



Missouri Valley JATC Mobile Training Services

Insulate & Isolate Training Course

Mobile Training Services

Insulate and Isolate Techniques for the Live Line Tool Method on Distribution Lines

The Insulate and Isolate (I&I) Technique for the Live Line Tool Method on Distribution Lines requires an effective use of I&I equipment and procedures to provide the necessary level of safety when performing live line work on energized lines and equipment.

Insulating Protective Equipment (IPE) and Insulating Personal Protective Equipment (IPPE) are used to protect the line worker while working on or within 5 feet (including extended reach) of energized lines/equipment. IPE includes rubber gloves and sleeves, whereas IPE includes r blankets, line hose, hoods, plastic covers, etc.

The isolation technique is used to physically separate, both mechanically and electrically, the employee from all sources of energy. The insulate & isolate course includes the following training objectives.

- Minimum Approach Distances (M.A.D.) that are set forth by 29 CFR 1910.269 need to be followed.
- Employees using this method will be trained in and familiar with safety related work practices, procedures and other safety requirements that pertain to their respective job assignments.
- Discussing the working position, the approved and properly rated insulate and isolate for the voltage to be worked and how it can be used and applied on the energized conductors and/or other conductive parts at a different potential.
- Proper application of Insulating Protective Equipment (IPE) to prevent accidental/inadvertent contact with any conductive object within your extended reach that could have a difference of potential and would allow current to pass through the body.
- Discuss an employee's unprotected hands and/or arms positioning within the MAD of exposed energized lines or equipment, and how appropriately rated rubber gloves and sleeves shall be worn, or effective cover shall be applied.
- Reviewing proper insulating equipment and illustrating how it will be installed in the order of "nearest first" and removed in reverse order.

Additional Training Items:

- Depending on mobile training agreement, field application can be applied.
- Field application includes a third party review and examination of employees working in the field near energized components with a proficiency applied to determine if the individual is capable of applying the classroom applicaiton.
- Course does include a classroom test that will be administered and graded as a group.
- The Qualified Observer course is well applied and often used in conjunction with this course.



Missouri Valley JATC Mobile Training Services Qualified Observer Course Description.

Injuries that are caused by unrecognized hazards and changes in work conditions can be offset or eliminated using a qualified observer.

These well-informed crew members will help in ensuring that clearances are maintained, proper equipment is used and effective cover up is installed. This best practice also outlines the criteria of what constitutes a qualified observer.

- A member of the crew shall be identified to act as an observer to ensure clearances are maintained, PPE is used and effective cover-up is installed. The observer shall be capable of identifying nominal voltages, energized components, minimum approach distances and proper safe work practices while crew members are working on energized lines.
- Define: "Effective cover up" is used to describe the installation of phase-top phase rated insulating protective cover on energized conductors and/or equipment of different potentials when the lineman is within reaching distance or in areas extended by handling conductive objects.
- Define "Extended reach" is used to describe personnel or conductive equipment coming within five feet of energized conductors or equipment.

Following this practice will assist in eliminating injuries from unrecognized hazards or change in conditions. It will also clarify the duties and provide guidance as to when the use of qualified observers are beneficial.