# EDUCATION & TRAINING CATALOG



Northeast Public Power Association

est. 1965

2023

# FROM THE EXECUTIVE DIRECTOR

Greetings from Littleton, Massachusetts, headquarters of the Northeast Public Power Association.

In 1965 the Northeast Public Power Association (NEPPA) was created with the common idea that 'together - we are stronger'. The Greek philosopher Aristotle is credited with the concept that the 'whole is greater than the sum of its parts'. Fast forward 20,000 years and this concept still rings true when it comes to safety and safety training. The NEPPA membership - when working together to create a positive safety culture - is indeed greater than the sum of its individual members.

It is our pleasure to provide you with NEPPA's 2023 Education & Training Catalog. We hope you will find it helpful in planning for all your training needs in 2023. The NEPPA staff is working to finalize and add more opportunities to the training schedule in 2023, but currently (August 2022), this is the projected offerings on known training classes and courses.

As the new Executive Director of the Northeast Public Power Association, I'm committed to ensuring that Safety and Training are a high priority for the organization. We are looking for individuals to not only help us bolster what we have, but also grow the training opportunities and quality of those offerings over the next few years.

The addition of the underground training facilities is a great example of this. NEPPA's Mike Pazzanese is currently heading up this endeavor, and we anticipate the completion of the URD training yard by years end. We have been actively seeking donations of materials from the NEPPA membership, and your donations and assistance to make this the best training program in the Northeast is appreciated.

As we have seen over the past few years, the Apprentice program at NEPPA continues to grow. Although exciting – it presents scheduling and instructor limitations that we are trying to overcome. We need to find that next wave of dedicated safety and training individuals to join NEPPA's instructor ranks to not just meet the training programs at the levels they are today – but possibly at higher levels of students and training opportunities for seasoned Lineworkers in the future.

Similar to what Uncle Sam once said, "NEPPA Needs you!" Get involved in the Apprentice Lineworker Review and Advisory Subcommittee. Volunteer to be a mentor for the incoming class of Apprentice and help them grow over the next four years. Become a part time instructor and see if this is your dream job where you can pass down your skills to the next generation.

The future of the NEPPA organization is bright, and I ask that your utility and utility personnel be part of it. If you have questions, concerns, or ideas that would make your utility experience with the NEPPA training center better - I would like to know. Shoot me an email, text or simply give me a call. My contact information is below.

Michael Hyland, PE Executive Director MHyland@NEPPA.org



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# ABOUT US

The Northeast Public Power Association (NEPPA) is a private, non-profit trade association that is incorporated as a 501(c)6. NEPPA was founded in 1965 to represent and serve consumer-owned utilities of New England. As a regional organization, it uses the combined strength of its diverse members to provide low-cost services and to advocate public policies and federal legislation, which are beneficial to its members' interests.

#### WHAT IS PUBLIC POWER?

"Public power" means a community owns and operates its own electric utility, distributing energy to its residents. For over 100 years, consumer-owned, not for profit electric utilities have brought low-cost reliable electric service to customers throughout the United States. Nationally, 1 out of 4 customers is served by a public power company that is owned and operated by local or state governments or rural cooperatives.

#### **OUR MISSION**

To develop and unite public utility professionals by advancing their knowledge, capabilities and voice in the public power industry and workplace.

#### **OUR VISION**

To be the best and most advanced utility resource and training organization in the Northeast.

#### **CORE VALUES**

NEPPA embraces five core values:

- A focus on public power and community
- A passion for safety
- Training excellence
- Collaboration and innovation
- Industry leadership

#### **Cancellation Policy**

Cancellations made less than 24 hours before the class will be billed. Multiple classes can be held on the same day but are billed separately.

#### Policy on Class Visitors and/or Observers

NEPPA strives to provide the highest level of training and education. An important part of the educational experience is to have the knowledge of other participants and their surroundings.

We encourage the participation or observation of utility management, general foremen or elected leaders at courses. This better facilitates the communication process between field workers and decision makers on safety issues.

If a utility is hosting a training and they wish to have a non-affiliated person attend or participate, they must seek approval from NEPPA prior to the training.

#### **Attendance Policy**

NEPPA reserves the right to remove or ask an attendee to leave its programs. Reasons for removal include:

- Disruptive or inappropriate behavior for the learning environment.
- Lack of appropriate dress or equipment for classes requiring protective gear or equipment.
- Refusal or inability to perform for classes requiring physical performance.
- Non-adherence to safety rules or standards in classes where standards apply

The General Foreman or General Manager will be alerted to the situation.

Removal for any of the above reasons does not entitle participating parties to a refund.

Note: For classes requiring physical performance, students who have obtained confirmation from their utility acknowledging their inability to perform due to injury will be allowed to observe. This will be documented on the class roster.



### **STAFF**

#### NEPPA fulfills its mission, vision, and values through its full- and part-time staff:



Mike Hyland, P.E. Executive Director



John McDonagh, P.E. Director of Safety and Training



Elizabeth
Dailey
Director of
Administration &
Finance



Wendy Esche
Director of
Marketing,
Communications
& Events



Jackie Campbell Member Services Coordinator



Colleen
Del Signore
Education & Training
Coordinator



Anthony
Calascibetta
Trainer
(CT, MA, NH, RI, VT)
Authorized OSHA
Outreach Trainer
(General / Construction)



Linda Calderiso

Trainer
(MA, RI)

Certified Medic First
Aid Trainer First Aid,
CPR, AED



Dan Flynn
Trainer
(CT, MA, ME, NH,
NY, RI, VT)
Certified Medic
First Aid Trainer
First Aid, CPR, AED



Lou Gabriele
Trainer
(NH, NY, VT)
Authorized OSHA
Outreach Trainer
(Construction)
Certified Medic
First Aid Trainer
First Aid, CPR, AED



Bill Hesson Trainer (NY)



Mike Pazzanese, CUSP Trainer (MA, ME, NH, RI, CT) Authorized OSHA Outreach Trainer -General



Tim Richardson, P.E. Trainer (CT, MA, RI)



Steve Socoby
Trainer
(CT, MA, ME, NH, RI, VT)
Authorized OSHA
Outreach Trainer Construction
Certified Medic First Aid
Trainer - First Aid, CPR,
AED

### SUGGESTED @ YOUR-SITE TRAINING SCHEDULE

JAN APP Safety Manual Review

FEB OSHA Fundamentals 1 (HAZCOM,

Blood Borne Pathogens, Silica Protection, and Spill Prevention

Control & Countermeasures)

