


PPPL	PRINCETON PLASMA PHYSICS LABORATORY ES&H DIRECTIVES		
	ES&HD 5008 SECTION 2, CHAPTER 3 General Requirements		
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CHAPTER 3 GENERAL REQUIREMENTS

3.1 SAFETY ANALYSIS AND SAFETY REVIEWS/INSPECTIONS

3.1.1. Modifications to existing and new projects may be required to have either a Safety Analysis Report (SAR) or Safety Assessment Document (SAD) depending on the safety analysis reviews performed on the activities per PPPL Procedure ESH-014, "National Environmental Policy Act (NEPA) Review System," and the requirements of ES&HD 5008, Chapter 11, Section 1, "Operations Hazards Criteria."

3.1.2. The documentation and installation of all new and retrofit electrical work shall be subject to a safety review performed by an ES&H Division Electrical Safety representative, Quality Control, and AC Power Representatives prior to energizing equipment. This is to verify compliance with the procedures, codes and standards that were in effect on the date that such work was approved by a final design review (FDR) or Project Configuration Controls action. If it is determined that the installation involves a hazard to life, equipment, or environment, then the current standards and codes shall be used to mitigate the hazard.

3.1.3 The ES&H Division Electrical Safety representative will conduct periodic inspections of the energy control procedures required by PPPL Procedure ESH-016 at least annually to ensure that the requirements of ESH-016 and OSHA (29 CFR 1910.147) are being followed for the control of potentially hazardous energy. These inspections will include relevant items required by OSHA in 1910.147© (6). **TCR ES&HD 5008 Sect. 2, Chapt 3, R10-001**

3.2 CODES AND STANDARDS

3.2.1. Electrical work shall comply with the latest revisions to the following codes and standards:

- A. National Electrical Code (NEC) - National Fire Protection Association (NFPA) No. 70
- B. National Electrical Safety Code (NESC) - ANSI C2
- C. Occupational Safety and Health Act (OSHA)
 - Title 29 CFR 1910 Subpart S - Electrical
 - Title 29 CFR 1926 Subpart K, Subpart V - Electrical
- D. Relevant DOE Orders - See Chapter 16, Paragraph M
- E. Relevant PPPL documents - See Chapter 16, Paragraph N
- F. NFPA 70E- Standard for Electrical Safety Requirements for Employee Workplaces

3.2.2. When conflicts arise between the mandatory requirements of the referenced codes and standards, the requirements that provide the greater personnel safety shall govern. The NESC "Administrative Authority" shall be the Head of Electrical Safety in the PPPL ES&H Division. The NEC "Authority Having Jurisdiction" is the Department of Energy Princeton Site Office (PSO) Manager or his/her designee.

3.2.3. Standards and prescriptive or performance specifications that are recommended by the Department of Energy and directly impact the safety practices and procedures of this Section 2.0, Electrical Safety are included in Chapter 16, "REFERENCES."

3.2.4. When no clearly applicable code or standard provides adequate guidance or when questions regarding workmanship, judgment, or conflicting criteria arise, personnel safety (not equipment protection or utilization) shall be the primary consideration.

3.2.5. Electrical installations at PPPL are not included under the jurisdiction of the New Jersey Electrical Subcode, Title 5:Chapter 23-3.16 of the N. J. Administrative Code.

