



Tables and Tools – Utility Arc Flash Made Easy

8-Hour Course

OVERVIEW

Tables & Tools is a practical application course on using NESC tables, the updated OSHA arc flash table methodology, and IEEE 1584 in an arc flash assessment. The updated OSHA regulations clearly define what is needed to do “reasonable” incident energy estimates. The class will focus on these tables and the 2014 1910.269 standard to assure that the estimates reflect as closely as possible the results of the testing on real utility equipment. The class will also give step-by-step instructions on the use of ARCPRO software and IEEE 1584 for efficiently calculating arc flash for utilities.

REFERENCES

OSHA 1910.269, NESC C2, IEEE 1584, EPRI

MATERIALS

e-Hazard Tables and Tools Workbook

1. Introduction

- Standards & Regulations
- Hazard Assessment Methodologies
- PPE

2. Arc Hazard Assessment Prerequisites

3. Determining the Arc Hazard

- OSHA 1910.269, Appendix E and 1926 Subpart V
- ARCPRO Software
- IEEE 1584
- NESC C2 and the OSHA Letter of Interpretation
- EPRI – New Formula

4. Application of Arc Assessment to Utility Systems

- Results from Utility Equipment Testing
- Creating Your Customized ARCPRO Tables
- How to Triage Through Your System by Major Area / a Step-by-Step System
 - Substation Busses
 - Substation Station Service
 - Substation Batteries
 - Transmission Lines
 - Distribution Lines
 - Customer Service Equipment
 - Generation Facilities
 - Utility-Owned Buildings

5. Mitigation and Procedure Development

- Protection Changes
- Equipment Replacement
- Interim Administrative Controls