Or

HAZCOM, Blood Borne Pathogens &

Silica Protection (if applicable)

MAR Rigging, Ropes & Safety

APR Underground Distribution Review

MAY OSHA Fundamentals 2 (Emergency

Action & Evacuation Plans, Fire

Extinguishers, Enclosed & Confined

Spaces, and Hearing Conservation

where applicable)

Or

**Enclosed & Confined Space Rescue** 

JUNE OSHA Fundamentals 3 (Lockout/Tagout,

Switching & Tagging, and Bucket & Pole

Top Rescue)

Or

**Bucket & Pole Top Rescue** 

JULY MAKE-UPS

AUG MAKE-UPS

SEP OSHA Fundamentals 4 (Forklift Training &

Practical Demonstration) refresher every 3 years

Or

Personal Protective Grounding

**OCT** Work Zone Safety

NOV Trouble Investigation

**DEC** Chainsaw and Chipper Safety

### @ YOUR-SITE VIRTUAL TRAINING SCHEDULE

90-minute training (8:30am - 10am)

Dates are subject to change

- Substation Components & Safety Tue., Jan. 24
- Rigging, Ropes & Safety Wed., Jan. 25
- Underground Distribution Review Tue., Apr. 18
- Job Briefings Wed., Apr. 18
- APPA Safety Manual: Part 1 Tue., Sep. 19
- APPA Safety Manual: Part 2 Wed. Sep. 20
- System Protection Tue., Dec. 19
- Personal Protective Equipment Wed. Dec. 20



### @ YOUR-SITE TECHNICAL PROGRAMS SCHEDULE

Dates are subject to change

- APPRENTICE LINEWORKER PROGRAM
  - Year 1 Group A (4 Sessions)

Jan. 31 - Feb. 3; March 21 - 24; Aug. 29 - Sep. 1; Oct. 17 - 20 (8am - 2pm)

Year 1 Group B (4 Sessions)

Jan. 31 - Feb 3; March 28 - 31; Aug. 29 - Sep. 1; Oct. 24 - 27 (8am - 2pm)

Year 2 Group A (4 Sessions)

Feb. 7 - 10; April 4 - 7; Sep. 12 - 15; Oct. 31 - Nov. 3 (8am - 2pm)

Year 2 Group B (4 Sessions)

Feb. 7 - 10; April 18 - 21; Sep. 12 - 15; Nov. 6 - 9 (8am - 2pm)

Year 3 Group A (4 Sessions)

Feb. 28 - March 3; April 25 - 28; Sep. 26 - 29; Nov. 14 - 17 (8am - 2pm)

Year 3 Group B (4 Sessions)

Feb. 28 - March 3; May 2 - 5; Sep. 26 - 29; Dec. 5 - 8 (8am - 2pm)

Year 4 Group A (4 Sessions)

March 7 - 10; May 16 - 19; Oct. 3 - 6; Dec. 12 - 15 (8am - 2pm)

Year 4 Group B (4 Sessions)

March 7 - 10; May 16 - 19; Oct. 3 - 6; Dec. 12 - 15 (8am - 2pm)

Skills Assessment Rodeo

June 7 - 8 (8am - 2pm)

Class of 2023 Graduation

December 15 (8am - 1pm)

• **Make-ups** there will be a fee for this

June 13 – 14 (hands-on)

June 15 (exams) Nov. 30 (exams)

- Intro to Electrical Hazards and Safety
  - Day 1 (5/23): HAZCOM/Right to Know, Emergency Action & Evacuation Plans, Fire Extinguishers,
     Tools & Equipment, PPE and Fall Protection
  - Day 2 (5/24): Electrical Hazard Awareness, Work Zone Safety, Bucket & Pole Top Rescue, and Enclosed & Confined Space Rescue
  - Day 3 (5/25): Medic First Aid, CPR, AED Traditional
- Basic Electricity and Mathematics for Utility Operations (Prerequisite for Meter I & Sub I)
  - March 14 (8am 3pm)

October 17 (8am - 3pm)

Nov. 28 - 29 (hands-on)

- Metering I
  - April 5 6, 8am 2pm
- Metering II
  - November 7 9, 8am 2pm
- Substation I (4 sessions)
  - March 14 17 (8am 2pm)
  - May 2 5 (8am 2pm)

- March 28 31 (8am 2pm)
- April 18 21 (8am 2pm

- Substation II (4 sessions)
  - September 5 8 (8am 2pm)
  - September 19 22 (8am 2pm)
- October 10 13 (8am 2pm)
- October 24 27 (8am 2pm)

### **BUSINESS OPERATIONS**

#### PUBLIC UTILITY ACCOUNTING

Expected to be scheduled in 2023

Course Length: 2-Day

Who Should Attend:

This course is designed for personnel who are new to utility accounting practices or unfamiliar with the FERC accounting structure. Experienced accountants and accounting managers who want to enhance their knowledge of utility accounting practices can also benefit from this course.

#### Prerequisites:

There are no prerequisites for this basic level course.

Program Overview:

This course highlights the development of a utility accounting system that is compatible with Federal Energy Regulatory Commission (FERC) guidelines. It examines accounting theory, the role of accounting in public utilities, FERC accounting procedures, the uniform systems of accounts, and utility accounting subsystems.

#### ADVANCED PUBLIC UTILITY ACCOUNTING

Expected to be scheduled in 2023

- Course Length: 2-Day
- Who Should Attend:

This course is designed for utility accounting and finance personnel who have taken APPA's Public Utility Accounting course and for those with a basic knowledge of utility accounting theory and practice.

Prerequisites:

There are no formal prerequisites for this program, however it is recommended as a follow up to APPA's Public Utility Accounting course.

Program Overview:

Most of the crucial decisions that electric utilities make require financial information. Utility accounting staff must understand how accounting principles and practices impact financial reporting to internal and external stakeholders. This course examines complicated aspects of accounting theory and practice to inform planning and decision-making by management.

#### COST OF SERVICE: IMPLEMENTATION & BEST PRACTICES

Expected to be scheduled in 2023

- Course Length: 2-Day
- Who Should Attend:

This course is designed for Rate analysts and utility staff who are responsible for implementing cost of service studies or want to learn how the process is completed and applied.

