Missouri Valley JATC Mobile Training Services
Grounding & Bonding Course

COURSE DESCRIPTION
The objective of this course is to allow trainees to learn and apply the necessary skills needed to establish a safe equal potential work safety zone when working on overhead structures. A combination of classroom lecture and optional field performance outcomes are used to develop and measure trainee knowledge and skill for overhead grounding operations. The course also aligns all employees on the key points directly related to company policies and work procedures.

LEARNING OBJECTIVES

Module 1– Theory of Grounding and Bonding

- Explain how equipotential zones keep lineworkers safe.
- Predict how voltage, current, and resistance will behave in series, parallel, and combination circuits.
- Demonstrate how to use barricades to protect worksites and people.
- Identify methods through which a line can become accidentally re-energized.

Module 2– Identifying and Mitigating Hazards Using a Grounding Plan

- Explain the elements of the Energy Wheel that apply to grounding and bonding.
- Describe how to work safely in situations related to grounding and bonding.
- Explain step and touch potential.
- Explain how grounding plans help create equi-potential zones.
- List the steps of the grounding process.

Module 3 – Grounding Jumper Sizing and Inspection

- Demonstrate how to size jumpers according to fault current.
- Explain how to inspect grounding equipment.
- Describe the proper installation of grounding equipment.
- Follow the grounding process order when creating an equipotential zone.

Module 4 – Optional Course Exercises:

- Conduct third party field proficiencies ensuring workers show proper grounding and bonding application.
- Build work specific grounding plans based on customer needs and specific structures.

Required Material–

- PPE As needed. (Hard Hat, FR Clothing, Safety Glasses, Body belt, Fall protection, lanyard, work boots.
- Pictures of actual structures.
- Grounds - For Application (Optional)
- Voltage Tester (Optional)
- Live Line Tool (2-4 shot-guns)

Delivery Format- Instructor lead / Classroom / Field Hands on (Optional)

Student Ratio: Max class size for Classroom is 25. Field application typically sized @ 12 students.

Learner Assessment:
Optional Quiz w/ 80% or higher pass rate.
Third party practical exam (Optional)