



Conduct of Engineering Request for Variance or Alternate Method

To display the *VAR Request Metadata* pane for this document, click **File > Info > Properties > Show Document Panel.**

1.0 General

1.1 Document Number: VAR-10642	1.2 Revision: 0
1.3 Brief Descriptive Title: Priority, Support, and General Document Definitions	
1.4 Affected Program: Engineering Processes, Engineering Standards, and Engineering Training & Qualification	1.5 Request Type: Variance
1.6a Affected Tech Area 99	1.6b Affected Buildings Sitewide
1.7 Requestor: Murdock, Sarah Organization: ES-FE Conduct of Engineering Office	
1.8 Revision History	
Revision Number	Changes and Comments
0	Initial issue.

2.0 Affected Conduct of Engineering Program/Documents

2.1 Affected "P" Document: N/A – PD340 Documents	2.2 Subordinate or related document(s) [AP, master spec, LANL ESM chapter & section; or code, Order, standard, etc.]: Document Title/No.: Engineering Standards Manual, STD-342-100, Chapter 1 - General, Section Z10 – General Requirements for all Disciplines/Chapters
If against the P document itself, revision (or N/A): N/A	Revision 15
	Document Title/No.: Engineering Standards Manual, STD-342-100, Section Z10 Attachment A, Technical Baseline Drawing CM Categories (Guidance)
	Revision 5
	Document Title/No.: CAD Standards Manual, STD-342-300 Section 100 - General Requirements
	Revision 5
	Document Title/No.: Identification and Control of Technical Baseline in Operating Facilities, AP-341-405
	Revision 6.2
	Document Title/No.: DAR Qualification Standard, Design Authority Representative (DAR) Lines of Inquiry and Study Guide, ESD-TRN-001
	Revision 2

2.3 Section/Paragraph: Enter text..

STD-342-100, ESM Chapter 1, Section Z10: 7.0, J.2.b and Table Z10-3; Appendix A
Z10 Attachment A, *Technical Baseline Drawings Guidance*
STD-342-300, CSM Section 100, 3.0, C
AP-341-405, 9.0
ESD-TRN-001, 1.6

2.4 Specific Requirement(s) as Written in the Document(s):

• ESM Ch. 1 Z10:

- 7.0, J.2.b: "LANL A-B walkdowns are appropriate for all "Priority" and "Support" documents which are generally those necessary for safe operation."
- 7.0, Table Z10-3 All Other: All other drawings required to be A-B by FDAR and not shown above, typically including P&IDs, electrical one-lines and panel schedules, other Priority and Support documents, and ML-1, -2, and -3 SSC drawings (critical or needed for safe operation)"
- Appendix A: General Documents: Technical documents that are not categorized as Priority or Support but provide engineering details necessary for procurement of replacement parts, modifications, maintenance, and operation of the facility SSCs.
- Appendix A: Priority Documents:
Essential documents that are defined by LANL AP-341-405. They include documents that are required to:
 - Respond to an event that can cause loss of life or serious injury to a worker or the public or which can cause significant environmental damage or off-site release.
 - Support the safe performance of facility operations within the facility's approved safety envelope.
 - Perform Technical Safety Requirements (TSRs) in Hazard Category 2 or 3 nuclear facilities.
 - Perform Operational Safety Requirements (OSRs) in High and Moderate Hazard nonnuclear facilities.
 - Define the bounding conditions for safe operations as defined in the Accelerator Safety Envelope (ASE) for an accelerator facility.

Priority drawings are a subset of Priority Documents. Priority Drawings include:

- Building Evacuation Route Diagrams for occupied LANL buildings.
- Selected P&IDs, Electrical Single Lines, and Fire Protection drawings that meet the definition above of Priority Documents. [LANL AP-341-405 r6.2]

FDAR determines which documents meet definition above.

- Appendix A: [definition of "Support Documents"] Technical documents that are needed to safely maintain and operate the facility such as lockouts and tag outs, venting, etc. [LANL AP-341-405 r6.2].
FDAR determines which documents meet definition.
- ESM Ch. 1, Z10 Attachment A, *Technical Baseline Drawings Guidance*: Contains examples of which drawings might be in which category.
- CAD Standards Manual, STD-342-300, Section 100, 3.0, C: **Priority Drawings**: Priority drawings include the small set of "upper-tier" design drawings that are necessary to support the safe performance of facility operations within the facility's approved safety envelope. These drawings typically include piping & instrumentation diagrams, emergency evacuation maps (e.g., floor plans of record), and electrical on-lines, and may include other drawing types depending on the facility.
- AP-341-405, Section 9.0 Definitions and Acronyms
 - **General Documents** – Technical documents that are not categorized as Priority or Support but provide engineering details necessary for procurement of replacement parts, modifications, maintenance, and operation of the facility SSCs.
 - **Priority Documents** – Technical documents that are required to:
 - Respond to an event that can cause loss of life or serious injury to a worker or the public or which can cause significant environmental damage or off-site release.

