

ARC FLASH



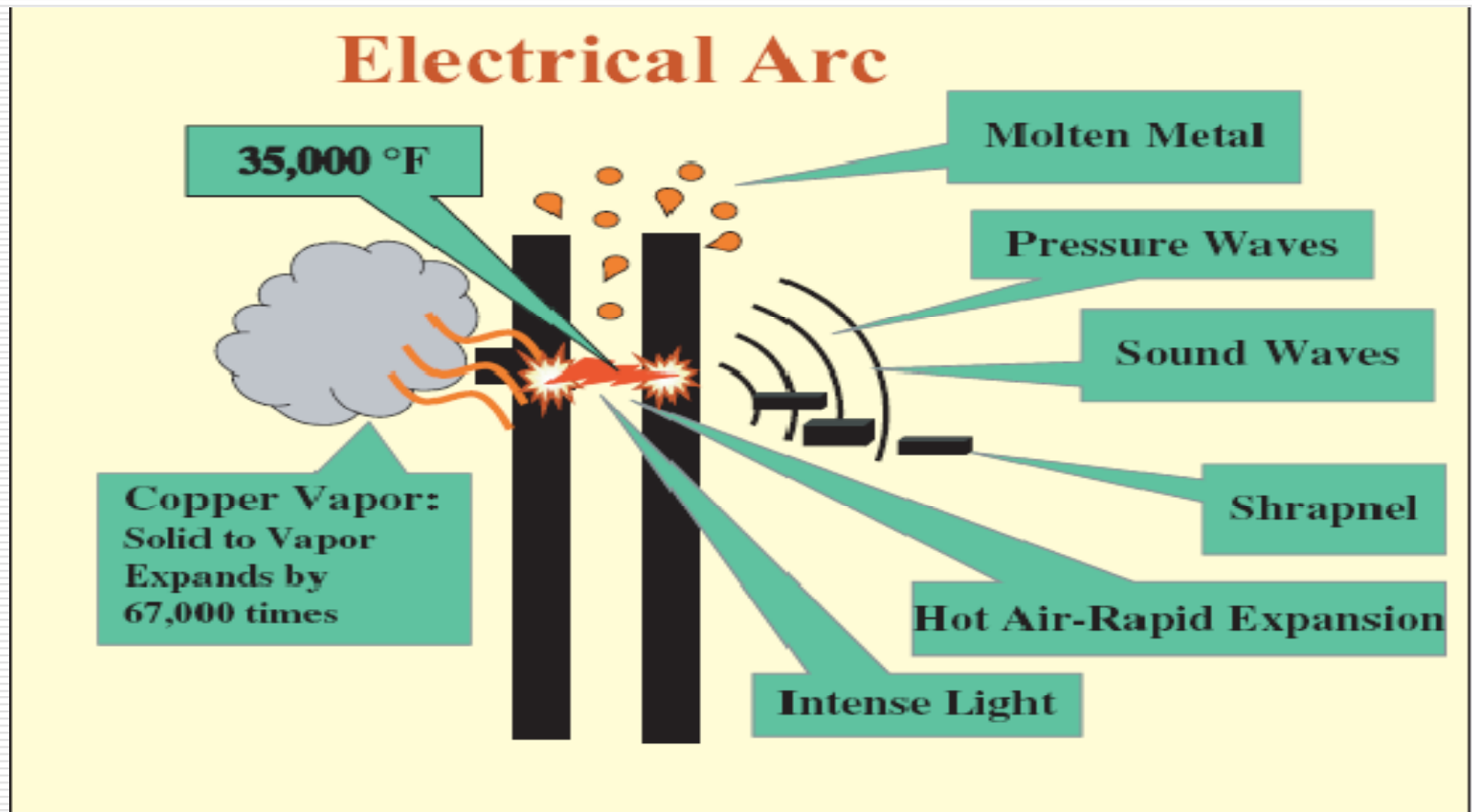
BY DAVE SAYWARD

WHAT IS AN ARC FLASH?

- ❑ Arc flash is an uncontrolled release of energy.
- ❑ Arc welders control the current thus controlling the flame



Analyzing AN ARC FLASH!



AN ARC FLASH CAN BE

- ❑ Small Arc flashes can still be dangerous
- ❑ Arc flashes can be up to 20 ft in diameter.



ARC FLASH VIDEO



ANOTHER ARC FLASH VIDEO




PREVENTING ARC FLASH



- Use only qualified trained personnel when working on electrical equipment
 - De-energize the equipment
 - Wear the proper PPE
-

PERSONNEL PROTECTION EQUIPMENT PPE

- ❑ PPE must be rated as ARC FLASH EQUIPMENT
- ❑ ARC FLASH VOLTAGE CAN BE OVER 1,000,000 AMPS
- ❑ TEMPERATURES CAN BE GREATER THAN 35,000 DEGREES F



WARNING

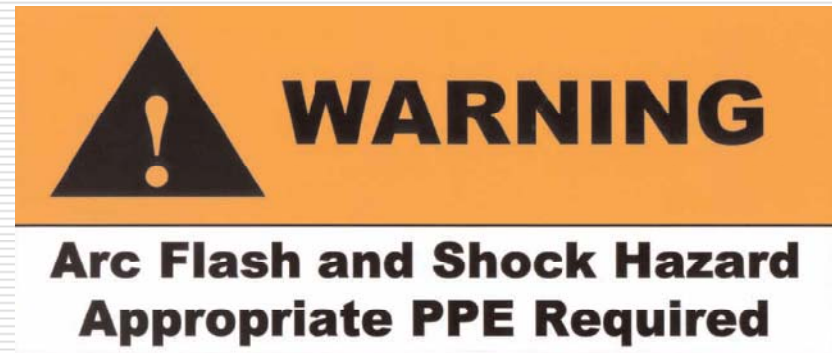
**Arc Flash and Shock Hazard
Appropriate PPE Required**

24 inch	Flash Hazard Boundary
3	cal/cm ² Flash Hazard at 18 inches
1DF	PPE Level, 1 Layer 6 oz Nomex®, Leather Gloves, Faceshield
480 VAC	Shock Hazard when Cover is removed
36 inch	Limited Approach
12 inch	Restricted Approach - 500 V Class 00 Gloves
1 inch	Prohibited Approach - 500 V Class 00 Gloves



ARC FLASH PPE

- ❑ Using the wrong equipment is dangerous.
- ❑ Dave's personal experience
 - Melted buttons on shirt
 - Blacken glasses
 - "Shrapnel" like metal pieces embedded in eyeglass lenses



QUESTIONS ?

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