LONE STAR
CORPORATION

Electrical Safety

Electrical Construction

Electrical Maintenance

Powerline Services

Automation Services

2011–2022
WORKPLACE FATALITIES & INJURIES

Contact or exposure to electricity continues to be one of the leading causes of workplace fatalities and injuries in the US

1322 Workplace Fatalities

Workplace Electrical Fatalities as Reported to OSHA

70% of workplace electrical fatalities occurred in non-electrical occupations

30% of workplace electrical fatalities occurred in electrical occupations

6% of all fatalities were caused by contact with electricity

1.5% average decrease in workplace electrical fatalities year over year

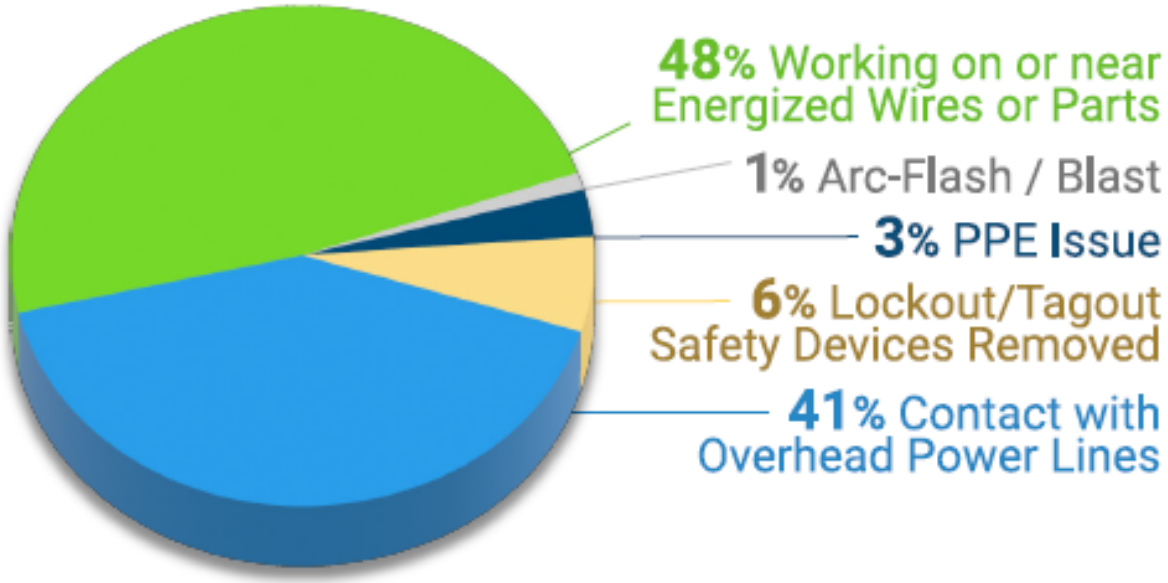
2011–2022
WORKPLACE FATALITIES & INJURIES

Occupations Involved in Electrical Fatalities as Reported to OSHA

Occupations with the Most Electrical Fatalities

Electricians: 195
Construction Laborers: 119
Laborers, Except Construction: 117
Electrical Power Installers & Repairers: 109
Tree Trimming Occupations: 94
HVAC & Refrigeration Mechanics: 42
Electricians' Apprentices: 37
Truck Drivers, Heavy: 35
Roofers: 29
Painters, Construction & Maintenance: 28

Electrical Fatality Causes as Reported to OSHA



The construction industry had the highest number of electrical fatalities.

Electrical Industry = 341

The greatest value of any business or industry is the **PEOPLE**

Overview of Standards and Regulation

General Requirements →

OSH Act of 1970

OSHA Occupational Safety and Health Administration

Specific Requirements →

nec NFPA

NFPA® National Fire Protection Association

General Duty Clause 5(a)(1)

“Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or likely to cause death or serious physical harm to employees.”

NFPA®
National Fire Protection Association

1979

- **Installation safety requirements**
- A Description of a Safety Program with defined responsibilities
- Calculations for the degree of arc flash hazards
- Personal protection equipment for workers
- Training for workers
- Tools for safe work

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Low Voltage Qualified Electrical Training

Class Overview

Our low voltage qualified course focuses on electrical safety training for employees who work on 600V and below. This NFPA 70E based course goes beyond the theoretical to give attendees a complete understanding of the rules and regulations relating to electrical and arc flash safety and how to apply them in real-world situations.

Based on the 2024 NFPA 70E, this course helps employees stay compliant with OSHA regulations, and provides updates from the 2021 NFPA 70E to the 2024 version.

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High Voltage Qualified Electrical Training

Based on NFPA 70E & OSHA

This course is designed for those who work with or manage employees in a high voltage environment (above 600 V to 26,000 V). Participants will learn the requirements to be HV qualified in accordance with OSHA 1910.269, NESC and NFPA 70E regulations and guidelines.

In addition to High Voltage safety practices, attendees will discuss the various tasks performed in an HV environment including bucket truck operations and bucket truck rescue.

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Qualified Electrical Training

Regulations & Standards • Applicable: NFPA 70E/OSHA
• How Standards Are Used
• Key Definitions/Issues

ELECTRICAL HAZARDS & PROTECTION STRATEGIES

Shock Hazards & Protection Strategies • Types
• Understanding AC and DC Shock
• Variables Impacting Hazard
• Protection Boundaries
• Voltage Rated Gloves and Other Shock PPE
• Rated Insulated Tools and Other Equipment

Arc Flash Hazards & Protection Strategies • Causes/Types
• Arc Blast
• Common Places
• Arc Flash Boundaries
• Practical Application

Arc Rated Personal Protective Equipment • Overview
• Protecting Head, Hands and Feet
• PPE Programs: Categories, Levels
• Environmental Considerations
• PPE Guidelines and Maintenance

Risk Reduction Strategies • Safety by Design
• Supplemental Equipment
• Engineering Solutions

Job Planning • Elements of Safety Planning
• Job Briefing
• Energized Electrical Work Permit

Risk Assessment • Risk Factor: Constant and Variable
• Methods for Arc Flash Hazard
• Labeling
• Steps to Determine Protective Measures

Safety Related Work Practices • “Electrically Safe Work Conditions
• Identifying and Securing Boundaries
• Tools and Equipment
• Best Practices for Lock Out/Tag Out, Verifying De-energizing and LV Grounding
• Situational Conditions (Overhead, Underground, etc.)
• Special Equipment
• Training
• Administrative Guidelines
• Recognizing Hazards and Poor Work Practices

Hands-On/Skills Performance Evaluation


CAUTION DO NOT ENTER


SAFETY | DOWNED POWER LINE
PSE
PUGET SOUND ENERGY