Safety Regulations for Electric Power Generation, Transmission, and Distribution

Mike Bahr
Castle Rock Safety, LLC

Overview

OSHA first issued rules for the construction of transmission and distribution installations in 1972. Those provisions are now out of date and inconsistent with the more recently promulgated general industry standard covering the operation and maintenance of electric power generation, transmission, and distribution lines and equipment.

OSHA has revised the construction standard to make it more consistent with the general industry standard and has made revisions to both the construction and general industry requirements. The rules for general industry and construction now include new or revised provisions on host employers and contractors, training, job briefings, fall protection, insulation and working position of employees working on or near live parts, minimum approach distances, protection from electric arcs, deenergizing transmission and distribution lines and equipment, protective grounding, operating mechanical equipment near overhead power lines, and working in manholes and vaults. These standards will ensure that employers, when appropriate, must meet consistent requirements for work performed under the construction and general industry standards.

It is widely recognized that electric-utility-type work requires special knowledge and skills. In order to gain the requisite knowledge and skills to employ these work practices, employees must be adequately trained. This course is designed to ensure that all employees covered under 1910.269 and 1926. Subpart V are familiar with the safety-related work practices, safety procedures, and other personnel safety requirements in these standards that pertain to their respective job assignments. This training is necessary to ensure that employees use the safety-related work practices outlined.

By drawing from personal experience, the instructor will answer important questions regarding the OSHA requirements of 1910.269 and 1926 subpart V, including, but not limited to:

- What type of work falls under these standards?
- Who needs to be trained?
- Do all sections of the standards need to be covered?
- Are all my employees exposed?
- What is the difference between construction work and maintenance work?
- Is retraining required, how often?
- What information is the host employer required to transfer to the contractor?
- How do companies assess the arc flash hazard?
- Are all employees required to wear arc rated clothing?
- What are the three methods of preventing a fall?
- How do you meet the 100% fall protection rule?
- What are the requirements for personal protective grounding?

Learning Outcomes

- Explain the regulatory requirements for enclosed spaces
- Explain and define PPE requirements
- Define which regulations apply to your company
- Explain arc flash assessment methods
- Discuss how to make estimates over multiple system areas
- Explain how to choose between the table method and the calculation method of arc flash hazards assessment
- Explain how to identify those employees who may as a result of the work they perform be exposed and how to determine the probability that an arc will occur
- Discuss 100% fall protection rule
- Discuss the three methods recognized by OSHA for preventing and arresting a fall from elevation
- Discuss methods for protecting employees working on or near exposed energized lines and equipment
- Discuss how to reduce arc flash clothing costs
- Explain arc flash clothing layering
- Discuss proper methods for deenergizing lines and equipment Explain grounding requirements, including how to establish an equi-potential zone
- Discuss safe work practices for substation work, including high voltage testing
- Discuss safe work methods for underground electrical installations

Format

This program can be tailored to meet the client's requirements for a one-day workshop or a 60-90 minute breakout session.

About Mike Bahr

Mike Bahr, an associate of the Safety Institute, has been a safety professional in the electrical industry for over 30 years. After being injured in an electrical accident in 1985, Mike has dedicated his career to the safety profession in the electrical utility/construction field. Mike has developed and presented training for utility workers worldwide and is a former principal member of the NFPA 70E committee (Electrical Safety Related Work Practices). Mike also served as the principal investigator for the development of the Department of Energy (DOE) electrical safety program.

For more information, contact Mike:

Email: mikeb@safetyinstitute.com

Cell: 970-765-5542