

ARC FLASH

TOOLBOX TALK SERIES – ELECTRICAL SAFETY

September 2022

There are roughly 30,000 arc flash incidents every year. Of these incidents they result in 7,000 burn injuries, 2,000 hospitalizations and 400 fatalities.

What is an arc flash?

In simple terms, an arc flash is an electrical short circuit in air. Arcs can occur between live phases to ground or from phase to phase. An example of an arc flash in the environment is lightning. An industrial example is arc welding.

- Arc flashes can top 35,000°F (FYI the Sun is only 9,000°F).
- Arcs can vaporize metal to 67,000 times their normal volume.
- Arc flashes can occur at any voltage but are more probable above 480v



Category 4 Arc Flash PPE



How to protect yourself

- Only trained and qualified employees should be working on electrical equipment.
- Equipment should be de-energized, grounded and verified prior to commencing work.
- If work must be done hot, the appropriate PPE should be utilized. A work/safety plan shall be developed prior to work. Insulated tools must be utilized. A safety briefing must be conducted prior to work.