Prerequisites:

There are no formal prerequisites for this program, however it is recommended as a follow-up to APPA's Basic Cost of Service and Key Financial Concepts course.

#### Program Overview:

Understand how to apply cost of service and rate design principles and processes to electric, water, sewer, gas, and other municipal services. Develop a fully functional and unbundled cost of service study. Do a cost analysis deep dive and learn from real-world examples and best practices.

### **BUSINESS OPERATIONS**

#### SUCCESSFUL CUSTOMER SERVICE OPERATIONS & MODERN MEDIA MANAGEMENT Expected to be scheduled in 2023

Course Length: 1-Day

#### Who Should Attend:

All public power utility employees and governing officials who play a role in shaping their organization's customer service and culture priorities, as well as utility managers, policymakers, and staff who interact with customers and the media.

#### • Prerequisites:

There are no prerequisites for this basic level course.

#### Program Overview:

This combined program defines good customer service, how to identify and meet the needs of different types of customers, and how to create a culture of commitment to excellence in customer service across all areas of utility management, operations, and customer interactions—focusing on building customer service as a strategy, not simply an administrative function. The program also walks you through the fundamentals of what to do when, not if, your organization gets pulled into the media spotlight, and how to be prepared to talk about a crisis via conventional and social media. Plan out how to craft messages and create opportunities to tell your story fast, tell it first, and tell it to the people who matter most.

#### PREPARING FOR ENERGY STORAGE: TRENDS AND PRACTICAL APPLICATIONS

Expected to be scheduled in 2023

Course Length: 1-Day

#### Who Should Attend:

Utility staff and policymakers looking for an in-depth look at energy storage.

#### • Prerequisites:

There are no prerequisites for this basic level course.

#### Program Overview:

Energy storage technologies are poised to have a major effect on electric utilities. Take a deeper dive into the costs, benefits, and limitations of each type of energy storage technology. Discuss the challenges and short- and long-duration applications of these technologies and how your utility might weigh these insights when deciding how to invest in storage. Learn how regulatory trends might affect utility plans and storage goals. Review best practices and platforms for implementing battery storage in utility portfolio planning, in supporting intermittent renewable resources, and in providing other grid services.

### INTRODUCTORY LEVEL TRAINING

#### BASIC ELECTRICITY & MATHEMATICS FOR UTILITY OPERATIONS

Course Length: 1-Day

#### Who Should Attend:

This course is designed for all field operations personnel including:

- Meter Technicians
- Lineworkers
- Substation Technicians
- · Customer Service or Office Personnel looking to understand the product they sell every day
- Supervisors or Managers transitioning from other departments or disciplines

#### Prerequisites:

There are no prerequisites for this introductory-level course.

#### Program Overview:

Basic Electricity & Mathematics for Utility Operations is designed to be an introduction to the electrical concepts and mathematical principles needed to understand electricity and electrical equipment. This course is a foundational level course that is a basis for additional course work in specific disciplines such as substation, overhead lines, and metering.

#### INTRODUCTION TO ELECTRICAL HAZARDS & SAFETY TRAINING

Course Length: 1-, 2-, or 3-Day

#### Who Should Attend:

This course is designed for:

- · Any New Hire in Electric or Telecommunications Industries
- New Lineworkers
- · New or Existing Telecommunications Technicians
- · New Substation or Meter Technicians
- New Operations Personnel
- · New Office Personnel

#### Prerequisites:

There are no prerequisites for this introductory-level course.

#### Program Overview:

Participants may elect to attend one, two, or all three days of the program.

Topics covered include (1) Hazardous Communications; (2) Emergency Action & Evacuation Plans, Incl. Fire Extinguishers; (3) Tools & Equipment; (4) Personal Protective Equipment; (5) Fall protection; (6) Electrical Hazard Awareness; (7) Work Zone Protection; (8) Pole Top & Bucket Rescue; (9) Enclosed & Confined Space Rescue; (10) First Aid/CPR/AED (Blended Learning Model)

# INTRODUCTORY LEVEL TRAINING

#### INTRODUCTION TO ELECTRIC DISTRIBUTION SYSTEMS

Expected to be scheduled in 2023

Course Length: 1.5- or 2-Day

Who Should Attend:

This course is designed for:

- Any New Hire in the electric utility Industry
- New Lineworkers
- · New Operations Personnel
- New Office Personnel
- · Customer Service or Business Operations employees
- New Commissioners or Board Members

#### Prerequisites:

There are no prerequisites for this introductory-level course.

#### Program Overview:

Introduction to the Electric Distribution System is designed for new and non-technical employees or commissioners. The program explores a high-level overview of electric generation, transmission, and distribution. The class covers the basics of infrastructure, regulation, public power governance, and power supply.

### **UTILITY OPERATIONS & SAFETY**

#### HOISTING LICENSE 1B-1D; 2A-2C

- NEPPA offers hoisting Continuing Education and Test Prep classes for:
  - · Hoisting 1B-1D: hoisting machines, i.e., cranes and bucket trucks
  - Hoisting 2A-2C: digging machines, i.e., excavators and backhoes

Per mandated requirement, all classes are scheduled for 4 hours. These classes are for both Continuing Education (to renew the license) and Test Prep (to prepare for the test to receive a brand-new license).

### **UTILITY OPERATIONS & SAFETY**

#### METERING I PROGRAM

Course Length: 2-DayWho Should Attend:

This course is designed for:

- · New or transitioning Meter Technicians
- Lineworkers
- Supervisors or Managers transitioning from other departments
- Prerequisites:

Basic Electricity & Mathematics for Utility Operations

#### Program Overview:

In direct response to members' feedback, NEPPA announced a completely revitalized Metering Program in 2020. As the Program continues to evolve, we encourage members and students to provide their honest feedback on the program.

Metering I is designed to be an introduction to the fundamentals of meter equipment and safety. The Program will introduce how meters are used as an integral part of the distribution system and why their accurate and efficient readings are critical to a utility's success.

#### METERING II PROGRAM

Course Length: 3-DayWho Should Attend:

This course is designed for:

- · Intermediate or Transitioning Meter Technicians
- Lineworkers
- · Supervisors or Managers transitioning from other departments

#### • Prerequisites:

Students are expected to have completed NEPPA's Basic Electricity and Mathematics for Utility Operations and Metering I programs, and/or demonstrate a solid understanding of basic electricity concepts, theory, and mathematics through prequalification testing.

