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| PRINCETON PLASMA PHYSICS LABORATORY | ENGINEERING STANDARD | No. ES-ELEC-003 Rev. 0 Page 1 of 2 |
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| Subject Electronics Fabrication: Soldering, Wire Termination, Electronic Assembly Construction | Effective Date 2/19/93 | Initiated  Electrical and Electronic Engineering Division |
| | Supersedes New | Approved  Engineering Department Head |

Applicability

This standard applies to all electronics fabrication performed at PPPL that is used as an element of project equipment or that has ES&H relevance.

Introduction

This standard defines the requirements for high reliability electronics fabrication workmanship at PPPL. It addresses fabrication processes such as hand soldering, cable termination, and assembly construction.

References

- Reference Manual #1342-A000 rev. A, "Electronics Manufacturing Standard" (10/91).
- ANSI/IPC-610A, "Acceptability of Electronic Assemblies"--Class 2 requirements or better (2/90).
- IPC-A-600D, "Acceptability of Printed Boards" (3/88).
- TFTR Cable Connection Termination Standard rev. 2 (3/83).

Standard

All electronic equipment fabricated at PPPL that is used as an element of project equipment or that has ES&H relevance shall conform with the following:

- Work will be performed in accordance with applicable standards, among them the standards listed in the reference section of this standard, especially Reference Manual #1342-A000 (attached as Appendix 1).
- Work will be performed by a trained and certified electronics technician, who has completed appropriate Mercer County Community College qualification course(s) or equivalent. Certifications may include PACE certification or Mercer County Community College Certification of Completion.
- The designated QA/R representative for the project/department will inspect the electronic fabrication project at appropriate inspection steps, using the documents listed in the reference section of this standard to insure quality and reliability.

Attachment:

Appendix 1—Reference Manual #1342-A000 rev. A, "Electronics Manufacturing Standard" (10/91).

Appendix 1:

Reference Manual #1342-A000 rev. A, "Electronics Manufacturing Standard" (10/91). (Issued separately by the Electrical and Electronic Engineering Division)