ELECTRIFICATION SERVICE — TRAINING

Critical procedures and safety
Lockout/tagout (LOTO)

This course is designed to equip participants with the knowledge and skills necessary to safely address hazards posed by various energy sources, such as electrical, mechanical, chemical, thermal and more.

Course length: 1 day

Course details
This program emphasizes the importance of protecting employees, contractors and energized assets from risks related to unexpected energization, machinery startup or the release of stored energy during servicing or maintenance activities.

The training provides a comprehensive overview of OSHA CFR 1910.147, the standard that governs the control of hazardous energy (lockout/tagout), as well as NFPA 70E, which outlines safe work practices to protect personnel from electrical hazards. Participants will learn to apply the hierarchy of controls — a critical framework for minimizing workplace hazards through elimination, substitution, engineering controls, administrative controls and the proper use of personal protective equipment (PPE).

Special attention is given to PPE requirements, helping workers understand how to select and use protective gear appropriately to reduce exposure to potential injuries. By the end of the course, participants will have the tools and knowledge to implement safe practices, mitigate risks and comply with key safety regulations.

Key takeaways from this training

1. The relationship between OSHA CFR 1910.147 and NFPA 70E
2. Proper use of PPE and PPE requirements
3. Elements of a LOTO program
4. Energy-control procedures
5. Common LOTO devices used with various energy sources

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Training outline

What is LOTO and who makes the rules?
- Lockout/tagout defined
- What LOTO devices do
- Hazardous energy
- Hazard vs. risk
- Job hazard analysis
- Hierarchy of controls
- Your PPE requirements
- OSHA CFR 1910.147
- NFPA 70E

Common LOTO devices
- Circuit breaker locks
- Switch locks
- Plugs and cords
- Wheel valve covers
- Ball valve covers
- Hasps
- Tags and tagout

Terminology and equipment
- Lockout device
- Energy isolating device
- Authorized employee
- Affected employee

Elements of a LOTO program
- Four primary elements
- General LOTO procedures
- LOTO exceptions
- Transfer of LOTO responsibility
- Emergency release of LOTO

Written energy-control procedures
- Equipment specific
- When written procedures are required
- Alternative protective measures

Common electrical LOTO
- Common electrical devices
- Electrical PPE
- Common electrical LOTO examples

Common pneumatic LOTO
- Common sources of pneumatic energy
- Common pneumatic LOTO examples

Common water and chemical LOTO
- Common sources of water and chemical energy
- Common water and chemical LOTO examples

Common gravitational LOTO
- Common sources of gravitational energy
- Common gravitational LOTO examples

Common hydraulic LOTO
- Common sources of hydraulic energy
- Common hydraulic LOTO examples

Periodic inspections
- Annual verification of procedures
- Elements of verification process

LOTO injuries
- Three examples from OSHA file

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