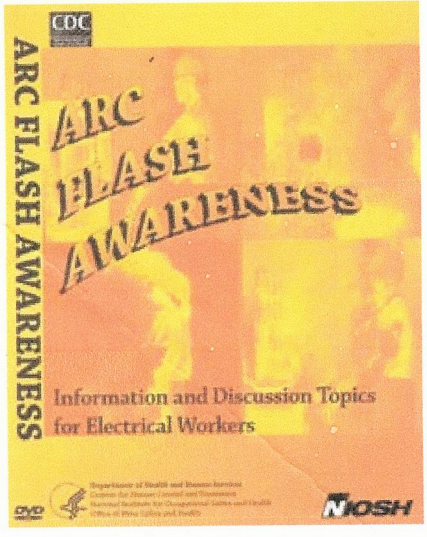
Don't get burned by arc flash!

What is hotter than the surface of the sun, explodes with the energy of dynamite, and kills one to two workers a day, each year? *An arc flash.*

An arc flash is the sudden release of electrical energy through the air when a high-voltage gap exists and there is a breakdown between conductors.

An arc flash happens without warning and too fast for you to react. The heat will reach as high as 35,000 degrees Fahrenheit—about four times as hot as the surface of the sun. High-voltage arcs can also produce considerable pressure waves by rapidly heating the air and creating a blast. This pressure burst can hit a worker with great force, and send molten metal droplets from melted copper and aluminum electrical components great distances at extremely high velocities that can result in critical burns, blindness, loss of hearing, and even death.

Surprisingly, it has just been in recent years that the term "arc flash" has garnered much attention, and that companies have started to raise awareness about the problem. However, many companies do not think arc flash is a concern to them, because they have never had an incident. Awareness about this deadly effect is critical, and will help prevent even more injuries and deaths.



What causes an arc flash?

An arc flash can be spontaneous or result from inadvertently bridging electrical contacts with a conducting object. Other causes may include dropped tools or the buildup of conductive dust or corrosion.

Conditions under which an arc flash can occur:

- Working on an energized circuit
- Electrical equipment failure

How large is the problem?

According to CapSchell, Inc., a Chicago-based research and consulting firm that specializes in workplace injury prevention, there are five to 10 arc flash explosions every day in the United States.

The final cost to employers and their insurers for a single, serious injury can approach $10 million (CapSchell).

2,000 workers are admitted annually to burn centers for extended injury treatments caused by arc flash, according to the U.S. Department of Labor.

A recent study from the National Institute for Occupational Safety and Health (NIOSH) determined that during the period from 1992 through 2001, there were 44,363 electricity-related injuries involving days away from work. The number of non-fatal electrical shock injuries was 27,262, while 17,101 injuries were caused by electric arc-flash burns.

With statistics like these, companies cannot afford to ignore electrical safety issues surrounding accidental electrocution from arc flash explosions, especially when an arc flash incident could account for more than $15 million in direct and indirect costs.

To address this issue, the Electrical Safety Foundation International (ESFI) has teamed with NIOSH and the Centers for Disease Control to distribute an arc flash awareness DVD available in English and Spanish. The DVD includes basic information about arc flash awareness and tells the stories of several electrical workers who were injured by an arc flash.

These tasks and many other electrical safety awareness programs are available through ESFI, which is committed to make the public more knowledgeable about hazards relating to electrical dangers on the job. ei