#### Program Overview:

NEPPA's Metering II Program is designed to build upon the introductory concepts of Metering I. Metering II explores the advanced application of concepts, how to apply theory in practice and understand system design elements and equipment.

Upon successful completion of the Program, including a final exam, students are awarded a Certificate of Completion.

Expected to be scheduled in Fall 2023

# **UTILITY OPERATIONS & SAFETY**

- OSHA 10-HOUR
  - Course Length: 2-Day
  - Who Should Attend:

The OSHA 10-Hour course is recommended for:

- New Hires
- Lineworkers, Operations or Field Personnel
- Office Managers & Staff
- Customer Service
- Engineers
- · Anyone employee with little to no introduction to OSHA and its requirements
- Prerequisites:

There are no prerequisites for the OSHA 10-Hour course.

Program Overview:

NEPPA is pleased to offer this program to its members. Each participant will be given an OSHA 10-Hour Card after successful completion.

Topics May Include:

Introduction to OSHAHazard Communication

Personal Protective Equipment
 Exit Routes, EAP, Fire Prevention
 Plans & Fire Protection

Walking Working Surfaces

· Electrical Safety

Fall ProtectionErgonomics

Bloodborne Pathogens
Machine Guarding
Hazardous Materials

Managing Safety & Health

#### UNDERGROUND DISTRIBUTION MAINTENANCE & REPAIR

Course Length: 3-Day

Who Should Attend:

This course is designed for:

- · Lineworkers or operations employees
- Underground Distribution technicians or contractors
- Employees or Supervisors transitioning from other departments
- · Engineers
- Construction Supervisors
- Project Managers
- Prerequisites:

Basic Electricity & Mathematics for Utility Operations

Program Overview:

In direct response to member demand, NEPPA is pleased to be offering a brand-new, hands-on Underground

Distribution Maintenance & Repair program.

In addition to in-class lectures on cable type, design, splicing, terminations, inspections, equipment, fault locating, safety and repair, students will also have hands-on practice with splicing and terminating. Upon successful demonstration of hands-on exercises and a written exam, students will receive a Certificate of Completion.

### **UTILITY OPERATIONS & SAFETY**

#### SUBSTATION I PROGRAM

Course Length: 14-Day; 3.5-days/week for 4 weeks

#### Who Should Attend:

This course is designed for:

- · Lineworkers or operations employees
- Substation Technicians
- Employees or Supervisors transitioning from other departments
- Engineers
- Construction Supervisors
- Project Managers

#### Prerequisites:

Basic Electricity & Mathematics for Utility Operations (held on Day 1 of the Program)

#### Program Overview:

NEPPA's is pleased to continue offering the revitalized Substation I Program which is held 3.5-days/week for 4

weeks/year. Beginning in 2021, each Friday of the session will be conducted virtually for review and testing.

Substation I is designed as an introduction to substations including safety, design, operation, equipment, and theory. Upon successful completion of the Program, students are awarded a Certificate of Completion.

In addition to in-class lecture, the Substation I Program incorporates hands-on application of concepts and testing, field visits and tours of different installations, and weekly testing including a final exam to demonstrate knowledge and comprehension of the course content.

#### SUBSTATION II PROGRAM

Course Length: 14-Day; 3.5-days/week for 4 weeks

#### Who Should Attend:

This course is designed for:

- · Lineworkers or operations employees
- Substation Technicians
- Employees or Supervisors transitioning from other departments
- Engineers
- · Construction Supervisors
- Project Managers

#### Prerequisites:

Students are expected to have completed NEPPA's Basic Electricity and Mathematics for Utility Operations and Substation I programs, and/or demonstrate a solid understanding of basic electricity concepts, theory, and mathematics through prequalification testing.

#### Program Overview:

Building on the success of Substation I, NEPPA is pleased to offer a completely redesigned Substation II Program which is held 3.5-days/week for 4 weeks/year. Beginning in 2021, each Friday of the session will be a half-day con- ducted virtually for review and testing.

Substation II is designed to expand on the safety and equipment covered in Substation I and move into the protection and controls, understanding operations, schematics, and diagrams, testing and interpretation of test results. Upon successful completion of the Program, students are awarded a Certificate of Completion.

In addition to in-class lecture, the Substation II Program incorporates hands-on application of concepts and testing,

building, and manipulating a relay panel, and weekly testing including a final exam to demonstrate knowledge and comprehension of the course content.

### **LEADERSHIP & MANAGEMENT**

#### CREW LEADERSHIP PROGRAM

Held every other year, next offering in 2024

Course Length: 2-DayWho Should Attend:

This course is designed for:

- Current or aspiring Crew Leaders
- · Lineworkers or operations employees
- Employees or Supervisors transitioning from other departments
- Construction Supervisors
- Project Managers

#### Prerequisites:

There are no prerequisites for this program, however it is recommended that participants have at least 5-8 years in the industry and either have or are interested in being promoted into a crew leadership position.

#### Program Overview:

Offered once every other year, NEPPA's Crew Leadership Program is designed to build upon their existing leadership skills to work more effectively and efficiently in the field, while meeting standards and regulatory requirements.

In addition to in-class lecture, the Crew Leadership Program includes a final exam to demonstrate knowledge and

comprehension of the course content.

Upon successful completion of the Program, students are awarded a Certificate of Completion.

#### CUSTOMER SERVICE LEADERSHIP PROGRAM

Held every other year, next offering in 2024

Course Length: 1-DayWho Should Attend:

This interactive Program is designed for anyone who interacts with external and internal customers, especially:

- Receptionists
- Customer Service Representatives
- · Technical Support Staff
- Sales & Marketing Staff
- Supervisors & Managers

#### • Prerequisites:

There are no prerequisites for this program, however participants should have 3-5 years' experience and have, or are interested in being promoted into a customer-facing leadership position.

#### Program Overview:

NEPPA is pleased to partner with Pryor Learning Solutions, Inc. to revitalize the one-day Customer Service Leadership Program. Every person in an organization has the ability to make a positive impact on customer relations. This Program will help train yourself, your staff, and your organization to rise to a level of service excellence through leadership.

### LEADERSHIP & MANAGEMENT

#### PUBLIC UTILITY MANAGEMENT PROGRAM (PUMP)

Course Length: 6-Day; Two 3-Day Sessions

\*There may be two virtual sessions added to the schedule, in between the two in-person sessions (Spring and Fall). This is currently being determined.