- Support the safe performance of facility operations within the facility’s approved safety envelope.
- Perform Technical Safety Requirements (TSRs) in Hazard Category 2 or 3 nuclear facilities.
- Perform Operational Safety Requirements (OSRs) in High and Moderate Hazard nonnuclear facilities.
- Define the bounding conditions for safe operations as defined in the Accelerator Safety Envelope (ASE) for an accelerator facility.

Priority drawings are a subset of Priority Documents. Priority drawings include:

- Building Evacuation Route Diagrams for occupied LANL buildings.
- Selected P&IDs, Electrical Single Lines, and Fire Protection drawings that meet the definition above of Priority Documents.

- **Support Documents** – Technical documents that are needed to safely maintain and operate the facility such as lockouts and tag outs, venting, etc.

- ESD-TRN-001, Section 1.6, Objective 4:

Technical baseline documents are categorized as follows:

- Priority Document – technical documents that are required to perform TSRs in HC 2 or 3 nuclear facilities and are required to perform OSRs in accelerator facilities. These documents are updated prior to turnover to operations.
- Support Documents – technical documents that are necessary for workers to perform maintenance of SSC safely such as lockouts and tagouts, venting, etc. These may include P&IDs, Logic Diagrams, and Electrical one-line diagram and other documents based on the facility hazard category. These documents are updated within 60 calendar days after the field work is completed or third implemented design change whichever comes earlier.
- General Documents – technical documents that are not categorized as Priority or Support but provide engineering details necessary for procurement of replacement parts, modifications, maintenance, and operations of the facility SSC. These documents are updated within 360 calendar days after the field work completion or upon receipt of the fifth implemented design change whichever comes earlier.

2.5 Contractual, preference, or other basis for requirement in 2.4:

Contractual DOE O 420.1C cites DOE-STD-1073-2016 Configuration Management as “an acceptable methodology for establishing configuration management programs.” 1073 discusses the need for a graded approach (e.g., Section 1.4; Section 5.1 Documents to be Controlled; 5.3 Timeliness; App. F; and elsewhere) without specifics on how many categories or how to define such. Previous editions of 1073 promoted a system of Essential, Support, and General; LANL adopted that concept but changed Essential to Priority around 1999. In summary, a graded approach is needed to meet 1073 intent, but the current LANL 3-tiered system is a preference.

2.6 Type of VAR from ESM Chap 1, Z10 [<i>Applies only to standards variances</i>] Type 2	2.7 Discipline N/A - not applicable
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3.0 Request Information & Comments

3.1 NCR required (work has occurred)? No If yes, NCR Number: Enter text.	
3.2 System/Component Affected OpSystem Acronym & Name [Select OpSysAcronymAndName] System Number or Name [Select SystemNumberOrName]	3.3 Highest ML Level ML-1

3.4 Proposal with Justification/Compensatory Measures:

Background

A working group comprising of subject matter experts from ES and PFE divisions met several times to determine more effective definitions for the three types of engineering documents. It has been determined that the following definitions are more precise and will provide greater consistency across all facility types.

Priority Documents: Technical documents that are required to perform Technical Safety Requirements (TSRs) in Hazard Category 2 or 3 (HC-2 or HC-3) nuclear facilities or Operational Safety Requirements (OSRs) in accelerator facilities and high and moderate hazard nonnuclear facilities.

Support Documents: Technical documents that are necessary for hazard controls during the performance of work activities within a Facility. These documents are used to support operational and maintenance activities such as SSC troubleshooting, system alignments, Lock Out / Tag Out (LO/TO) development and/or system walkdowns, and abnormal response procedures.

General Documents: Technical documents that are not categorized as Priority or Support documents but provide engineering details to support work activities within a facility.

In the affected documents in 2.2 (CSM and any others that relate), the definitions shall be taken to be the above. Furthermore, any other wording related to them shall be interpreted in a manner consistent with the above.

