

New System Document Requirements

RECORD OF REVISIONS

Rev	Date	Description	POC	RM
0	9/17/2014	Initial issue.	Ari Ben Swartz, <i>ES-EPD</i>	Larry Goen, <i>ES-DO</i>

Contact the Standards POC for upkeep, interpretation, and variance issues.

Chapter 17	<u>Pressure Safety POC and Committee</u>
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Documentation Package Item	Required When	Owner Verification	PSO Verification
1. All forms contained in Attachment ADMIN-1-1 of this standard ¹	Every Package		
2. System drawings and schematics ²	Every Package		
3. Alternate Method/Variance (if applicable)	If the system or any item of the system has an applicable alternate method/variance to the requirements of this document		
4. Code Stamped Vessel Fabrication Documentation	The system contains a code stamped vessel		
5. Non-ASME code Fabricated Vessel Information (code-equivalent Documentation)	The pressure system contains Non-ASME-code stamped boilers and pressure vessels (which includes boilers, pressure vessels, heat exchangers, and accumulators)		

¹ Information required on the forms may be documented in alternative documents or captured in controlled databases, such as the MEL or CMMS, but must be referenced and readily available for review. The evaluation shall be considered a record and must be managed per LANL P1020, P1020-1, and P1020-2

² Information required on system drawings and schematics may be documented in alternative documents or captured in controlled databases, such as the MEL or the CMMS, but must be referenced and readily available for review. The evaluation shall be considered a record and must be managed per LANL P1020, P1020-1, and P1020-2

Documentation Package Item	Required When	Owner Verification	PSO Verification
a. ASME code equivalent documentation for systems with pressure vessels which includes but is not limited to minimum wall thickness determination, corrosion allowance, weld efficiency rating, support structure loading, nozzle calculations. Calculations will use the material values specified in the ASME code.	A non-code boiler, pressure vessel, heat exchanger and accumulator is in the pressure system package		
b. Pressure Qualification Test Procedures and data	Non code boilers, pressure vessels, heat exchangers and accumulators is in the pressure system package		
c. Modification procedures/instructions	Modifications were made to non-code boilers, pressure vessels, heat exchangers and accumulators is in the pressure system package		
d. Non-Destructive Evaluation (NDE) data reports	NDE was done to non-code boilers, pressure vessels, heat exchangers and accumulators is in the pressure system package		
e. Weld examination forms as described in ESM Chapter 13.	Welding was done to non-code boilers, pressure vessels, heat exchangers and accumulators is in the pressure system package		
f. Special Calculations such as welding	Special calculations are performed for non-code boilers, pressure vessels, heat exchangers and accumulators is in the pressure system package		
g. Vendor Drawings	Piece parts are used to fabricate non-code boilers, pressure vessels, heat exchangers and accumulators is in the pressure system package		
h. Vessel modification reports	Vessel is modified by other than LANL personnel		
6. Pressure Safety Devices	The pressure system contains a pressure safety device (which includes but is not limited to relief valves and rupture discs)		
a. Flow Test documentation as described in this Chapter	Whenever a relief valve has been modified, or when calculations cannot be generated.		
b. Safety Relief Calculations for relief valves, in accordance with ASME requirements	Every Package, unless calculations cannot be generated, a flow test is required in place of calculations.		
c. Pressure Relief Calculations for Rupture Disks in accordance with ASME requirements	Rupture Disks are in the pressure system		
d. Thermal Load Calculations (Fire Sizing)	A relief device is used to protect against thermal induced over pressure.		
e. Certified Test Data of relief valves, e.g. steam Pressure safety valves are certified by NBIC coded shop	A PRD is modified or tested by an outside facility		
f. Documentation of relief valve modification	If a relief valve has been modified		

Documentation Package Item	Required When	Owner Verification	PSO Verification
g. Identification as a liquid lock PRD on PRV Recall Summary Sheet and pressure system Component List (e.g., spread sheet)	PRDs are used as protection against liquid lock overpressure.		
7. Piping System Documentation	The system contains pipe, tube, or other components not classed as boilers or vessels.		
a. Fabrication Documentation	<u>Code-equivalent systems must have records of all fabrication, inspection, test, and design data required by the applicable code.</u>		
b. Pressure Qualification Test Procedures and data as defined by the applicable piping code	A pressure system package contains piping system components		
c. Examiner qualification	Examinations are preformed		
d. Owner’s Inspector Checklist	Every package		
e. Modification procedures/instructions	Components of a system were modified from original construction		
f. Non-Destructive Evaluation (NDE) data reports	NDE is performed on piping system components		
g. Special Calculations such as Welds and Orifices	A pressure system package contains piping system components that have been welded, modified with “home-made” orifices, or unlisted components.		
h. Corrosion allowance calculations per ASME B31G	Piping is used in corrosive fluid service		
i. Code required calculations e.g. flexibility analysis, pipe supports, wind loading, and seismic loading. See specific code for additional detail. (e.g. B31.3 paragraph 319 and 321)	A pressure system package contains piping system components		
j. Weld examination forms in accordance with ESM Chapter 13, and special required examinations defined in the applicable code.	Welding of pipe or tube in a pressure system package was performed		
k. Weld In-Process Forms in accordance with ESM Chapter 13, and the most applicable code.	When in-process examination of welding is used		
l. Vendor Drawings or sketches	A pressure system package contains vendor supplied systems, piping, or components		
m. Manufacturers’ data sheets	Using component is pressure system		
n. Unlisted Component Evaluation	Using a non-listed component in pressure system		
8. Flex-hose external visual inspection records (see attached forms)	The system contains flexible hoses		
9. Pump or compressor discharge pressure curves, calculation, or table	The pressure system contains pumps or compressors		
10. Oxygen System Hazard Analysis	Pressure system is an oxygen system		