



Missouri Valley JATC Mobile Training Services

OSHA 10 ET&D Certification Course

2 Day Workshop

COURSE DESCRIPTION

The Electrical Transmission and Distribution certification course is a non-traditional, industry specific training course tailored toward employees involved with the construction and maintenance of power transmission and distribution systems. Each module is tailored specially toward the power transmission and distribution industry. Although this course is based on the current OSHA 1910 and 1926 standards, the course material also discusses consensus standards, industry accepted best practices, the OSHA Focus 4 topics in addition to equal-potential grounding and bonding, flame resistant clothing, electrical arc protection, and pre-job briefings. Students completing this course receive a traditional OSHA 10-Hour for Construction card marked with an ET&D Partnership designation. .

LEARNING OBJECTIVES

Module 1 – Introduction to OSHA:

This is a one-hour training component emphasizing workers' rights. It is required content in every 10-and 30-hour OSHA Construction, General Industry, and Maritime Outreach course. OSHA developed the component in support of the Secretary of Labor's goal of strengthening the voice of workers on the job.

- Explain why OSHA is important to workers.
- Explain worker rights under OSHA.
- Discuss employer responsibilities under OSHA.
- Discuss the use of OSHA standards.
- Explain how OSHA inspections are conducted.
- Utilize helpful worker safety and health resources.

Module 2- Electrical Safety:

This training module is designed with the intent that all employees have an understanding of the OSHA regulations and safe work practices that apply to electrical safety for workers that work on or near energized parts. Upon successful completion of this training module, the attendee should be able to:

- Describe the causal factors & types of injuries that may result from an unintentional electrical contact Explain why OSHA is important to workers.
- Explain the difference between Qualified vs. Non-Qualified electrical workers.
- Define approach distances as it relates to work in proximity to energized parts for qualified and non-qualified workers.
- Demonstrate the ability to determine the Minimum approach distance for qualified and non-qualified work being performed.
- Describe methods to care for and inspect insulating equipment.
- Highlight where to find information.

Module 3- Grounding and Bonding

This training module is designed with the intent that all employees have an understanding of the OSHA regulations and safe work practices that apply to temporary grounding and bonding as they relate to the work activities they may perform. Upon successful completion of this training module, the attendee should be able to:

- Define the three basic properties of electrical theory.
- Identify reasons for installing temporary grounds.
- Illustrate ways a circuit can become unintentionally re-energized.
- Define both step and touch potential.
- Discuss terms associated with grounding and bonding.
- Illustrate grounding & bonding equipment selection and discuss its performance abilities under varying scenarios.
- List the steps required to safely de-energize a system or circuit.
- Discuss various methods to establish and build a zone of equal potential.

Module 4- Lifting and Rigging

This training is designed to give you a brief understanding of the requirements for rigging equipment as it relates to our industry. Some of the items to be covered include: the main causes of crane accidents; pre-use inspection of cranes and derricks; precautions to be taken when working near energized lines and equipment; inspection and use of rigging equipment; and determining safe working loads for rigging and equipment.

- Discuss the main causes of crane accidents.
- Explain the role of the competent person in pre-use inspection of rigging & equipment.
- Explain the need for planning a lift.
- Inspection and safe use of rigging-removal criteria.
- Explain methods of safe manual lifting.
- Explain lift truck safety.



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Module 5– Personal Protective Equipment.

This training module was made with the intent that all employees have an understanding of the OSHA regulations and safe work practices that apply to personal protective equipment. They should also gain insight on the care, maintenance, and use of personal protective equipment as it relates to the work activities they may perform. Upon successful completion of this training module, the attendee should be able to:

- Describe the hierarchy of controls.
- Explain employer responsibilities regarding PPE.
- Explain employee responsibilities regarding PPE.
- Identify workplace hazard that may require PPE.
- Illustrate how to identify PPE.
- Demonstrate how to field test rubber insulating gloves.
- Describe the hazards of arc flash and the benefits of wearing protective clothing.

Module 6- Pre-Job Briefings:

This training module was made with the intent that all employees have an understanding of the OSHA regulations that apply to Pre-Job briefings and that after completing the module will have a better understanding of items that should be discussed by crews that may perform them. Upon successful completion of this training module, the attendee should be able to:

- Explain the need for Pre-job Briefings.
- Explain subjects to be discussed.
- Explain employer responsibilities.
- Explain employee responsibilities regarding job briefings.

Module 7- Trenching and Excavations:

This training module was made with the intent that all employees have an understanding of the OSHA regulations that apply to trenching & excavation work and that after completing the module employees will have a better understanding of hazards and safeguards that should be discussed by crews that may perform that work. Upon successful completion of this training module, the attendee should be able to:

- Define the criteria for a trenching & excavation (T&E) competent person.
- Explain the role of the T&E competent person.
- Describe the hazards of working in an unprotected trench.
- Illustrate the various types of protective, shoring, and sloping systems.
- Describe the means of access and egress
- Identify the application and use of the 811 one call system.

Module 8- Confined Space:

This training module was made with the intent that all employees have an awareness of some of the OSHA regulations that apply to Confined and Enclosed spaces and that after completing the module the attendee will have a better understanding of items that should be discussed by crews that may perform work in them. Upon successful completion of this training module, the attendee should be able to:

- Explain the changes in existing OSHA standards
- Describe the new OSHA standard governing construction work in confined spaces
- Discuss potential hazards of these spaces and the importance of knowing when and what to do in an emergency.
- Define a confined space, a permit required confined space, and an enclosed space
- List the pre-entry test requirements to safely enter and exit a confined space.

Module 9- Fall Protection:

This training module was made with the intent that all employees have an understanding of the OSHA regulations regarding fall protection and some safe work practices that apply to fall protection/prevention/positioning systems encountered during work activities they may perform. Upon successful completion of this training module, the attendee should be able to:

- Describe at least three methods of protecting electrical workers from falls.
- Explain the difference between the various systems.
- Explain requirements to use fall protection.
- Explain equipment inspection requirements.
- Explain how to calculate fall distance.
- Explain anchorage and training requirements.