#### Who Should Attend:

PUMP is designed for current and rising utility managers, business managers, customer service leaders, commissioners, and board members. The Program is designed to address varying levels of experience and perspectives, from utilities of varying sizes and complexities. Participants may have significant management experience and responsibilities, be individual contributors with oversight, or individuals expected to rise into management in the future.

#### Prerequisites:

There are no formal prerequisites for the Public Utility Management Program, however it is expected that participants are seen as current or future leaders in their own company.

#### Program Overview:

To help with succession planning and to position public power to address the increasing number of retirements and position changes in the industry, PUMP is designed for current and rising utility managers, business managers, customer service leaders, commissioners, and board members.

The Program is designed to address varying levels of experience and perspectives, from utilities of varying sizes and complexities. Participants may have significant management experience and responsibilities, be individual contributors with oversight, or individuals expected to rise into management in the future.

In its second iteration, PUMP is held three days a week for two weeks a year. The first session is held in the Spring and the second session is held in the Fall. Participants have a unique opportunity to learn, grow and network with colleagues from around the region as they hone their skills and knowledge in a thorough, interactive professional development.

#### SUPERVISORY SKILLS

Held every other year, next offering in 2023

- Course Length: 2-DayWho Should Attend:
  - This course is designed for:
  - · General Managers
  - · Directors
  - Supervisors
  - · Team Leads
  - Emerging Leaders
  - Project Manager
- Prerequisites:

There are no formal prerequisites for this program.

#### Program Overview:

NEPPA has partnered with Dale Carnegie Training to bring their high caliber supervisory and leadership training in-house for the Supervisory Skills Program. From the very beginning, participants are encouraged to identify the changes they desire and, more specifically, the behaviors they are seeking to change or improve. They are then asked to imagine the specific results they will achieve because of these new behaviors. The Supervisory Skills Program is designed to equip existing and emerging leaders with tangible skills to better manage themselves, their teams, and their organization.

Participants begin the Program gaining a deeper understanding of themselves and how to communicate and lead throughout an organization. The second week of the Program is dedicated to developing action- able skills to better perform and use their skills to enhance decision-making and improve performance.

### LINEWORKER TRAINING

#### APPRENTICE LINEWORKER PROGRAM

- Course Length: Four-Years, 16-days' Instruction + 2-Day Rodeo each year
- Who Should Attend:

NEPPA's Apprentice Lineworker Program is designed for company-sponsored Apprentices who can commit to both in-class participation and self-study of materials.

#### Prerequisites:

Students are required to complete the prior year's program prior to advancement in the Program. **NOTE:** NEPPA does offer prequalification testing for more experienced students looking to advance in the pro- gram by beginning in Year 2 or Year 3. Contact training@neppa.org for more information.

#### Program Overview:

NEPPA has adopted the four-year curriculum of the Northwest Lineman College's Lineworker Certification Program and combines hands-on and formal classroom training. Students attend class four sessions a year for four days each to complete the four-year program. In addition to required classroom lecture and skills development, students are expected to:

- · Self-study by reading the material
- · Track, record, and submit monthly apprenticeship reports of on-the-job training
- · Track, record and submit quarterly "competency" forms

Each year, students participate in an additional two-day Skills Assessment Rodeo. The Apprentice Rodeo is designed to showcase the apprentices' developing technical and climbing skills, and to reinforce the program's focus on professionalism, safety, and proper technique.

#### ADVANCED LINEWORKER PROGRAM

Held every other year, next offering in 2023

- Course Length: 12-Day, 3-days/week for 4 weeks
- Who Should Attend:

This program is designed for individuals with 5+ years of experience as a lineworker, lineworkers with increased crew or leadership responsibilities, or cross departmental employees with new or increased leadership of lineworker personnel.

#### Prerequisites:

Participants are expected to have completed NEPPA's Apprentice Lineworker Program (or another apprenticeship program). Participants are also expected to complete the Basic Electricity & Mathematics for Utility Operations course (held on Day 1 of the Program).

#### Program Overview:

Advanced Lineworker Program which is held 3-days/week for 4 weeks/year and is designed to equip participants with the knowledge, skills, and resources necessary to build, maintain, troubleshoot, and repair a distribution system.

Upon successful completion of the Program, students are awarded a Certificate of Completion. In addition to in-class lectures, the Advanced Lineworker Program incorporates hands-on application of concepts, facility tours, and weekly testing including a final exam to demonstrate knowledge and comprehension of the course content.

# WORKPLACE VIOLENCE, SAFETY & SECURITY (BLUE-U DEFENSE)

To meet the growing safety and security needs of our membership, NEPPA has established a partnership with Blue-U Defense to provide workplace violence, safety, and security training to its members at a discount.

Be sure to mention you're a NEPPA member to get the discounted rate! Since its founding in 2014, Blue-U Defense has become the nationally recognized leader in "reality-based" organizational safety and security-security that actually works on paper AND in reality. Their programs are built to provide effective, ongoing, and systematic training that contains all of the elements necessary to achieve true organizational and personal safety.

Some of their services include:



BE AWARE. BE PREPARED.

#### (NEW!) Mission: Protected - Stage One

Stage One will conclude the most significant improvement in your organizational safety and security in your company's history and includes:

- Establish safety and security goals and a mission statement
- Establish a baseline position and plan to achieve true security
- A thorough, practical physical site assessment
- Policy and Procedures Review
- Live, slow walkthrough drill
- A 2-hour live employee training session Establishing the Foundation for True Safety and Security

#### Blue-U Safe Business

The daily safety and security challenges that financial institutions and other organizations face can create risk of non-compliance, danger, and liability. Blue-U Defense presents an innovative, systematic solution to risk management. Blue-U's team of experts works closely with your team to ensure that you meet or exceed regulatory compliance and create a true culture of organizational safety and security.

#### Blue-U Live Service Training

Live training programs include:

- Surviving the Life-or-Death Gap The Foundation of True Safety and Security and the Beginning of Creating Culture
- Surviving The Life-Or-Death Gap Advanced Concepts And Tactics
- Rethinking True Organizational Safety And Security And The Consequences Of Not Doing Enough
- Recognizing Signs Of Violence And De-Escalation
- The Gatekeeper The Most Important, And Vulnerable, Person In Your Organization
- Drugs In The Workplace And Family Protecting Your Employees, Their Families, And Your Organization
- Employee/Client Threats Assessing And Managing Them Effectively
- The Bank Robbery Experience
- Today's Successful Security Professional The Non-Traditional Skills That Far Exceed The Importance
  Of The Traditional
- Physical Site Security From A Reality Perspective
- Policy/Procedure And Emergency Preparedness

Questions? Please contact training@neppa.org or reach out to Blue-U Defense directly at info@blue-u.com.

