 YOUR SAFETY Department SAFETY Solutions		HSE MANAGEMENT SYSTEM HSE Training OSHA 29 CFR 1910.331-335 2018 NFPA 70E 110.2A 2018 NFPA 70E 110.2B
		2018 NFPA 70E Training
91 Eagle Creek Ranch Blvd Floresville, Texas 78114	HEALTH, SAFETY AND ENVIRONMENT	Training Director: Chris Thuneman

Program of Instruction

Course Syllabus

Course Title: 2018 NFPA 70E Training

Course Duration: 8 hours

Program: Electrical Safety Program

Level of Training: Low Voltage Qualified (600V and below).

Course Description: This course is designed to train individuals on safety related work practices, safety related maintenance requirements and safety requirements for special equipment. The course covers: guidance for making hazard identification and risk assessments, selecting appropriate PPE, and establishing electrically safe work conditions and employee training. The course emphasizes the rules and regulations relating to electrical and arc flash safety and how to apply them in real-world situations.


Course Requirements and/or Recommendations:

Summary of Directions

Pre-Course Work: None

Course Work: This course meets or exceeds the requirements of 2018 NFPA 70E 110.2A for qualified employee training and 110.2B for Lockout/Tagout Procedure Training. It is intended for Safety Directors, Electrical Contractors, Maintenance Electricians, and Owners, Managers and Supervisors who in their normal course of duty would be exposed to the hazards of electricity.

Post-Course Work: None

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Course Content:

Module: 1

Title: Introduction to Electrical Safety

Terminal Learning Objective:

At the conclusion of this module, the student will *understand* the risks associated with working with electricity.

Module: 2

Title: Laws, Regulations, & Standards

Terminal Learning Objective:

At the conclusion of this module, the student will be able to *apply* the laws, regulations and standards from NFPA 70E and OSHA, understand how the standards are used, and *identify* key definitions and issues with the standards.

Module: 3

Title: Shock Hazards & Protection Strategies

Terminal Learning Objective:

At the conclusion of this module, the student will *understand* the types of shocks, how shocks occur, variables that impact shock hazards, *apply* protection boundaries, *select* voltage related gloves and other shock PPE and *select* rated insulated tools and other equipment.

Module: 4


Title: Arc Flash Hazards and Protection Strategies

Terminal Learning Objective:

At the conclusion of this module, the student will *understand* the types of arc flashes, how arc flash and arc blasts occur, common place where arc flashes occur, apply arc flash protection boundaries, and mitigate hazards through engineering design and work methods.

Module: 5

Title: Arc Rated Personal Protective Equipment

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Terminal Learning Objective:

At the conclusion of this module, the student will *understand* the types personal protective equipment for the head, hands and feet, understand the varying categories, levels and systems of a PPE Program, understand the environmental considerations and *select* appropriate PPE for the electrical hazards encountered. The module also covers PPE Guidelines and Maintenance.

Module: 6

Title: Job Planning

Terminal Learning Objective:

At the conclusion of this module, the student will *understand* the elements of Safety Planning, *conduct* a Job Briefing and/or Job Safety Analysis and be able to *complete* an Energized Electrical Work Permit.

Module: 7

Title: Risk Assessment

Terminal Learning Objective:


At the conclusion of this module, the student will *understand* the components of a risk assessment. *Use* the Table or Incident Energy Calculations method, *understand* labeling requirements, and *conduct* a task assessment exercise.

Module: 8

Title: Safety Related Work Practices

Terminal Learning Objective:

At the conclusion of this module, the student will be able to *define* Electrical Safe Work Conditions, *identify and secure* boundaries, *conduct* lockout/tagout operations, *identify* situational conditions (overhead, underground, etc) and *recognize* hazards and poor work practices.

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Evaluation Strategy:

A performance evaluation (formal evaluation) will be conducted of each student to ensure that they are able to understand, operate, and use a voltage detector.

A written test (formal evaluation) will be conducted at the completion of the course with a passing grade of 70% required.


In addition, several simulated evolutions and scenarios are used throughout the course (informal evaluation).

References:

National Fire Protection Association Standards *2018 NFPA 70E Standard for Electrical Safety in the Workplace®*, 2018.

National Fire Protection Association Standards *Handbook for Electrical Safety in the Workplace®*, 2018.

U.S. Department of Labor, *Code of Federal Regulations: Labor 29CFR1910.147; 29CFR1910.303; 29CFR1910.305 and 29CFR1910.331-335*. Washington, D.C., Office of the Federal Register, National Archives and Records Administration, 1996.

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Course Schedule

Event

Sign In Roster, Orientation, and Introductions

Module 1: Introduction to Electrical Safety

Module 2: Laws & Regulations, & Standards

Module 3: Shock Hazards & Protection Strategies

Module 4: Arc Flash Hazards and Protection Strategies

Module 5: Arc Rated Personal Protective Equipment

Module 6: Job Planning

Module 7: Risk Assessment

Module 8: Safety Related Work Practices

Practical – Voltage Detector Operation and Use

Practical – Conduct a Task Risk Assessment

Practical – Conduct a JSA

Practical – Complete an Energized Electrical Work Permit

Practical – Don and Doff of Required PPE

Final Evaluation and Testing

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FINAL DELIVERABLES

Each student will receive a laminated card identifying the students name, course name, course date, expiration date (3 years) and trainer name and signature. (may be delivered immediately to student or to company to hand out to student – per company preference.)

Company will receive the sign-in roster with employee names, employee ID, Course Date and Time, Trainers Name and Signature and Course Syllabus to be kept on file for the tenure of each student.

Retraining is required every three (3) years, or 1) when supervision or annual inspection indicates employee is not following required safety work practices, 2) new technology or new equipment is introduced to the work environment, or 3) when processes are new to an employee.