Los Alamos NATIONAL LABORATORY EST. 1943

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-10759	1.2 Revision: 0
1.3 Brief Descriptive Title: SKM Power Tool use in Nuclear Facilities	
1.4 Affected Program: Engineering Standards	1.5 Request Type: Alternate Method
1.6a Affected Tech Area 99	1.6b Affected Buildings Sitewide
1.7 Requestor: Apperson, Jason Wesley Organization: LI-PROJ	
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: P342 Engineering Standards If against the P document itself, revision (or ***N/A***): N/A	2.2 Subordinate or related document(s) [AP, master spec, LANL ESM chapter & section; or code, Order, standard, etc.]: Document Title/No.: Enter text.. STD-342-100, LANL Engineering Standards Manual, Chapter 7 - Electrical, Section D5000, General Electrical Requirements Revision 8 Document Title/No.: Enter text.. Revision Enter text.. Document Title/No.: Enter text.. Revision Enter text..
2.3 Section/Paragraph: Section 4.2, *Calculations*, A.1. 2nd Bullet	
2.4 Specific Requirement(s) as Written in the Document(s): SKM Power Tools for Windows® may only be used for low-voltage, non-nuclear[13] facility projects. [13]SKM may also be used for determining the incident energy of nuclear facilities for the purpose of PPE selection. In this case, the software is not being used to control, or determine the parameters of, a safety system.	
2.5 Contractual, preference, or other basis for requirement in 2.4: Supports ESM Chapter 21, Software, to ensure NQA-1 requirements are being adequately applied for Nuclear applications.	

2.6 Type of VAR from ESM Chap 1, Z10 [*Applies only to standards variances*)	2.7 Discipline
Type 2	Electrical

3.0 Request Information & Comments

3.1 NCR required (work has occurred)? No
If Yes, NCR Number: Enter text.

3.2 System/Component Affected	3.3 Highest ML Level
OpSystem Acronym & Name [Select OpSysAcronymAndName] System Number or Name [Select SystemNumberOrName] **N/A**	ML-1

3.4 Proposal with Justification/Compensatory Measures:

Background and Proposal:

ESM Chapter 7, Section D5000, R8, Section 4.2, A.1 bullet #2 permits use of SKM Power Tools for Windows® for low-voltage, non-nuclear facility projects and for determining incident energy of nuclear facilities for PPE selection. The revised language below expands its usage to nuclear facility projects if certain conditions are met.

The revised language below shall replace the requirement in ESM Chapter 7, Section D5000, Section 4.2, A.1:

1. Use the following electrical system analysis software, approved in accordance with ESM Chapter 21, as follows:
   - ETAP® is allowed for all projects.[12]
   - SKM Power Tools for Windows® may be used for low-voltage, non-nuclear facility projects. It may also be used for nuclear facility projects if the required Verification and Validation (V&V) process has been satisfactorily completed in accordance with ESM Chapter 21 and the software is listed as "active" Safety Software on the Institutional Safety Software Inventory website.

[12] ETAP® "nuclear version" meets ASME NQA-1 requirements.

Justification:

ESM Chapter 21 implements the Software Quality Assurance (SQA) requirements associated with NQA-1 for both Nuclear and Non-Nuclear service applications. Using Safety Software which has been evaluated to the requirements of ESM Chapter 21 provides reasonable assurance that the software will consistently, compliantly, and efficiently satisfy its intended use for nuclear service applications.

3.5 Attachments
Document Title or Description N/A

3.6a Project ID	3.6b: Project Name	3.6c: Code of Record Date
N/A	N/A	N/A

3.7 Duration:	3.8a If Finite Period, Start Date:	3.8b End Date:
Lifetime	Click to enter a date.	Click to enter a date

3.8c Provide the PFITS number for tracking removal/correction: N/A
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?: No 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 toEnter names using the controls provided, then **Save***

4.1 POC (Management Program Owner's Representative): Stromberg, Eric Roland	Organization ES-DO	Signature ERIC STROMBERG (Affiliate) Digitally signed by ERIC STROMBERG (Affiliate) Date: 2025.11.04 07:35:04 -07'00'
4.2 Facility Design Authority Representative [FDARName] FDAR signature not required ☒	Organization Enter text..	Signature
4.3 LANL Owning Manager (FOD or R&D/Program) [FODorPrgmMgrName] FOD or Program Manager signature not required ☒	Organization Enter text..	Signature
4.4 Quality Reviewer's Name: [QPAName] QPA review/signature not required ☒	Organization Enter text.	Signature

4.5 Safety or Security Management Program Owner's Approval for P341 and APs; P342, ESM and Contract Matters; and P343 Robert Swickley for Richardson, Michael Joseph SMPO signature not required (Type 1 variance) ☐	Organization ES-DO	Signature ROBERT SWICKLEY (Affiliate) Digitally signed by ROBERT SWICKLEY (Affiliate) Date: 2025.11.13 10:08:01 -07'00'
4.6 Additional Signer 1 [AdditionalSigner1] Role: Enter text.	Organization Enter text.	Signature
4.7 Additional Signer 2 [AdditionalSigner2] Role: Enter text.	Organization Enter text.	Signature

4.8 CoE Administrator Signature Leyba, Matthew Anthony NOTE: The CoE Admin is always the last signature placed on this document. The date of that signing is the date of this document.	Signature MATTHEW LEYBA (Affiliate) Digitally signed by MATTHEW LEYBA (Affiliate) Date: 2025.11.13 11:47:07 -07'00'