**RECORD OF REVISIONS**

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| --- | --- | --- | --- | --- |
| **Rev** | **Date** | **Description** | **POC** | **RM** |
| 0 | 9/17/2014 | Initial issue. Supersedes forms associated with Section I Rev 3. | Ari Ben Swartz,*ES-EPD* | Larry Goen, *ES-DO* |
| 1 | 4/15/2015 | Removed signatures from forms and incorrect citations from FM10 | Ari Ben Swartz,*ES-EPD* | Larry Goen, *ES-DO* |
| 2 | 3/15/2016 | Removed footnote 3 referencing ML1 and ML2 on FM04. Fixed footnoting errors | Ari Ben Swartz,*ES-EPD* | Larry Goen, *ES-DO* |

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

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| **Chapter 17** | [**Pressure Safety POC and Committee**](http://engstandards.lanl.gov/ESM_Chapters.shtml#esm17) |

This document is online at <http://engstandards.lanl.gov>

**Pressure Safety Forms FM01 - FM10**

1. The appended forms are samples, provided to illustrate the minimum information required[[1]](#footnote-1).
2. The information shall be managed as a record and must comply with LANL P1020-1 *Laboratory Records Management*, and P1020-2, *Laboratory Document Control*. Normally this information will be placed in the PSCS database and then EDMS.
3. Any spreadsheet-based or individual Word forms posted online with this chapter may be used in lieu of these samples.

|  |  |
| --- | --- |
| FM01 | Pressure System Certification Status Form |
| FM02 | PRV Recall Summary Sheet |
| FM03 | Code Non-Compliance Log |
| FM04 | Minor Non-Compliance Log |
| FM05 | Flexible Pressure Element Visual External Examination |
| FM06 | Tubing and Piping Data Sheet |
| FM07 | Pressure System Component List |
| FM08 | Relief Device Placement Verification Record |
| FM09 | Thrust Consideration Data Sheet |
| FM10 | System Schematic |

Additional direction on how the forms are used, and what is specifically required to document a pressure system, is provided in the following attachments to ADMIN-1:

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| ADMIN-1-2 | Form Directions |
| ADMIN-1-3 | Existing (Legacy) Pressure System Documentation Requirements |
| ADMIN-1-4 | New Pressure System Documentation Requirements |

| **Pressure System Certification Status Form**(Place this form in pressure system documentation package when completed) |
| --- |
| System ID No.: |       | Excluded System: | Yes [ ]  No [ ]  |
| Other System Identification Name (or Number): |       |
| System Location (TA-BLDG-Room): |       -      -      (Not applicable if mobile) |
| Mobile System “T” Number: |       (Not applicable if mobile) |
| System Contents (N2, AR, etc.): |       (Do not list if Classified) |
| System Fluid Category ( FS1, FS2, FS3 ): |       |
| System Design Pressure: |       |
| System Design Temperature Minimum |       |
| System Design Temperature Maximum |       |
| PRD Set Pressure(s) |       |
| Applicable ASME B&PVC Section for System: |       | Applicable B31 Code for system: |       |
| System Owner: |       | Phone/Pager: |       |
| Last Re-certification (MM/DD/YY): |       |
| Next Re-certification (MM/DD/YY): |       |
| Reviewer Name: |       |
| Notes: |  |
| Approval Signature List: |  **Printed Name & Z # Signature Date** |
| FOD PSO Certification |             |  |  |
| CPSO Certification |             |  |  |

| **PRV Recall Summary Sheet** |
| --- |
| System Name and ID No.: |       |
| **Pressure Relief Device Component Number** | **Manufacturer** | **Model Number** | **MAWP(PSIG)** | **Set Pressure (PSIG)** | Test date | **Due Date** | **PRV Test Lab Report #** | **Flow check procedure or Calculation Number** |
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| **Code Non-Compliance Log\*** |
| --- |
| System ID No.: |       |
| System Description |       |
| Page       of       |  |
| **Description** | **Code Requirements****(Section, Chapter & Paragraph)** | **Closure & Rationale** | **Closure date & LANL PSO Signature & Z #** |
|  |  |  |  |
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**Minor Non-Compliance Log[[2]](#footnote-2)**

| System ID No.: |       |
| --- | --- |
| System Description |       |
| Page       of       |  |
| **Description** | Requirement**(LANL Document, Section & Paragraph)** | **Closure & Rationale** | **Closure date & Initials** |
| **Owner** | **FOD PSO** |
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| System ID No.: |       |
| --- | --- |
| Date of Inspection |       | FOD PSO Signature & Z # |  |
| **Component****Number** | MAWP | Integrity | Are Flex Hose Restraints used**Yes or No** | **Flex Hose Restraint** |
| ACCEPTABLE(good condition, no visible flaws) | UNACCEPTABLE (Describe)(kinks, frayed, crushed, etc.) | ACC | **UNACC** |
|  |       |       |       |  | [ ]  | [ ]  |
|  |       |       |       |  | [ ]  | **[ ]**  |
|  |       |       |       |  | [ ]  | **[ ]**  |
|  |       |       |       |  | [ ]  | **[ ]**  |
|  |       |       |       |  | [ ]  | **[ ]**  |
|  |       |       |       |  | [ ]  | **[ ]**  |