# SAFETY AUDITS (WORKPLACE SAFETY SOLUTIONS, INC.)

To help NEPPA's members reduce accidents through safety awareness, NEPPA has established a partnership with Workplace Safety Solutions, Inc. to provide Safety Audits and Field Crew Observations. This partnership has been developed to provide an independent third-party observation of employee practices and facilities to make independent recommendations on how best to meet federal and state requirements. Safety Audits include:

- 1. On-site inspection of facilities
- 2. Safe Work Practices
- 3. Survey and/or observation of employees

#### for an additional fee:

- 4. Audit Report
  - a. This report documents observations including recommendations, if any, to increase workplace safety, employee safety awareness and/or OSHA standards

#### **HOW IT WORKS**

NEPPA Members may inquire and schedule a Safety Audit by completing the form below. Safety Audits may be anywhere from one to three days depending on the size and scope of your request.

**NOTE**: Half-day Safety Audits may be conducted, but only in partnership with a nearby system to also conduct a half-day Safety Audit. For example, two neighboring systems both agree to conduct half-day audits on the same day, at alternating times.

Most Safety Audits and Observations can be completed in one to two days.

#### **SAFETY AUDIT FEES \***

Based on our agreement, NEPPA has secured the following fees to conduct Safety Audits for its members:

Service	Safety Audit/ Observation ONLY	Safety Audit/Observation
1-Day Safety Audit/Observation	\$1,500 (+expenses)	\$3,000 (+expenses)
2-Day Safety Audit/Observation	\$3,000 (+expenses)	\$4,500 (+expenses)
3-Day Safety Audit/Observation	\$4,500 (+expenses)	\$6,000 (+expenses)

<sup>\*</sup> Safety Audit fees are subject to change.







# **NEPPA @YOUR-SITE TRAINING**

#### **@YOUR-SITE SAFETY & TECHNICAL TRAINING**

In response to our members feedback and requests, NEPPA is continuing to make adjustments and improvements to our @Your-Site Training Program content and offerings.

To help utilities ensure that their employees are properly trained in working on or near energized equipment, NEPPA has developed a comprehensive safety training program for utility personnel. The program focuses on industry required training programs set by OSHA 1910.269, the National Electric Safety Code (NESC) and the American Public Power Association Safety Manual. In response to a number of requests, NEPPA has also developed a series of technical training sessions that can be used for new employees as well as a refresher course for more experienced lineworkers. The topics cover some theory but mostly the practical application of the most common line equipment utilized by electric utilities today.

NEPPA now offers a suite of @Your-Site training options including:

- In-Person Safety & Technical Training
  - Traditional classes are typically held from 8:00 am 11:00 am
  - OSHA Fundamentals Classes are held from 8:00 am 2:00 pm, unless otherwise requested.
  - Virtual training for the 3-hour "classroom only" topics are available upon request
- Virtual
  - Live, Instructor-led, 90-minute sessions offered via Zoom.
  - Sessions will be conducted live and recorded for access and reference after the broadcast.

    There is a separate registration form for this
- Online
  - Standard safety training programs offered online and on-demand through our partnership with J.J. Keller to provide OSHA compliant training.
  - Upon completion of online training: individuals receive a Certificate of Completion, including topics covered, to be kept for your records and/or reporting requirements.
  - The @Your-Site Online training is regularly updated to meet federal and state regulatory requirements.
  - The vast library of available training may also be utilized for new hire training.

    There is a separate registration form for this

Safety (S); Technical (T); Virtual (V)

#### AC Power Systems (T, V)

AC Power Systems, offered in-person or virtually, covers alternating current power from theory to generation to the effects of AC power on different circuits. It also compares three-phase power to single-phase power.

- Topics covered:
  - How AC differs from DC
  - How electromagnetic induction affects different circuits
  - How the components of an AC circuit affect power factor
  - What current and voltage do in series and parallel circuits
  - How three-phase power is generated and how it differs from single-phase power

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### Advanced Transformers (T, V)

Advanced Transformers, offered in-person or virtually, takes an in-depth look at how a transformer works and how it is built. It covers Lentz's Law and how electromagnetic induction creates a counter EMF to allow a trans- former to work. Angular displacement and vector analysis is covered in detail.

- Topics Covered:
  - Transformer theory
  - Transformer core construction
  - · Transformer windings and voltage ratios
  - Transformer ratings and applications
  - Angular displacement of the various connections
  - Vector analysis of three phase transformer banks

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### APPA Safety Manual Review (S. V)

Covers different Parts of the APPA Safety Manual to accomplish the following learning objectives:

- Have a basic understanding and roadmap to find work policies and procedures in the APPA Safety Manu- al
- Understand how to incorporate the APPA Safety Manual into everyday work practices
- Gain an introductory level of knowledge to industry best-practices as it relates to safety standards, as ad- opted by the APPA Safety Manual Identify crucial sections of the Manual for utility work and operations.

#### Format:

Lecture with class interaction and discussion. **NOTE:** The APPA Safety Manual is taught in two parts, as two separate training sessions. Upon request, NEPPA can arrange a high-level APPA Safety Manual Review (i.e., one 3-hour training session).

What to Bring:

Current APPA Safety Manual.

Safety (S); Technical (T); Virtual (V)

#### Arc Flash Safety (S)

Preparation and prevention of arc flashes is a critical component of safe utility operations. In addition to discussion of your systems Arc Flash Hazard Assessment, this session will review the various rules and regulations which guide arc flash safety.

#### This material explores the following:

- Electrical Arc Flash Hazard Review
- · Define an arc flash.
- What elements impact the severity of the arc flash... relationship to clearing time.
- · Performing risk assessments before work begins.
- · OSHA rules on performing an assessment to determine the hazard.
- PPE requirements
- Case studies to demonstrate examples of arc flash assessments
- Mitigation Techniques

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

What to Bring:

Current APPA Safety Manual and Arc Flash Hazard Assessment

#### Bucket & Pole Top Rescue (S; Annually Required) 29 CFR 1910.269 (a)(2)

Bucket & Pole Top Rescue covers the appropriate steps to take during an emergency electrical contact, including situation analysis, qualified observer requirements, rescuer protection followed by practical exercises. Students will learn:

- Bucket Truck Rescue Systems
- Pole Top Rescue Procedures
- Structure and Tower Rescue Procedures
- Participants will also have hands-on application of methods through a practical demonstration of rescue procedures

#### Format:

Lecture with class interaction and discussion followed by each participant making a simulated rescue.

