Vendors (ASV)
  - d. Analyzer Original Equipment Manufacturer (OEM)
- 4.1.2 Physical inspections shall be performed by both the ASV and the OEM.
- 4.1.3 Acceptance testing shall be performed at factory (FAT) and at site (SAT). Test procedures shall be approved by Owner prior to testing.
- 4.1.4 Before performing an acceptance test, statistical quality control (SQC) performance data shall be provided by the ASV and/or the OEM.