

IMEA 611

Basic Construction/Maintenance Workshop

Workshop Objective

To provide workshop participants instruction on 200 amp underground distribution system construction and overhead distribution construction including staking, pole setting, pole framing, and pole guying as well as bucket truck and digger derrick operation.

Upon successful completion, participants will be able to demonstrate the knowledge and skill needed for tool and material identification, basic equipment operation, and basic underground and overhead construction methods under de-energized conditions.

DAY 1

- 9:00 Welcome, Introductions, and Workshop Safety Rules
- 9:30 Entrance examination
- 11:00 Field Exercise
 - Pole climbing
- 12:00 Lunch
- 1:00 Equipment Video “Digger Derrick Operation”
- 2:00 Field Exercise
 - Pre-trip inspection
 - Truck site set-up
 - Staking
 - Digging pole hole
 - Pole setting
- 3:30 Daily Review and Discussion

DAY 2

- 8:00 Construction Drawings
- 9:00 Field Exercise
 - Pole setting continued
 - Tangent single arm construction
 - Guying and dead-end construction
- 12:00 Lunch
- 1:00 APPA Video “Excavation and Trenching Safety”
- 2:00 Field Exercise
 - URD staking
 - Trenching
 - Dig pad-mount base with mini-hoe
 - Lay conduit and back fill
 - Set pad-mount base
 - Set pad-mount
- 3:30 Daily Review and Discussion

DAY 3

8:00 Wire and insulator characteristics

9:00 Field Exercise

- Wire tying practice
- P-line use
- Wire pulling
- Wire slacking
- Wire tie-in
- Wire grounding

12:00 Lunch

1:00 Cable characteristics

2:00 Field Exercise

- Pad-mount grounding
- Cable pulling
- 200 amp elbow construction

3:30 Daily Review and Discussion

DAY 4

8:00 Tool and Material Identification

9:00 Field Exercise

- Hang terminator equipment bracket
- Hang fuse
- Hang lightning arrestor
- Hang single phase transformer
- Hang fuse
- Hang lightning arrestor
- Single Phase Transformer Connections

12:00 Lunch

1:00 UG Protective Devices

Field Exercise

- Cable termination
- Install pad-mount lightning arrestor
- Install UG fault indicators
- Cable testing
- Cable grounding

3:30 Daily Review and Discussion

DAY 5

8:00 Field Exercise

- String tri-plex secondary
- Hang service drop to weatherhead
- Remove grounding
- Fuse installation/operation

12:00 Lunch

1:00 Workshop Examination

All workshop participants shall bring the following:

- TEXT BOOKS, Study Guide, and Safety Manual
- Hard hat
- Safety glasses
- Leather work gloves
- Climbing boots
- Long sleeve shirt
- Climbing equipment (body belt, safety strap and climbers)
- Rain gear
- Lineman’s pliers (kleins)
- knife
- 12” crescent wrench
- Channel-lock pliers
- Flat screwdriver
- Hammer
- 6 ft. folding ruler
- URD cable preparation tools