#### What to Bring:

Current APPA Safety Manual, fall-protection climbing gear, and each type of bucket truck from the utility.

Note: Training locations are expected to provide a safe rescue site for students to conduct a practical demonstration. Only participants qualified to climb are permitted to conduct the pole-top rescue demonstration

# **NEPPA @YOUR-SITE TRAINING**

### SAFETY & TECHNICAL

Safety (S); Technical (T); Virtual (V)

#### Capacitors (T, V)

Capacitors, offered virtually or in-person, covers what a capacitor is, why they are needed, and how they affect the power system. Safe work procedures are also included.

#### Topics covered:

- The electrostatic field
- · What's inside the case
- The relationship of voltage and current in resistive, inductive, and capacitive circuits
- · Why capacitors are needed
- · Calculating power factor
- · The hazards of working with capacitors and the necessary PPE required for safe operation
- Safe work procedures for working on capacitors

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### Chainsaw & Chipper Safety (S)

Each year, approximately 36,000 people are treated in hospital emergency departments for injuries from using chain saws (source: CDC.gov). Chainsaw & Chipper Safety introduces participants to hazard awareness, safety precautions, PPE, and safe operations.

Students will learn the following safety requirements:

Employers and employees should be trained to understand the hazards associated with chainsaws and chippers to ensure safe operation including:

- · Maintenance and safe operation
- Safe felling operations and kickback prevention

#### **PPE Requirements Training covers:**

- Correct operation of the chipper and its safety controls.
- · Manufacturer's instructions on operation, inspection, and maintenance of the chipper.
- · Proper procedures for machine start-up and shutdown.
- Correct use and maintenance of personal protective equipment (PPE).

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### What to Bring:

Current APPA Safety Manual, chainsaws, woodchippers and appropriate PPE (including chaps) for proper inspection.

# **NEPPA @YOUR-SITE TRAINING**

### SAFETY & TECHNICAL

Safety (S); Technical (T); Virtual (V)

#### Circuit Breakers (T, V)

This class covers the main function of a circuit breaker and how it extinguishes an arc. The different operating mechanisms and safe work practices are also covered.

#### This session explores the following:

- · Factors used to extinguish arcs
- · Arc Interrupting Mechanisms
- · Breaker Operating Mechanisms
- Breaker Tests
- Racking a Breaker
- · Personal Protective Equipment

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### Electrical Safety for First Responders (S)

The purpose of this training is to provide your community's First Responder Personnel with Electrical Hazard Awareness information when and if their work requires them to work in an emergency near:

- Downed Wires
- Overhead Electrical Circuits Underground Electrical Circuits
- Substations

**NOTE:** This training is not intended to substitute any required series training, or any specific work-related training, nor does it "Qualify" any personnel to work on any electrical equipment.

In addition to the standard "lecture" program available, our team can work with utilities and local departments to conduct a mock accident involving a downed wire, or even an injured utility worker.

#### Electrical Test Equipment (T)

Electrical Test Equipment prepares participants to proficiently identify and use electrical test equipment in the field and in a substation.

#### Topics covered include:

- · High and Low Voltage test equipment Cable & Fault Locators Phasing Sticks
- Power Analyzers
- Arrester Testing

#### Format

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

Safety (S); Technical (T); Virtual (V)

#### Electrical Theory (T, V)

Electrical Theory covers the basics of electricity from atomic structure to AC power.

- Topics covered:
  - Atomic Structure
  - · Law of Charges & Law of Centrifugal Force Current Flow and Magnetism Static Electricity
  - Volts, Amps, Ohms Ohm's Law Define Electric Power

#### Format

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### Emergency Action & Evacuation Plans, Fire Extinguishers, Ladder Safety, and Optional Hearing Conservation (S, Annually Required)

As an annually required topic, Emergency Action & Evacuation Plans and Fire Extinguishers is offered as part of Workplace Safety B and the OSHA Fundamentals 2 classes.

- Students will learn to:
  - Recognize benefits of an Emergency Action Plan.
  - · Identify elements of Fire Protection Plan.
  - · Identify which evacuation actions are necessary.
  - Identify when shelter-in-place may be required.
  - · Identify an effective emergency escape route.
  - Recognize the five types of fire extinguishers.
  - Review requirements for proper maintenance of portable fire extinguishers.

#### Format:

Lecture with class interaction and discussion. NOTE: To meet annual OSHA requirements for Fire Extinguisher training, each participant is required to operate a fire extinguisher

#### Enclosed & Confined Spaces (S, Annually Required) 29 CFR 1910.269 (e)

This training defines "Confined Spaces" vs. "Enclosed Spaces," and techniques to use to perform a safe rescue from an Enclosed or Confined space.

- Upon completion, participants will:
  - Understand Definitions & Acronyms
  - Understand difference between a confined space, permit-required confined space, or an enclosed space.
  - Understand the range of hazards and methods to control hazards
  - Explain entry procedures
  - Identify and demonstrate a variety of rescue methods Rescue gear setup and drill Participants are also required to demonstrate enclosed and confined space rescue procedures.
- Format:

Lecture with class interaction and discussion followed by each participant making a simulated rescue.

What to Bring:

Current APPA Safety Manual, proper rescue equipment, and an atmospheric tester.

Note: Training locations are expected to provide a safe rescue site for students to conduct a practical demonstration

Please visit www.neppa.org for course dates or contact training@neppa.org for more information.

Safety (S); Technical (T); Virtual (V)

#### Environmental and Green Power Safety (S, V) New Combo in 2023

This class covers understanding Hazards, Prevention for Environmental and Green Power Safety including:

- Environmental Factors Animals & Insects
- Polychlorinated Biphenyl (PCB's)
- Asbestos
- Warm Weather Injuries & Hazards Cold Weather Injuries & Hazards
- UV Exposure, Hazards, Protection & Prevention
- Skin Cancer
- Understand basic definitions and applicable standards related to Distributed Energy Resources and Energy Storage.
- · Explain the differences in DER connections and the potential hazards associated with load.
- · Understand inverter-based generation and risks.
- Identify power flow and voltage issues, including hazard mitigation steps.
- Explain DER risks and safety considerations.
- Identify potential system upgrades, modifications and/or operating practices due to DER.
- · Cover common questions and hazard summary.

