Tracking number (assigned by Approver): VAR- _____

1.0 Affected Document(s)

☐ Engineering Processes (e.g., P 341) ☒ Engineering Standards (e.g., P 342) ☐ Engineering Training & Qualification (e.g., P 343) Revision: _____	Subordinate Document if applicable (ESM Chapter, AP, etc.): Document Title/Number: Chapter 7, Electrical/D5010 Electrical Service & Distribution Systems Revision: 3, 11/3/08

Section/Para D5010, 2.6.4 Identification, part B.
Specific Requirement(s) as Written in the Document(s) Provide two typed 8-1/2" x 11" circuit directories for each power panelboard as shown in Figure 5010-1. *Guidance: Panelboard schedules produced by commercial software may be used if the same information is provided.*

2.0 Request

Request Title: Electrical Panelboard Schedule Revised Format Proposal				
TA-Bldg-(Room) and/or Project Affected Standards "Improvement" Proposal		System/Component Affected Branch Circuit Distribution System		
☒ Alternate Method ☐ Variance				
Proposal Reformat the power panelboard schedule in Figure 5010-1 to include a column for delineating non-coincident loads and a summary of the design basis loads from which the design load will be calculated. See attached Example Proposed Panel Schedule.				
Justification/Compensatory Measures Justification for adding non-coincident load column: The current standard panel schedule of Figure 5010-1 does not account for non-coincident loads as allowed by NEC 220.60. Several design A/Es have been including non-coincident loads in their panel schedule calculations, thereby oversizing equipment, claiming this is required by the standards. Justification for adding "Design Basis Load" summary: System engineers need to know the worst-case operating (or demand) loads on panels for maintenance and operations purposes. The connected load summary does not reflect operating load and the design load summary includes factors for sizing equipment – also not reflecting operating load.				
Duration of Request:	Start Date:		End Date:	☒ Lifetime
Requestor Deidre A. Witherell	Z Number 115143	Organization ES-DE	Signature *Signed original on file.*	Date 2/19/10
Design Authority Representative	Z Number	Organization	Signature	Date
ESM Only: LANL Owning Manager (FOD or Prog.)	Z Number	Organization	Signature	Date

3. POC Recommendation

☐ Accept   ☐ Decline   ☒ Accept with Modifications:
1. Instead of the term "design basis loads" use the term "estimated operating load." 2. In the load calculation, address non-coincident loads in accordance with Section 220.60 of the *NEC*. Document the logic used to identify and include the non-coincident loads to the satisfaction of the LANL Electrical AHJ. Guidance: *Typically, the non-coincidence of loads is based on either the nature of the loads (e.g. heating vs. cooling) or the nature*

of the operation (e.g. number and type of machine shop tools vs. number of operator personnel).

This "alternate method" is applicable to all projects. The next revision to Chapter 7 Sections D5000 and D5010 will include requirements and guidance for addressing non-coincident loads and a revised panelboard schedule similar to the one proposed in this application.

POC	Z Number	Signature	Date
David W. Powell	105801	*Signed original on file.*	17-Feb-10

4.0 Final Action

☒ Accepted	☐ Accepted with comments	☐ Declined	
Comments:			
Site Chief Engineer or Conduct of Engineering Office Director	Z Number	Signature	Date
Daniel Steinberg	219039	*Signed original on file.*	2/19/10