



PROCESS
INDUSTRY
PRACTICES

TECHNICAL CORRECTION
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Work Processes

PIP ADG010
Guideline for Numbering Practices

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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PIP ADG010 Specification for Numbering Practices

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1. Scope

This Practice describes the PIP Practices numbering system and the requirements for each field.

2. References

Applicable parts of the following Practices and other 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 are used herein where appropriate.

Process Industry Practices (PIP)

- PIP PHCM0001 - *Hygienic Process Piping Line Class Designator System*
- PIP PHCM0004 - *Hygienic Valve Commodity Codes Designator System*
- PIP PLCM0001 - *Pipeline Systems Nomenclature*
- PIP PLCM0004 - *Pipeline Valve Commodity Code Designator System*
- PIP PNCM0001 - *Piping Line Class Designator System*
- PIP PNCM0004 - *Valve Commodity Codes Designator System*

3. Requirements

3.1 General

- 3.1.1 The PIP Practice numbering system shall consist of four alphanumeric fields.
- 3.1.2 Each field shall describe various features of Practice content.
- 3.1.3 Practice numbers of withdrawn Practices shall not be reused.

Comment: The PIP office maintains a log to verify acceptable proposed Practice numbers.

3.2 Field Definitions

3.2.1 First Field - Engineering Discipline

- 3.2.1.1 The first field shall designate the engineering discipline.
- 3.2.1.2 The engineering discipline field shall consist of two alphabetic characters in accordance with Table 2.

3.2.2 Second Field - Practice Type

- 3.2.2.1 The second field shall designate the Practice type.
- 3.2.2.2 The Practice type field shall consist of one alphabetic character in accordance with Table 3.

3.2.3 Third Field - Category

- 3.2.3.1 The third field shall designate authoring Function Team's category code.
- 3.2.3.2 The category code field shall consist of characters shown in Table 4.

3.2.4 Fourth Field - Sequence

The fourth field shall define a sequential designator as specified by the authoring Function Team.

3.3 Example Designation

Examples of PIP Practice numbers are shown in Table 1.

Table 1 - Examples of Practices Numbering

DISCIPLINE	TYPE	CATEGORY	UNIQUE #
EL	E	HA	01
PC	C	TE	001
PN	F	J	8000
ST	S	05	120
EXAMPLES			
	ELEHA01	(<u>E</u> lectrical <u>E</u> ngineering Guide)	
	PCCTE001	(<u>P</u> rocess <u>C</u> ontrol <u>C</u> riteria)	
	PNFJ8000	(<u>P</u> ipi <u>N</u> g <u>F</u> abrication Details)	
	STS05120	(<u>S</u> tructural <u>S</u> pecification)	

Table 2 - Engineering Disciplines

CODE	DISCIPLINE
AD	Administrative
AR	Architectural
CV	Civil
CT	Coatings
DM	Data Management
EL	Electrical
IN	Insulation
PC	Process Control
PE	Project Engineering
PH	Hygienic Processes & Piping
PI	Piping & Instrumentation Design Criteria
PL	Pipeline Systems
PN	Piping
RE	Machinery (Rotating Equipment)
RF	Refractory
ST	Structural
VE	Vessel

Table 3 - Practice Types

CODE	TYPE	AUDIENCE	USE	DESCRIPTION
G	General (Internal Administrative Practices)	Authors and Editors of Practices	PIP Work Processes. Standardization of Practice formats.	Provide work processes for developing and maintaining Practices.
C	Criteria (Design Specification)	In-house or Contractor Engineers	Owners' technical expectations of engineering. Engineering requirements.	Standards on which engineering decisions are based. Requirements for the applications of the technology. This is the "what-to-do" for the design philosophy. Describe safety, regulatory, environment, quality, operability, maintainability, and reliability requirements.
E	Engineering Guide	Less experienced Engineers	Items to be considered during engineering design. Explanations of engineering choices.	Provides textbook or background information for someone who is not experienced in the discipline. Design aids, recommended methods, and useful data are included or the sources are referenced. Intended to serve as design bibliographies rather than as design handbooks.
S	Specification (Purchase Order or Subcontract Specification)	Vendors, Fabricators, Manufacturers, Installers, or Constructors	Purchasing, installation, or construction requirements. Information required to procure material or equipment.	Statements prescribing materials, dimensions, workmanship, and installation requirements for something to be fabricated, manufactured, or built. May include data form documents and standard details as appendixes.
F	Fabrication Details	Procurers (BoMs), Fabricators (Details), or Inspectors	Drawings with text that provide details of fabrication. Description of materials required.	Provides details of how to assemble the material. Typically used in conjunction with Specification Practices.
I	Installation Details	Installers, Constructors, or Inspectors	Drawings with text that provide details for installation or construction.	Provides details of how to install materials or equipment. Typically used in conjunction with a subcontract Specification Practice.
T	Inspection and Testing Requirements	Vendors, Fabricators, Manufacturers, Installers, Constructors, Inspectors, or Startup Teams	Requirements for factory inspection, testing, and acceptance. Pre-startup testing.	Specifies inspection and testing at manufacturer's facility before acceptance and shipment. Also defines testing before startup at owner's location. Typically used in conjunction with a Specification Practice.
D	Documentation Requirements	Vendors, Fabricators, or Manufacturers	Lists required vendor documentation.	Specifies what documentation will be furnished by the vendor. Typically used in conjunction with a purchase order Specification Practice.

