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.

- **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)**

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