**Tubing and Piping Data Sheet1**

| System ID No.: |       | Drawing # |       | Date |  |
| --- | --- | --- | --- | --- | --- |
| **Components that tubing/Piping section is located between.****(eg. MV-4 & PI-3)***This is N/A if all piping/tubing is the same size and type throughout entire system* | Tubing Material**(SS, CU, CS, etc.)** | Tubing Spec./Grade**(316-A26, 304L-A358, etc.)** | **OD (in.)** | **ID (in.)** | **Seamless** | **Max Operating Temp °F** |
|  |  |
|  |       |       |  |  | [ ]  **Yes** | [ ]  **No** |  |
|  |       |       |  |  | **[ ]  Yes** | **[ ]  No** |  |
|  |       |       |  |  | **[ ]  Yes** | **[ ]  No** |  |
|  |       |       |  |  | **[ ]  Yes** | **[ ]  No** |  |
|  |       |       |  |  | **[ ]  Yes** | **[ ]  No** |  |
|  |       |       |  |  | **[ ]  Yes** | **[ ]  No** |  |
|  |       |       |  |  | **[ ]  Yes** | **[ ]  No** |  |

| **Pressure System Component List \*** |
| --- |
| Pressure system documentation package I.D. Number: |       |
| System Location (TA-BLDG-Room): |       -      -      |

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| **Component I.D.** | Manufacturer | **Model Number** | **Material (316S.S., Brass, etc.)** | **MAWP** | **Soft Goods Material(s)[[3]](#footnote-3)** | **Code Stamp (U, UV,etc.)[[4]](#footnote-4)** | **Listed Item (Y/N)** | **Code of Item** |
|       |       |       |       |       |       |       |  |  |
|       |       |       |       |       |       |       |  |  |
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|       |       |       |       |       |       |       |  |  |
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| **Relief Device Placement Verification Record[[5]](#footnote-5)**This form is to be maintained in the pressure system documentation package. |
| --- |
| 1) Perform system review. Identify placement of all components in the pressure system in relationship to a pressure relief device. Can any components be isolated from a pressure relief device? (i.e., can a valve be closed which blocks flow path to a relief device?)  |
| Yes [ ]  No [ ]  |
| List below all the components that can be isolated from a pressure relief device. ( attach sheets as necessary) |
| a) |       | b) |       | c) |       | d) |       |
| e) |       | f) |       | g) |       | h) |       |
|  |
| 2) Is the MAWP, of any of the identified components, less than the system source supply pressure? |
| Yes [ ]  No [ ]  |
| If yes, list components below, and re-design system to provide over pressure protection for the listed components. |
| **Component I.D.** | **Manufacturer** | **Model** | **MAWP (psig)** |
|       |       |       |       |
|       |       |       |       |
|       |       |       |       |
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| **Thrust Consideration Data Sheet[[6]](#footnote-6)** |
| Use for all manual valves, nozzles, relief devices, solenoid valves, (etc.) in a system that discharge to the ambient surroundings. |
| **Component Identification String** | **Fluid** | **I.D. of nozzle/tubing at discharge (inches)** | **Maximum source pressure (psig)** | **Maximum surge or sustained thrust (lbf)** | **Type of restraint Mechanism ( if any installed)** | **Maximum loading restraint can withstand [[7]](#footnote-7) (lbs)** |
|       |       |       |       |       |       |       |
|       |       |       |       |       |       |       |
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Sketch the pressure system

| **System I.D. Number** | **Relief Device Component I.D.** | **Sketcher/Evaluator Name** | **Date** |
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1. As such may be revised for format or to reduce required information with POC and Standards Manager approval as an admin change. [↑](#footnote-ref-1)
2. Examples of minor non-compliances are: Relief device past recall due date, in-service inspections past due date, chipped paint, lack of flex-hose restraints, leaking fittings, surface anomalies, identification tags, schematics do not match physical layout, mud dauber nests in relief valve discharge ports. [↑](#footnote-ref-2)
3. \* This form accomplishes configuration control requirements, allows for quick viewing of system piping component characteristics and to ensure adequate pressure relief has been provided. Components found on this form must be found on the system drawing, and visa-versa.

 Unknown is an acceptable answer for inert systems, where material compatibility is not an issue. [↑](#footnote-ref-3)
4. N/A (Not applicable) is an acceptable answer if component is not code stamped [↑](#footnote-ref-4)
5. This data sheet accomplishes the requirements of ASME B31.3, Paras. 301.2.1 & 301.2.2 [↑](#footnote-ref-5)
6. This data sheet accomplishes the requirements of ASME B31.3, Paragraph 301.5.5, 322.6.2 & Appendix G [↑](#footnote-ref-6)
7. As determined by manufacturers’ documentation, finite element analysis, calculations, catalog description, etc. [↑](#footnote-ref-7)