

Electrical hazards can cause severe burns, shocks, fires and electrocution (death).

## Qualified Persons



- Only qualified persons are trained to work on or near energized parts.
- Prior to working on any electrical equipment, even something as small as changing an outlet or replacing a switch, a qualified person must be trained and knowledgeable on how to perform that work safely. If you are not a trained, qualified person, you should not be working on any electrical equipment.
- Qualified persons must also have training on appropriate PPE and electrical safety procedures.

## Unqualified persons:

- MUST NOT work on exposed energised parts.
- MUST stay at least 10 feet away from exposed energized parts.



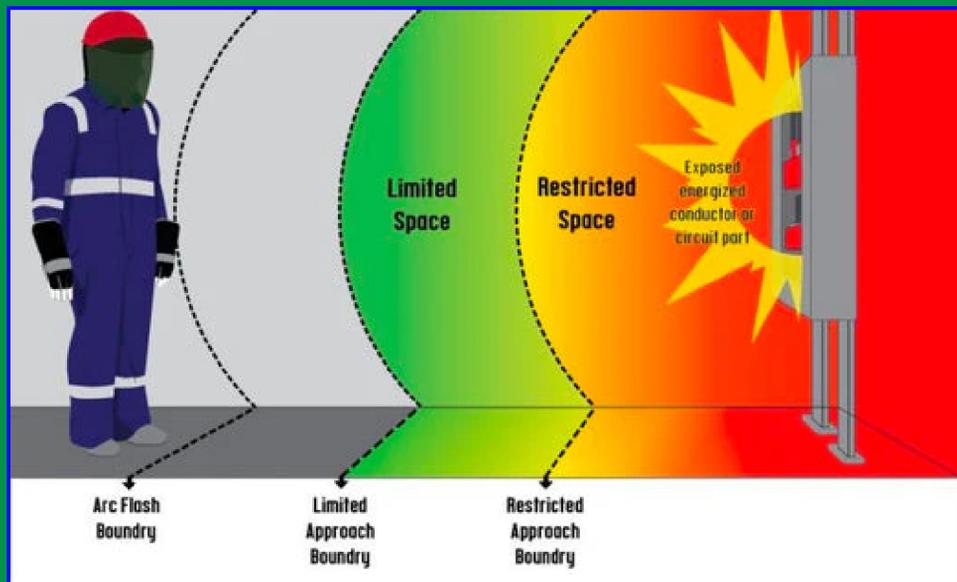
## Electrical Safety at Work Best Practices:



- Inspect powered tools and equipment for damaged wire insulation or connections.
- Don't overload circuits.
- Use the right size and type of extension cords for temporary job tasks.
- Use a qualified person to lock and tag out circuits and equipment before exposing energized parts for maintenance or repairs.
- Make sure electrical systems, tools and equipment are grounded.
- Never operate electrical equipment while you are standing in water.
- Never bypass electrical protective systems or devices.
- Report any electrical hazards or damaged equipment to your supervisor.
- Temporary wiring, such as extension cords, should not be used for fixed, permanent equipment, and must not be wound around building structures or through doorways.

Together, let's do our part to keep each other safe

Anyone who works around energized equipment is at risk of arc flash hazards. It is important to identify, assess and control these hazards to maintain a safe work environment.



## What is an Arc Flash?

An electric arc is an electrical explosion that produces a bright flash gas, where temperatures can exceed 35,000 °F (19,400 °C). The energy released in the arc vaporizes the metal conducting the electricity and produces an explosive arc blast with deafening noises, supersonic concussive forces, and super-heated shrapnel.

## Causes:

- Faulty, damaged, dirty, or improperly maintained electrical equipment;
- Inadvertent movement within the restricted or arc flash boundaries, especially when conductive tools are used, also increases the likelihood of an arc flash incident.



## Prevention Methods:

- Using lockout/tagout procedures and ensuring the deenergization of electrical equipment.
- Conducting an arc flash study/risk assessment to determine the potential for arc flash hazard, determine the available incident energy of the exposed energized electrical conductor or part and determine the appropriate arc-rated PPE.
- Identifying and using approach boundaries for qualified and unqualified employees.
- Proper maintenance of electrical equipment reduces the risk of an arc flash incident.
- Using and maintaining arc-rated PPE and insulated tools.
- Appropriate training of qualified workers to ensure they are aware of the arc flash hazards.

<b>WARNING</b>	
<b>Arc Flash and Shock Risk</b>	
<b>Appropriate PPE Required</b>	
16 in	Arc Flash Boundary
1.03 cal/cm <sup>2</sup>	Incident Energy at 18 in
<b>PPE</b>	Shirt & pants or coverall, Nonmelting (ASTM F1506) or Untreated Fiber
480 VAC	Shock Risk when cover is removed
00	Glove Class
42 in	Limited Approach
12 in	Restricted Approach
<b>Location:</b>	<b>PANEL A</b>
<b>Fed From:</b>	<b>MDP</b>
Global Risk Consultants Corp. 100 Walnut Ave., Suite 501 Clark, NJ 07066	
Job#: 2615.0054	Prepared on: 07/30/19 By: Engineer
Warning: Changes in equipment settings or system configuration will invalidate the calculated values and PPE requirements	

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