

Pressure, Vacuum, and Cryogenic Systems: Implementation Plan

Department: Chemical and General Safety

Program: Pressure, Vacuum, and Cryogenic Systems

Owner: Program Manager

Authority: ES&H Manual, Chapter 14, Pressure and Vacuum Systems¹

Until the publication of the new Chapter 14, pressure vessel safety requirements at SLAC were in place through Work Smart Standards (WSS). These requirements are identified below as “existing” in the status column and have been in effect since WSS were instituted. On May 25, 2007, SLAC became subject to all provisions under Title 10, *Code of Federal Regulations*, Part 851, “Worker Safety and Health Program” (10 CFR 851)², which imposed new requirements, in particular on vacuum systems. All Chapter 14 requirements will become effective immediately upon publication unless noted otherwise in the “effective date” column.

Section Number	Section Title	Requirement Note	Status	Effective Date	Schedule Note
5	Requirements				
5.1	General				
5.1.1	Design and Modification				
5.1.1.1	Legacy Systems		Existing	Immediate	
5.1.1.2	New Systems		New	Immediate	
5.1.1.3	Design Documentation	Applies to all new systems	New	30 days after date of publication	
5.1.1.4	Safety Review		New	Immediate	
5.1.2	Procurement	Applicable code requirements must be submitted with purchase requisitions	New	30 days after date of publication	
5.1.3	Fabrication		Existing	Immediate	
5.1.4	Pressure Vessel Registration		Existing	Immediate	

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

2 “Code of Federal Regulations: Main Page”, <http://www.gpoaccess.gov/cfr/>

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Section Number	Section Title	Requirement Note	Status	Effective Date	Schedule Note
5.1.5	Installation and Inspection		Existing	Immediate	
5.1.6	Testing		Existing	Immediate	
5.1.7	Operational Approval and Safety		Existing	Immediate	
5.1.8	Use		Existing	Immediate	
5.1.9	Maintenance, Service, and Repair				
5.1.9.1	Maintenance	Evaluation and maintenance plan	New	Immediate	
5.1.9.2	Servicing		Existing	Immediate	
5.1.9.3	Repair		Existing	Immediate	
5.1.10	Decommissioning		New	Immediate	
5.1.10.1	Asset Preservation	Systems must be labeled. Any system that may be reused is now required to be protected against damage and degradation.	New	30 days after date of publication	
5.1.10.2	Disposal of Assets or System Content		New	Immediate	
5.1.11	Roles and Responsibilities	Defined roles for equipment owner, program manager, and project manager			
5.1.11.1	Pressure Systems Program Manager		New	Immediate	
5.1.11.2	Pressure Safety Committee		New		To be determined.
5.1.11.3	Pressure Vessel Registration Manager		Existing	Immediate	
5.1.11.4	Hazardous and Experimental Equipment Committee		Existing	Immediate	
5.1.11.5	Equipment Owner		New	Immediate	
5.1.11.6	Project Manager		New	Immediate	
5.1.11.7	Equipment Custodian		New	Immediate	
5.1.11.8	Users		Existing	Immediate	

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Section Number	Section Title	Requirement Note	Status	Effective Date	Schedule Note
5.2	Procedures and Specific Requirements				
5.2.1	Design and Modifications		New	30 days after date of publication	
5.2.2	Pressure Vessel Registration		Existing	Immediate	
5.2.3	Testing		Existing	Immediate	
5.2.4	Specialized Systems		New	30 days after date of publication	
5.2.5	Vacuum Systems	Under 10 CFR 851, vacuum systems must comply with pressure vessel code because backfilling may pressurize the system.	New	30 days after date of publication	
5.3	Training	Line management is responsible for ensuring that all duties are delegated to persons whose competence is commensurate with responsibility.	Existing	Immediate	The ES&H training program is under development