New wording for Z10 7.0:

- 7.0, J.2.b: "LANL A-B walkdowns are appropriate for all documents which are strictly necessary for safe operation (e.g., Priority and some Support drawings) or where the added investment in pedigree is warranted."
- 7.0, Table Z10-3 All Other: All other drawings required to be A-B by FDAR and not shown above, typically including P&IDs, electrical one-lines and panel schedules, Priority documents, and those Support and ML-1, -2, and -3 SSC documents they deem critical or needed for safe operation.

ESM Ch. 1, Z10 Attachment A, *Technical Baseline Drawings Guidance* is completely superseded by definitions herein and will be withdrawn temporarily.

Short Term Implementation Plan

This VAR will be webposted against the affected documents in 2.2 or otherwise made available to those document users until such time that they are revised to deconflict them regarding the new definitions.

Long Term Implementation Plan

The COE Office is working on finalizing a Facility Engineering Glossary that will be a controlled document and in which these three definitions will be included. Concurrent with Glossary approval, a variance be issued (1) stating that the glossary is the governing document (and revision of all affected COE documents to point to the glossary for official definitions will be undertaken) and (2) canceling/superseding this Document Category variance, whereupon the COE documents affected by this variance will be then governed by the glossary.

3.5 Attachments

N/A

3.6a Project ID

N/A

3.6b: Project Name

N/A

3.6c: Code of Record Date

N/A

3.7 Duration: Lifetime	3.8a If Finite Period, Start Date: Click to enter a date.	3.8b End Date: Click to enter a date
3.8c Provide the PFITS number for tracking removal/correction: [PFITSNum]		
3.9 USQD/USID required (Nuclear, High/Mod Hazard)? No If Yes, USQD/USID Number N/A		
3.10 QA Review for process change matters potentially affecting LANL's NQA-1 implementation Is a QPA Determination required?: Yes If Yes , then: Choose an item. QPA Comments: Enter text..		
3.11 POC Determination: Accept POC Comments: Enter text..		
3.12 Management Program Owner's (SMPO) Approval for P341 and APs; P342, ESM, ML-1 and -2, and Contract Matters; and P343 SMPO Determination: Accept Comments: Enter text..		

4.0 Participant Signatures **NOTE:** DO NOT ADD NAMES FROM WITHIN WORD! *Save and close the form first, then do 1-4 below:*

1. From the SharePoint library, select the document, then click the **ellipsis (...)** in the second column; a small dialog appears
2. In the small dialog click the **ellipsis** again
3. Click **Edit Properties** and check out the document if prompted to Enter names using the controls provided, then **Save**

4.1 POC (Management Program Owner's Representative): Portillo, Beau Sebastian	Organization ES-FE	Signature
4.2 Facility Design Authority Representative Cereijo Ruiznavarro, Jorge FDAR signature not required <input type="checkbox"/>	Organization PFE-DO	Signature
4.3 LANL Owning Manager (FOD or R&D/Program) [FODorPrgmMgrName] FOD or Program Manager signature not required <input checked="" type="checkbox"/>	Organization Enter text..	Signature
4.4 Quality Reviewer's Name: Tunney, Daniel Joseph QPA review/signature not required <input type="checkbox"/>	Organization IQPA-IQ	Signature

<p>4.5 Safety or Security Management Program Owner's Approval for P341 and APs; P342, ESM and Contract Matters; and P343</p> <p>Richardson, Michael Joseph</p> <p>SMPO signature not required (Type 1 variance) <input type="checkbox"/></p>	<p>Organization</p> <p>ES-DO</p>	<p>Signature</p>
<p>4.6 Additional Signer 1</p> <p>Murdock, Sarah</p> <p>Role: P341</p>	<p>Organization</p> <p>ES-FE</p>	<p>Signature</p>
<p>4.7a Additional Signer 2</p> <p>Oruch, Tobin H</p> <p>Role: P342</p>	<p>Organization</p> <p>ES-FE</p>	<p>Signature</p>
<p>4.7b Additional Signer 3</p> <p>Hayes, Stanley E.</p> <p>Role: P343</p>	<p>Organization</p> <p>ES-FE</p>	<p>Signature</p>

<p>4.8 CoE Administrator Signature</p> <p>Leyba, Matthew Anthony</p> <p>NOTE: The CoE Admin is always the last signature placed on this document. The date of that signing is the date of this document.</p>	<p>Signature</p>
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