

# Pressure, Vacuum, and Cryogenic Systems: Flammable and Combustible Liquid Requirements

Department: Chemical and General Safety

Program: Pressure, Vacuum, and Cryogenic Systems

Owner: Program Manager

Authority: ES&H Manual, Chapter 14, Pressure, Vacuum, and Cryogenic Systems<sup>1</sup>

All pressure systems must be in conformance with the requirements of Chapter 14, and this exhibit provides the additional required information specific to systems that contain or convey flammable or combustible liquids. If you need further clarification on the unique characteristics of this type of system or the specific codes, regulations, and standards, please contact the program manager.

## ***Unique Characteristics***

The design, installation, and use of systems that contain or convey flammable or combustible liquids must incorporate into the design the applicable state code requirements for the following:

- Leak control
- Containment
- Static charge controls

*Note* Included are drain systems that convey flammable/combustible liquids but not flammable liquid cryogens.

## ***Required Regulations, Codes, and Standards***

In addition to those listed in Section 3, “Standards”, of Chapter 14, the following regulations, codes, and standards apply.

*Note* Use the most current edition unless otherwise indicated.<sup>2</sup>

### **American Society of Mechanical Engineers (ASME) Standards**

- ASME B31.3-2002, “Process Piping”

### **National Fire Protection Association (NFPA) Standards**

- NFPA 30, “Flammable and Combustible Liquids Code”

### **California Fire Code**

- Chapter 34, “Flammable and Combustible Liquids”

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1 *SLAC Environment, Safety, and Health Manual* (SLAC-I-720-0A29Z-001), Chapter 14, “Pressure, Cryogenic, Vacuum Systems”, [http://www-group.slac.stanford.edu/esh/hazardous\\_activities/pressure/policies.htm](http://www-group.slac.stanford.edu/esh/hazardous_activities/pressure/policies.htm)

2 See the “SLAC Research Library Community Pages”, <http://www-group.slac.stanford.edu/library/CommunityPages.asp>, for available standards.

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### **California Mechanical Code**

- Chapter 14, “Process Piping”

### **California Plumbing Code**

- Chapter 8, “Indirect Wastes”

### ***Related Documents***

- Hazardous Materials: Flammable and Combustible Liquids Safe Handling Guideline (SLAC-I-730-0A09T-004)<sup>3</sup>
- Hazardous Materials: Personal Protective Equipment Requirements (SLAC-I-730-0A09S-017)<sup>4</sup>
- Pressure, Vacuum, and Cryogenic Systems: Codes, Regulations, and Standards List (SLAC-I-730-0A21V-001)<sup>5</sup>

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3 <http://www-group.slac.stanford.edu/esh/eshmanual/references/hazmatGuideFlamLiquid.pdf>

4 <http://www-group.slac.stanford.edu/esh/eshmanual/references/hazmatReqPPE.pdf>

5 <http://www-group.slac.stanford.edu/esh/eshmanual/references/pressureListStandards.pdf>