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

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**

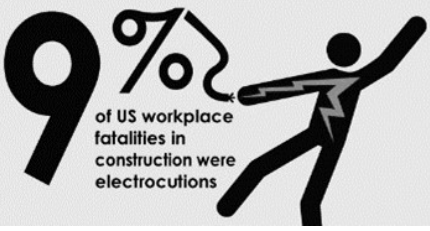
NFPA 70E

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.

1. Eliminate the Hazard
2. Lockout the hazard - or isolate it
3. Educate, training, and upkeep of visual communication is required
4. The last line of defense is personal protection equipment (PPE)

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.



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

Source: https://www.graphicproducts.com