

Maintenance Tips

Arc Flash CSA Z462 Workplace Electrical Safety

The National Fire Protection Association (NFPA 70E) and CSA Z462 requires facility owners to perform an Arc Flash Hazard Analysis (“AFHA”) prior to allowing any worker to perform a task on energized equipment. The AFHA identifies the presence and location of potential electrical hazards and provides necessary safeguarding of workers during activities such as the installation, inspection, operation and maintenance, and demolition of electrical conductors and equipment.

An AFHA determines the following critical criteria:

- a. Up-to-date single-line power distribution drawings
- b. Arc flash boundary
- c. Incident energy at working distance.
- d. Personal Protective Equipment that persons within the arc flash boundary should use
- e. Arc flash labeling of all electrical distribution equipment
- f. Identification of high-risk areas
- g. Mitigate risk of injury
- h. Electrical safety and arc flash training of staff and contractor

The AFHA needs to be updated whenever a major modification or renovation takes place. The AFHA needs to be periodically reviewed, not to exceed five years, to account for changes in the electrical distribution system that could affect the results of the analysis.

The AFHA needs to take into consideration the design of the over-current protection device/s and their opening time, including their maintenance condition.

There are an additional number of requirements under AFHA, such as safety-related workplace practices and safety related requirements that the owner of the equipment, Systems areas and respective staff and contractors are required to adhere to.

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