

# FACILITIES STANDARD

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NAME: Piping Identification and Valve Tagging  
NUMBER: 15202

ORIGINAL DATE: 03-30-99  
REVISION DATE: 04-07-00

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## **PURPOSE:**

1. The general purpose of each Facilities Standard is to provide minimal criteria for construction materials at University facilities regarding code compliance, warranty, approved products, execution and uniformity.
2. To protect the health and safety of patients, visitors, students, faculty and staff, in addition to protecting non-project UAB property, all construction must be in accordance with: NFPA 241 safeguarding construction, alteration and demolition operations; Standard Building Code, Chapter 33, regarding site work, demolition and construction; NFPA 101 Life Safety Code.
3. Construction safety is the responsibility of the contractor in accordance with the regulations and codes of the agency having jurisdiction, and according to the guidelines adapted by OSHA.
4. The **Piping Identification and Valve Tagging Facilities Standard** establishes a series of guidelines for specifying this particular item on any construction project at the University. ***This Facilities Standard is not to be regarded as a specification.***

## **GENERAL:**

1. Piping and equipment shall be painted, tagged and stenciled as described herein.
2. Painting of piping and equipment shall be included in the Painting Division of the Specifications, except as described below.
3. Stenciling shall be performed under this Division.
4. Manufacturer and exact color of paint shall be as approved by the **Owner's Representative**.
5. Painting of medical gas piping shall be painted under this Division.

## **PRODUCTS**

1. All paint shall be suitable for application to the particular type surface in question.
2. Paint for piping and equipment shall be Pittsburgh Paints or equal.

## **EXECUTION**

### **Pipe Service Marking**

1. All pipes for any service shall be identified as to their service after application of insulation and/or final painting, by color code banding and stenciling. Marking shall include pipe content and direction of fluid flow to include the following minimum requirements:
  - a) All markers to be stenciled in positions visible to personnel. Marking shall conform to pipe service identification (abbreviations) as noted on the drawings.
  - b) Piping both exposed and furred in shall be stenciled.
  - c) Paint pipe content banding, legend, and flow direction marker at each valve, at every point of pipe of pipe entry and exit where a line goes through a wall, on each riser and tee joint, and at 25 foot intervals on long continuous runs of pipe. Arrows (flow direction markers) shall point away from content marking, and in direction of flow. If flow can be in both directions, apply double-headed arrows.
  - d) Background Banding (paint)

1. *Color Key*      *Service*

Fire Protection Red – Sprinkler

Dangerous Yellow – Natural Gas, Nitrogen, Nitrous Oxide, Clinical Compressed Air, Medical Vacuum, and Oxygen

Safety Orange – Steam, Steam Condensate Return, Heating Hot Water Supply and Return, etc.

Safety Yellow – Nonpotable Water.

Safety Blue – Domestic Water Lines

Safety Green – Condenser Water Supply and Return, Laboratory Air, Laboratory Vacuum, Sewer, etc.

Aluminum – Chilled water lines

Black – Condensate

Safety Red – Refrigerant Vent Lines

2. Width of color band for outside diameter or insulated pipe and/or uninsulated pipe.

¾ inch thru 2 inch	–	8-inch width
2-½ inch thru 6 inch	–	12-inch width
8 inch thru 10 inch	–	24-inch width
Over 10 inches	–	32-inch width

- e) Legend (Stenciling)

1. Color of Letters

Fire Protection	–	White
Dangerous	–	Black
Safe	–	Black

2. Outside diameter of insulated pipe and/or uninsulated pipe and height of stenciled letters.

<i>Pipe Diameter</i>	–	<i>Letter Height</i>
¾ inch thru 1 ¼ inch	–	½ inch
1 ½ inch thru 2 inch	–	¾ inch
2 ½ inch thru 6 inch	–	1 ¼ inch
8 inch thru 10 inch	–	2-½ inch
Over 10 inch	–	3-½ inch

- f) Control compressed air should be stenciled “CONTROL AIR”; waste vent, rainwater piping, and buried lines are not to be stenciled.
- g) The following piping whether concealed or exposed, shall be painted in its entirety. This pertains to outside cover if pipe is insulated.  
Natural Gas - Gold  
Nonpotable Water - Yellow
- h) The following medical gas piping shall be painted under this Division. Medical gas piping shall be painted in the stockpile prior to erection. It will not be necessary to touch up areas of pipe where joints are made during the erection process in locations where pipe is concealed. Touch ups of joints is required where medical gas piping is exposed.

Nitrogen (Light Blue)  
Nitrous Oxide (Dark Blue)  
Clinical Compressed Air (Aluminum)

Medical Vacuum (Tan)  
Oxygen (Umber Green)

### Valve Tags

1. Attached to each valve, except those on fixtures, a "1-1/2" x 1-1/2" x 3/32" "Graveply" black with white letters, plastic valve tag with the following information.

- a) Upper left hand corner: Service abbreviation.

<i>Service</i>	<i>Abbreviation</i>
High Pressure Steam	HPS
Low Pressure Steam	LPS
High Pressure Condensate Return	HPR
Low Pressure Condensate Return	LPR
Hot Water Supply	HWS
Hot Water Return	HWR
Chilled Water Supply	CHS
Chilled Water Return	CHR
Sprinkler	SPR
Domestic Cold Water	DCW
Domestic Hot Water	DHW
Condenser Water Supply	CS
Condenser Water Return	CR
Laboratory Air	LA
Laboratory Vacuum	LV
Natural Gas	NG
Non-potable Water	NW

- b) Upper right hand corner: valve number. All valves numbered consecutively (not by system).
  - c) Lower left hand corner: building designation (i.e. WT for Wallace Tower - Spain-Wallace Building).
  - d) Lower right hand corner: space number where valve is located.
2. Upon completion of the work, furnish to the owner a complete schedule of all valves installed. Schedule shall include:
    1. number of the valve
    2. service controlled
    3. location of the valve
    4. space or area controlled by the valve

Provide three (3) copies of schedule in loose-leaf form complete with binder and plastic protective envelopes for each sheet. The Owner shall determine form of schedule.

**END OF STANDARD**

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