

ARC FLASH

When a flashover of electric current leaves its intended path and travels through the air from one conductor to another, or to the ground, an arc flash occurs. It can be detrimental if you or a colleague is in close proximity to the arc flash. Arc flash can cause serious injury or even be fatal. Therefore, it is important to understand how to avoid it.

Dust, dropping tools, accidental touching, condensation, material failure, corrosion, and faulty installation can cause arc flash. There are three factors that determine the severity of an arc flash injury:

- Proximity to the hazard
- Temperature
- Time for circuit to break

In the event that you experience an arc flash injury, your quality of life may never be the same. It can result in burns, fires, flying objects, blast pressure, and a sound blast.

The National Fire Protection Association (NFPA) has developed shock and arc flash boundaries designed to protect you when working on or near energized equipment. They include the following:

- Limited Approach – distance from an exposed energized electrical conductor or circuit part within which a shock hazard exists. No unqualified workers are allowed inside this boundary.
- Restricted Approach – distance within which there is an increased risk of shock, due to electrical arc over combined with any inadvertent movement while working close to an energized electrical conductor or circuit part.
- Arc Flash Boundary – distance within which an arc flash hazard exists and the incident energy level could cause severe damage and appropriate PPE is needed. At 1.2 cal/cm² second degree burns occur.

If you are determining what the appropriate boundary should be for a given hazard, assess the severity of the hazard. A variety of factors that will impact what the safe approach boundary will be. These include level of voltage, atmosphere and other activities being conducted in proximity to the hazard.



DISCUSSION QUESTION

What does limited approach mean?

SAFETY TALK ATTENDANCE ROSTER



COMPANY: _____ JOB/DEPT: _____

DATE: ____/____/____ TIME: _____

TOPICS ADDRESSED: _____

EMPLOYEE'S SIGNATURES:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

EMPLOYEE SUGGESTIONS AND RECOMMENDATIONS: _____

ACTION TAKEN: _____

Supervisor's Signature

____/____/____
Date

Safety Coordinator's Signature

____/____/____
Date