

# COMPLYING WITH ELECTRICAL SAFETY STANDARDS

Why is it important?  
How does it impact your organization?



It is clear that electricity can produce a serious workplace hazard. Through the compliance of proven safety standards, an environment can be created where employees will be safe from the risks of an electrical incident. The practices required by OSHA and outlined by the NFPA 70E® standards will help to accomplish this goal.

OSHA regulations are federal law and establish a general framework for guarding against danger. The NFPA 70E standard details the safe work practices for protecting personnel by reducing exposure to major electrical hazards. The standard is based on industry best practices and represents a consensus on what experts consider safe, thus it is referenced by OSHA for ensuring compliance with regulations. NFPA 70E includes guidance for hazard identification and risk assessments, selecting appropriate personal protective equipment (PPE), establishing an electrically safe work environment, and employee training.

In 2016, OSHA fines for violations of workplace safety laws have increased for the first time in 25 years. The fines are expected to increase by roughly 80 percent, which would mean that the maximum penalty for a willful and repeat violation would rise to about \$127,000 from the current \$70,000. After this increase, OSHA will also be allowed to adjust its penalties every year based on inflation. Employers are strongly encouraged to assess their workplace for hazards and ensure that their safety program and training is comprehensive and up-to-date.

## Total Compliance Solutions

Whether evaluating your organization against compliance to a regulatory standard for the first time, or seeking an assessment of your current compliance status, Salisbury Assessment Solutions can help you manage these efforts.

Compliance to regulatory requirements requires a dedicated focus and a level of expertise that is difficult for many organizations to staff and support over time. Salisbury Assessment Solutions will ensure that you achieve your goals in the most efficient and cost-effective manner.

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**SAS can help you bridge the gap between your business operations and an electrically safe workplace. Put our experience to work to ensure the highest levels of productivity along with the confidence that your employees are safe.**

**For More Information**  
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## **OSHA REQUIREMENTS**

Employers must assess their workplace to determine if electrical hazards exist and address any areas of non-compliance. If there are hazards present that require the use of PPE, the employer is required to supply the appropriate PPE and training for its employees.

There are additional requirements for employers to mark electrical equipment with descriptive markings that include the voltage, current, wattage and other ratings. Alerting techniques, such as safety signs and tags, or barricades, must be used to warn and protect employees from hazards that could result in an injury. If you are having difficulty with reinforcing this compliance, then general awareness training may be needed for your facility. SAS offers classroom and online training, making it very easy to increase your facility's awareness of electrical hazards.

## **NFPA 70E STANDARD**

One of the guidelines within the NFPA 70E standard is the requirement for an overall electrical safety program, which specifically includes identifying and quantifying the risks of both shock and arc flash hazards. In order for the program to be effective, there is also a requirement for ongoing electrical safety training. Any employee working near exposed, energized electrical equipment must be trained. Additionally there are ongoing requirements to document the training content, retrain employees at least every three years, and auditing of the safety program. A written safety program can be included in the scope of work for SAS.

New arc protection standards were implemented in 2015. These provisions identified the requirement for employers to conduct an arc flash risk assessment and make reasonable estimates of the incident energy to which an employee might be exposed, and provide the appropriately rated protective clothing and other equipment. Based on the results of the arc flash analysis, any equipment that might require examination or maintenance must be labeled with such details as the incident energy, arc flash boundary, nominal voltage and the required PPE for both shock and arc flash protection.

One of the deliverables of an arc flash assessment is an updated one-line diagram of your facility. An accurate one-line diagram is needed to be compliant with the NFPA 70B requirement for lockout/tagout (LOTO), a process to safeguard employees from the unexpected startup or release of hazardous energy from electrical equipment during maintenance activities. Without a current one-line diagram, circuits have to be manually traced back to their energy sources every time service needs to be performed, which can be both time consuming and unsafe.

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