Table 4 - Function Team Practice Categories

Category	Description
Architectural	
01	General
08	Doors and Windows
13	Pre-Engineered Buildings
Civil	
01	General
02	Site Conditions
Structural	
01	General
02	Foundations
03	Concrete and Grout
	001 – 599 Concrete 600 – 999 Grout
05	Anchors and Steel 001 – 199 Anchor Bolts and General Fabrication/Erection 200 – 599 Ladders/Platforms
Coatings	
C	Concrete Coating
E	External
G	General
L	Internal Lining
U	Underground
Insulation	
A	Acoustic
C	Cold Service
G	General
H	Hot Service
R	Removable/Reusable
Refractory	
A	Anchors
B	Brick
F	Ceramic Fiber
G	General
M	Monolithic
Data Management	
DC	Document Controls
IM	Instrumentation Metadata

Category	Description
Electrical	
AP	Auxiliary Power
BD	Bus Duct
FT	Field Testing
GL	General
GS	Grounding Systems
HA	Hazardous Areas
HT	Heat Tracing
LR	Lighting & Receptacle
MC	Motor Controls
MT	Motors
PF	Power Factor
PS	Packaged Systems
SG	Switchgear
TR	Transformers
WC	Wire/Cable
Project Engineering	
PR	Process Engineering
PM	Project Management
PJ	Project Engineering
IM	Information Management
QC	Quality & Compliance
PS	Process Safety Management
PU	Purchasing
CN	Construction
OP	Operations
MT	Maintenance
Process Control	
CP	Control Panels
CV	Control Valves/Regulators
DO	Documentation
DP	Differential Pressure
EL	Electrical
FL	Flow
GN	General
HP	Hygienic Processes & Piping
RE	Rotating Equipment
IA	Instrument Air

Category	Description
Process Control (continued)	
IP	Instrument Piping
LI	Level
PA	Process Analyzers
PR	Pressure
PS	Packaged Systems
TE	Temperature
WE	Weighing Systems
Machinery	
C	Compressors
E	General
F	Fans
M	Agitators/Mixers
P	Pumps
R	Refrigeration
Vessel	
AC	Air Coolers
BI	Bulk Solids Product Containers
FG	Fiberglass Tanks/Vessels
HP	Hairpin Heat Exchangers
LP	Low Pressure Tanks
PMI	Positive Material Identification
Q	Shop Qualification
SM	Small Vessels and Heat Exchangers
ST	Shell/Tube Heat Exchangers
TA	API 650 Tanks
V	Vessels, ASME Code Section VIII, Div. 1 & 2
VJ	Vessel Gaskets
Piping*/Hygienic Processes & Piping**/Pipeline Systems ***	
0	General
C	Fabrication/Installation/Testing/Examination
J	Jacketed Piping
M	Piping Line Classes & Components
MV	Valves
S	Pipe Supports
<p>*See PIP PNCM0001 for Piping Line Class Designator System, and PIP PNCM0004 for Valve Commodity Codes Designator System. **See PIP PHCM0001 for Hygienic Process Line Class Designator System, and PIP PHCM0004 for Hygienic Valve Commodity Codes Designator System. ***See PIP PLCM0001 for Pipeline Systems Line Class Designator System, and PIP PLCM0004 for Pipeline Systems Valve Commodity Codes Designator System.</p>	

3.4 Data Forms Suffixes

3.4.1 To highlight and identify the types of data forms, the following suffixes shall be added to the associated Practice numbers shown on the data forms:

D = Data Sheet (U.S. Customary Units)

DM = Data Sheet (International System of Units [SI])

T = Inspection and Testing Requirements Sheet

R = Documentation Requirements Sheet

F = Other form type (e.g., Checklist, Report)

3.4.2 The Practice number and suffix shall be separated by a dash.

3.4.3 If required because of multiple data forms of the same type and units included in a Practice, a sequence number shall be added after the suffix.

3.4.4 Examples of data form numbers are as follows:

RESP003H-T – Inspection & Testing Requirements Sheet associated with
PIP RESP003H

RESP003H-D, RESP003H-DM – Two Data Sheets included in
PIP RESP003H (-D indicates U.S. Customary Units;
-DM indicates Metric Units)