

<b>Subject:</b>  <b>Approval of Electrical Equipment and Electrical Installations</b>	<b>Effective Date:</b>  March 20, 2014	<b>Initiated by:</b>  Head, ESH&S Department
	<b>Supersedes:</b>  NEW	<b>Approved:</b>  Director

**Management System:** 09.00 ESH and Integrated Safety Management (ESH)  
**Management System Owner:** Head, ESH&S Department  
**Management Process:** 09.03 Electrical Safety  
**Process Owner:** Head, Safety Division  
**Subprocess:** 09.03.02 Approval of Electrical Equipment/Installations  
**Subprocess Owner:** Head, Safety Division  
**Subject Matter Experts (SMEs):** Head, Safety Division; Electrical Safety Specialist, Safety Division; Head, AC Power

**POLICY**

Electrical equipment and electrical installations shall be approved prior to use at PPPL or on PPPL fabricated equipment for use at outside facilities per the following:

1. Equipment labeled or listed by a Nationally Recognized Testing Laboratory (NRTL) is approved for PPPL use.
2. NRTL labeled or listed electrical equipment or components shall be purchased and used whenever they are available and are approved for both National Electric Code installations and installations covered under OSHA 1910, subpart S.
3. Any installation covered by NEC methods or materials shall use only approved methods and NRTL materials. Any requests to deviate from these requirements must be explicitly approved by the PPPL Authority Having Jurisdiction (AHJ) to ensure that it complies with the appropriate industry standards and workmanship (e.g. IEEE, ANSI, NEMA, etc.).
4. Engineered Electrical systems using non-NRTL equipment shall be purchased and use equipment that complies with the appropriate industry standards and workmanship (e.g. IEEE, ANSI, NEMA, etc.)
5. Engineered Electrical systems and electrical installations that include non-NRTL equipment are considered approved provided they are designed and installed in accordance with PPPL design verification policy and engineering procedures and safety requirements and are supported by sufficient test data or equivalent documentation to verify integrity.
6. All new construction and installations of electrical equipment must be approved by the Authority Having Jurisdiction (AHJ) and undergo a safety review performed by the Safety Division Electrical Safety Specialist or designee prior to turning a system over to operations or occupancy of the area per 5008, Section 2, Chapter 3. Per procedure QA-004, electrical inspections should be requested and included in installation procedures and performed by QC.

7. The applicable PPPL System Engineer for a particular system maintains the integrity of the system and has responsibility for obtaining any necessary reviews and approvals and for assuring that any repairs or modifications do not compromise the safe operation of equipment or installation.
8. For smaller electrical equipment, small projects, and subsystems, if a specific System Engineer has not been appointed, then the Responsible Line Manager maintains the integrity of the system and has responsibility for obtaining any necessary reviews and approvals and for assuring that any repairs or modifications do not compromise the safe operation of equipment or installation.
9. Any Electrical equipment removed from service and later restored to service or repurposed shall be considered a new installation and must therefore be approved by the Authority Having Jurisdiction (AHJ) and reviewed by the PPPL Electrical Safety Specialist.
10. The electrical configuration of the laboratory shall be maintained using applicable drawings. The AC Power Division is responsible from incoming power to the appropriate panel or disconnect switch that powers the system or equipment. Due to load and arc flash considerations, all electrical feed changes shall be approved by the AHJ.
11. The Responsible Line Manager and the Accountable Technical Individual/COG maintain the responsibility for ensuring that requisitions for purchase of electrical installations and electrical equipment clearly incorporate the requirements of this policy in the item description, specification, or statement of work (SOW), and that any items purchased via the Laboratory PCard system meet the standards imposed by this policy and implementing procedures.