

Working Safely Around Electricity Infographic









ELECTRICAL SAFETY

What is the cost of compromised electrical safety?

Lockout/Tagout (LO/TO)

LO/TO was the eighth most cited OSHA violation in 2013, accounting for 12% of US fatalities. One amputation in the workplace caused by failure to LO/TO will cost* directly over \$60,000 and indirectly over \$2 million.

Four steps to isolating equipment during Lockout/Tagout.

1  Identify the energy source	2  Isolate the energy source	3  Lockout and/or tagout the energy source	4  Test that the isolation is effective
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According to OSHA each year proper LO/TO:

Safeguards **3 MILLION** People

Prevents **120** Deaths

Eliminates **50,000** Injuries

Arc Flash

The most common clothing item that workers fail to use as last protection against an Arc Flash burn are gloves.





Skin temperature for curable burn	176 °F
Skin temperature causing cell death	205 °F
Ignition of clothing	752° - 1,472 °F
Metal droplets from arcing	1,832 °F
Surface of sun	9,000 °F
Arc terminals	35,000 °F

One curable burn injury from Arc Flash at a workplace **DIRECTLY COSTS' \$40,000 & OVER \$150,000 INDIRECTLY**

 Flash suit protects skin and face	 Respirator protects from inhalation of toxic substances	 Flame retardant hat for head protection	 Hearing protection from Arc Flash explosion	 Gloves can prevent electrocution
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NFPA 70E


The intent of NFPA 70E, regarding Arc Flash is to provide guidelines — starting with most preferred, to the last line of defense — that will limit injury of second degree burns.

 Eliminate the Hazard	 Lockout the hazard - or isolate it	 Educate, training, and upkeep of visual communication is required	 The last line of defense is personal protection equipment (PPE)
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Cable and Wire Marking

Prevention of serious injuries or fatalities starts with identifying electrical energy sources. Cable markers and tags are identifiers critical to safety.

9% of US workplace fatalities in construction were electrocutions



One electric shock injury **DIRECTLY COSTS' OVER \$100,000 & INDIRECTLY OVER \$215,000**

Source: <https://www.graphicproducts.com>