

Chapter 14: [Pressure Systems](#)

Procurement Procedure

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

1 Purpose

The purpose of this procedure is to ensure that pressure systems, components, and associated services are in strict adherence with the pressure systems requirements of [10 CFR 851](#). It applies to pressure system owners and custodians or others with purchasing authority, the pressure systems program manager, and Purchasing Department, when purchasing the following:

- Pressure systems such as American Society of Mechanical Engineering (ASME) coded boilers and pressure vessels; non-ASME coded vessels such as Department of Transportation (DOT) vessels; custom-fabricated, scientific, cryogenic, vacuum, gas cylinder pressure, refrigeration, mobile pressure, portable tank, and rental pressure systems; and cryogenic dewars
- Specific components including pressure relief valves, rupture disks, safety manifolds, gas cylinder manifolds, vacuum chambers, and mechanical vacuum pumps
- Services related to pressure systems, such as installation, inspection, maintenance, or repair

A core requirement for such purchases is pre-purchase approval by the pressure systems program manager.

1.1 Exemptions

The following components must meet code requirements but are exempt from the pressure systems program manager’s pre-purchase approval: pressure regulators and gauges, pipes; tubes; pipe and tube supports; fittings such as unions, elbows, and tees; hoses; flexible hoses and tubing; control valves; flow meters; pressure transducers; flash arrestors; valves, including needle, ball, gate, globe, check; filters; seals and gaskets; bolts and other closure hardware.

2 Procedure

Step	Person	Action
1.	Requester	Identifies need for pressure system or associated services: goes to Step 2 Identifies need for pressure system components: skips to Step 4
2.	Requester	Determines pre-purchase technical review requirements
3.	Requester	Submits specifications to the appropriate reviewer (as determined in Step 2) The following applies to all pressure systems types, including custom-fabricated systems. If a system is ready made, submit the equivalent documentation. <i>Note: items d and e can only be obtained once manufacture is complete, but these</i>

Step	Person	Action
		<p><i>items must be specified on the purchase requisition.</i></p> <ol style="list-style-type: none"> System specifications and drawings identifying design conditions (such as temperature and pressure), material specifications, and fabrication details Design calculations in accordance with the applicable codes, standards, or sound engineering principles Fabrication drawings with details for welding, non-destructive examination, inspection, and testing Stamping information (such as markings and other permanent means of identification) Manufacturer's data reports (MDR) or equivalent documents certified by the fabricator and inspector
4.	Requester	<p><i>Note: this step applies if purchasing components only.</i></p> <p>Submits pressure system component specifications to pressure systems program manager for any components not explicitly listed in Section 1.1, "Exemptions"</p> <p>The following must be provided:</p> <ul style="list-style-type: none"> ▪ Technical specifications and drawings indicating codes or standards ▪ Vendor's product catalogs, product literature, or cut sheets
5.	Pressure systems program manager	Approves system(s)/component(s) that meet code requirements or specifies missing or code-equivalent information required for approval
6.	Owner or custodian	Submits purchase requisition to the Purchasing Department using the Business Information System (BIS)
7.	Purchasing	<p>Processes purchase requisition</p> <ul style="list-style-type: none"> ▪ If the system was previously approved by the pressure systems program manager (directly or through a review process that includes the pressure systems program manager), and specifications have not changed since approval, no further technical approval is required ▪ If the system has not been approved by the pressure systems program manager, forwards purchase requisition to the pressure systems program manager
8.	Pressure systems program manager	<p>Approves purchase requisition if items meet review and code requirements</p> <p>If approval is denied, specifies missing or required code equivalent information</p>

3 Forms

The following forms are required by this procedure:

- [BIS: Business Information System](#)

4 Recordkeeping

The following recordkeeping requirements apply for this procedure:

- None

5 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [Chapter 14, “Pressure Systems”](#)

Other SLAC Documents

- [Pressure Systems Safety Program](#)

Other Documents

- Title 10, *Code of Federal Regulations*, “Energy”, Chapter 3, “Department of Energy”, Part 851, “Worker Safety and Health Program”, Subpart E, “Enforcement Process”, Appendix A, “Worker Safety and Health Functional Areas”, Section 4, “Pressure Safety” ([10 CFR 851 Appendix A.4](#))