



# TRAINING OUTLINE

**COURSE TITLE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_ **INSTRUCTOR:** \_\_\_\_\_

**LOCATION:** \_\_\_\_\_ **TIME:** \_\_\_\_\_ **COMPANY:** \_\_\_\_\_

*Safety training was conducted on the above date by the instructor indicated. The following line items identify the topics covered during the training session.*

## SUMMARY OF TRAINING

### 1) Introduction

- a) Qualified Person
- b) Standards
- c) NESC & IEEE
- d) Job Hazard Analysis
- e) Job Briefings
- f) Emergency Response Plan
- g) Why Training

### 2) Grounding

- a) Fault Currents & Shock Factors
  - i. Fault Currents
  - ii. Fault Current Contact
  - iii. Contributing Shock Factors
- b) Protective Grounding Equipment
- c) Grounding Cables
- d) Clamps
- e) Ground Electrodes
- f) Ground Rods
- g) Vertical Ground Wires
- h) Communication Cable Sheaths & Shields
- i) Guy Wires
- j) Cluster Bars
- k) Live-Line Tools
- l) Safe Grounding Practices
  - i. Installing an Electrode
  - ii. Apply a Cluster Bar
  - iii. Cleaning the Conductor
  - iv. Applying Grounding Cables
  - v. If Using a Cluster Bar
  - vi. Grounding work Vehicles



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vii. Establishing Barricades

m) Grounding Removal

## 3) Equipment

a) Heavy Machinery

- i. Pre-Shift Inspection
- ii. Key Off (Exterior)
- iii. Key On (Interior)
- iv. Modifications
- v. MADs
- vi. Stability
- vii. Ground Condition
- viii. Outriggers & Stabilizers
- ix. Communication
- x. Hand Signals
- xi. Aerial Lifts (MEWPs)
- xii. Grounding
- xiii. Boom-Current Test
- xiv. Bushings or Insulator Strings
- xv. Handlines
- xvi. Passing Objects to Workers

b) PPE

- i. Hard Hats
- ii. Gloves
- iii. Sleeves
- iv. Foot Protection

c) Fall Protection

- i. Fall Protection Program & Plan
- ii. Equipment & Inspection
- iii. Testing
- iv. PFPSs
- v. Body Wear
- vi. Full Body Harness
- vii. Body Belts
- viii. Anchorages
- ix. Inspecting Anchorages
- x. Prohibited Anchorages
- xi. Connective Devices
- xii. Snap Hooks



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- xiii. Lanyards
- xiv. Non-Shock- Absorbing Lanyards
- xv. Inspecting Lanyards
- xvi. Donning Body Wear
- xvii. Donning Body Belt
- xviii. Using Connective Devices

## 4) Safe Operations

### a) Wood Poles

- i. Pole Inspection
- ii. Shell Rot & Decay
- iii. Cracks
- iv. Holes & Knots
- v. Burn Marks
- vi. Testing Wood Poles
- vii. Hammer Test
- viii. Climbing Equipment
  - 1. Body Belt
  - 2. Safety Strap
  - 3. Gaffs & Climbers
  - 4. Cutout Test
- ix. Climbing Techniques
  - 1. Two-Point Technique
  - 2. Three-Point Technique

### b) Setting & Moving Poles

- i. Working Beneath Towers & Structures
- ii. Working Near Live Lines
- iii. Placing Wet Poles
- iv. Holes
- v. Tag Lines
- vi. Adverse Weather
- vii. Loading Poles
- viii. Hauling Poles
- ix. Unloading Poles

### c) Installing & Removing Lines

- i. Work Safe
- ii. Bracing
- iii. Guys
- iv. Insulators



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- v. Load Rating
- vi. Inspecting Lines
- vii. Testing Lines
- viii. Pulling Lines
- ix. Conductor Grips
- x. Induced Voltage
- xi. Tension Stringing Method
- xii. Pullers & Tensioners
- xiii. Reels
- xiv. Grounding
- xv. Clearance
- xvi. Suspension Strand
- xvii. Disabling the Automatic Reclosing Feature
- xviii. Tension & Sag
- xix. Catenary & Parabolic Sag Equations
- xx. Clipping-In or Tying Wires
- xxi. Secondary Lines
- xxii. Removing Lines
- d) Live-Line Work
  - i. Existing Conditions
  - ii. Insulated Tools & Equipment
  - iii. Bucket Liners
  - iv. Bonding Workers
  - v. Approach Distances
  - vi. Cable Fault Locating & Testing
  - vii. Working Position on Poles
  - viii. Adverse Weather
- e) Tree Trimming
  - i. Deenergizing Lines
  - ii. Inspection
  - iii. Minimum Work Distances
  - iv. Safe Operations
  - v. Storm Work
  - vi. Saws
    - 1. Chainsaw
    - 2. Kickback
    - 3. Pole Saws
  - vii. Tree Climbing



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- f) Other Considerations
- g) Lead Work
- h) Towers
- i) Portable Power Equipment
- j) Vehicle-Mounted Generators
- k) Portable Lights & Equipment
- l) Tent Heaters

## 5) Rescue

- a) Emergency Action Plans
- b) Medically Trained Personnel
- c) First Aid Kits
- d) Pole-Top Rescue
  - i. Evaluate
  - ii. Protect Yourself
  - iii. Equipment
  - iv. Communication Devices
  - v. Handlines
  - vi. Climbing
  - vii. Evaluate the Victim
  - viii. Lowering the Victim
  - ix. Aid
  - x. Aerial Bucket Assist
  - xi. MEWP Rescue
- 1. Dump Feature
- e) Tower Rescue
- f) Effective Communications
- g) Rescue Site Location
- h) What is Wrong?
- i) Rigging Considerations
- j) Aid

## 6) Case Studies

## 7) Conclusion