

Protecting Yourself From

ARC FLASH



Steward Observatory,
July 2008



An arc flash blast can be deadly. A single phase-to-phase fault on a 480V system with 20,000 amps of fault current lasting for 10 cycles at 60 Hz will produce a blast equivalent to 1.5 lbs of TNT.

Arc Flash is a type of electrical explosion that results from a low impedance connection to ground or another voltage phase in an electrical system.

To protect yourself from Arc Flash, take the following precautions at work and at home:

- Never stand in front of any disconnect when turning the power on or off
- Never throw the switch across the box, always stay on the handle side
- If possible, try to stand facing the wall

The Proper Protective Equipment

<u>CATEGORY 0</u>	<u>CATEGORY 1</u>	<u>CATEGORY 2</u>	<u>CATEGORY 3</u>	<u>CATEGORY 4</u>
Minimum arc rating of PPE – N/A.	Minimum arc rating of PPE – 4 cal/cm ²	Minimum arc rating of PPE – 8 cal/cm ²	Minimum arc rating of PPE – 25 cal/cm ²	Minimum arc rating of PPE – 40 cal/cm ²
-Personal Protective clothing shall be non-melting or natural fiber.	-Cotton Underwear	-Cotton Underwear	-Cotton Underwear	-Cotton Underwear
	-Flame Resistant Shirt	-Cotton T-Shirt	-Cotton T-Shirt	-Cotton T-Shirt
	-Flame Resistant Pants, or Untreated Denim Cotton Blue Jeans	-Flame Resistant Shirt	-Flame Resistant Shirt	-Flame Resistant Shirt
		-Flame Resistant Pants	-Flame Resistant Pants	-Flame Resistant Pants
-Cotton Underwear	-Hard Hat	-Hard Hat	-Hard Hat	-Hard Hat
-Shirt (Long Sleeve)	-Safety Glasses or Goggles	-Safety Glasses or Goggles	-Safety Glasses or Goggles	-Flash Suit Jacket
-Pants (Long)	-Leather Gloves	-Arc Flash Face Shield or Flash Suit Hood	-Flash Suit Hood	-Flash Suit Pants
-Safety Glasses or Goggles		-Hearing Protection	-Hearing Protection	-Safety Glasses or Goggles
		-Leather Gloves	-Leather Gloves	-Flash Suit Hood
		-Leather Shoes	-Leather Shoes	-Hearing Protection
				-Leather Gloves
				-Leather Shoes