

TEMPORARY CHANGE REQUEST

TCR NO. TCR-P-107, R0-001

(e.g., TCR-ENG-021,R0-001)

The Temporary Change Request (TCR) Form is to be used to process **urgent or minor changes** for PPPL Policies, Organization/Mission Statements and Procedures. The TCR should be used when changes are:

- 1) urgent, and can not wait the 2-4 week period for Department Head review/comment, or
- 2) minor, and do not warrant Department Head review.

Person Requesting Change: Jerry Levine Phone Ext: 3439

Department Name: ES&H

Document Number: P-107 Revision No.: 0

Document Title: Approval of Electrical Equipment and Electrical Installations

Reason for change:

Statement #5 of this Policy indicates that electrical systems and installations that include non-NRTL (Nationally Recognized Testing Laboratory) equipment are considered approved without approval of the AHJ (including third party inspections). This statement is not consistent with the current version of procedure ENG-023 (Electrical Equipment Approval). Statement #5 is revised for consistency with ENG-023.

Change description: (Summarize and attach changed pages, with changes clearly indicated)

Statement #5 has been changed to read: "Electrical equipment and electrical installations rated at 50 Volts or higher or 1000 Watts or higher shall be approved prior to use at PPPL or on PPPL fabricated equipment for use at outside facilities per NRTL labels or listings, or by the approval of the Authority Having Jurisdiction (AHJ) at PPPL."

1. Does this TCR significantly alter the intent or scope of the document? YES: NO:

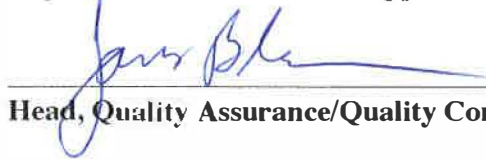
2. Does this TCR significantly impact ES&H? YES: NO:

If 1 or 2 is YES, Explain why the changes should not be routed for Department Head review:

Jerry D. Levine

Digitally signed by Jerry D. Levine
DN: cn=Jerry D. Levine, o=Princeton Plasma Physics Laboratory,
ou=ESH&S Department, email=jlevine@pppl.gov, c=US
Date: 2017.03.03 11:41:45 -05'00'

Department/Division Head Approval



Date

3/3/17

Head, Quality Assurance/Quality Control/designee

Date

Release/Effective date of this TCR: 3/3/17

Incorporate this TCR into next revision of this document? YES: NO:

Subject: Approval of Electrical Equipment and Electrical Installations	Effective Date: March 20, 2014	Initiated by: Head, ES&H Department
	Supersedes: NEW	Approved: Director

Management System: 09.00 ESH and Integrated Safety Management (ESH)
Management System Owner: Head, ES&H 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. Electrical equipment and electrical installations rated at 50 Volts or higher or 1000 Watts or higher shall be approved prior to use at PPPL or on PPPL fabricated equipment for use at outside facilities per NRTL labels or listings, or by the approval of the Authority Having Jurisdiction (AHJ) at PPPL.
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.