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### What to Bring:

Current APPA Safety Manual.

#### Ergonomics (S, V)

Although not required by legislation, incorporating ergonomics into your company's work culture can help prevent workplace strain or injury. Principles of proper body mechanics when performing everyday tasks and the importance of posture while sitting, standing, sleeping, and driving, as well as the consequences of improper posture and other potential contributing factors that could result in musculoskeletal disorders.

#### Students will learn:

- Awareness of proper posture and body mechanics for performing everyday tasks on and off the job Identifying and performing various strength and stretching exercises
- Understanding the importance of proper positioning to their overall health and well-being

#### Format:

Lecture and hands-on demonstration and execution of stretches and strength exercises. Class is a maximum of 2.5 hours.

Safety (S); Technical (T); Virtual (V)

- Hazardous Communication (HAZCOM, i.e. Right to Know) & Blood Borne Pathogens
   Add On: Silica Protection, where applicable (S, V, Annually Required) 29 CFR 1910.1200, 1030
   This course includes a review of the RTK law with the current Global Harmonization System and a review of the blood borne pathogens regulations.
  - Students will learn:
    - Purpose of the Hazard Communication Standard
    - How to identify the elements of a Hazard Communication written program. Labeling requirements and pictograms
    - Applicable OSHA Standards
    - · Modes of blood borne pathogen transmission and universal precautions
    - Exposure Control Plans
    - Decontamination, exposure requirements and employer responsibilities
    - ADD ON: Silica Protection covers:
    - Define what crystalline silica is; where it's found; health effects, reducing or eliminating the hazard.
  - Format:

Lecture with class interaction and discussion.

What to Bring: Current APPA Safety Manual

#### Hoisting (S, T, Required in Massachusetts)

NEPPA offers test preparation and continuing education training for 1B-1D and 2A-2C Hoisting.

- 1B-1D Hoisting covers the following:
  - Laws of 1B Hoisting
  - · Definitions of Terms
  - GHS Review
  - HOISTSAFE Acronym
  - · Effects of Chemicals and Extreme
  - · Safe Rigging Practices
- 2A-2C Hoisting covers the following:
  - · Excavation laws, regulations, standards
  - Soil classification
  - Soil testing
  - Competent person responsibilities
  - Hazards associated with trenches
  - Protective systems

Safety (S); Technical (T); Virtual (V)

- Hot Stick Safety (S)
  - Upon completion of this session, students will:
    - · Understand the history of hotline work.
    - Minimum Approach Distance (MAD)
    - Types of Hot Sticks
    - · Use, Care & Maintenance of Hot Sticks
    - Testing
    - OSHA Regulations
    - · Personal Protective Equipment
- Job Briefings (S)
  - Upon completion of the course, the participant will be able to:
    - Understand and appreciate the importance of a Job Briefing
    - · Understand employer and employee responsibilities
    - Answer the following:
      - o What is the purpose of a job briefing?
      - o What should a job briefing include?
    - · Identify regulations involving job briefings
    - Conduct Recordkeeping & Reporting

#### Lockout/Tagout and Switching & Tagging (S, T, V)

LOTO covers servicing and maintenance of machines and equipment in which unexpected activation or release of stored energy could cause injury to employees. Switching & Tagging covers de-energizing lines and equipment for employee protection with and without a dispatcher.

- Upon completion of the course, the participant will be able to:
  - Explain Electrical Hazards Including Shock and Arc Flash.
  - Define Qualifications for Electrical Workers.
  - Describe Approach Boundaries: Restricted, Limited, Arc Flash Protection Boundaries.
  - · Demonstrate Personal Protective Equipment.
  - Describe Safety-Related Work Practices including methods to De-energize, LOTO and Test.
  - · Understand wiring requirements.
  - · Understand Switching & Tagging procedures.
  - Determine roles of person in charge and switch person. What's the difference?
  - Explain when switching and tagging is utilized vs. DNO tag.
  - Define clearance.
  - Understand OSHA requirements for de-energizing lines and equipment for protection.
- Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

What to Bring:

Current APPA Manual, Company LOTO and Switching & Tagging procedures

Safety (S); Technical (T); Virtual (V)

#### Medic First Aid/CPR/AED (S, Annually Required)

Per OSHA, any job component that is expected to be performed, but not practiced on a regular basis must be demonstrated at least annually. For operations and distribution work, this includes First Aid/CPR/AED training (which is expected to be performed in an emergency event until medical emergency personnel arrive).

#### Format:

Blended and traditional training platforms are offered. Traditional training is strongly encouraged. Involves cognitive learning with hands-on training.

- Upon completion, participants will:
  - Demonstrate cognitive understanding of Basic First Aid/CPR/AED use.
  - Demonstrate competent ability to perform rescue breaths, compressions, and apply basic first aid.
  - Upon completion of the training, students are provided with a First Aid/CPR/AED Certification.

#### Metering Safety (S, V)

#### Upon completion of the course, the participant will be able to:

- Identify safe work practices
- Understand electrical hazards and mitigation
- Define Qualified Worker and training requirements.
- Describe new OSHA regulations as they relate to metering.

- Qualified Employees
- Minimum Approach Distance
- PPE
- Identify physical hazards and risk levels for various meter installations.
- · Demonstrate meter specific hazard

#### OSHA Fundamentals (S. Annually Required)

NEPPA's OSHA Fundamentals courses were developed to enable members to cover annually required topics in one longer session (vs. multiple 3-hour programs).

#### OSHA Fundamentals 1 (4 - 5 hrs.):

Hazardous Communication (HazCom i.e. Right to Know), Blood Borne Pathogens, Spill Prevention Control & Countermeasures

#### OSHA Fundamentals 2 (5 - 6 hrs., for rescue practical):

(Optional) Silica Protection and Hearing Conservation, Enclosed & Confined Spaces

#### OSHA Fundamentals 3 (5 - 6 hrs., for rescue practical):

Lock Out/Tag Out (LOTO), Switching & Tagging, Bucket & Pole Top Rescue

#### OSHA Fundamentals 4 (4 - 5 hrs.):

Forklift Training & Practical Demonstration (vs. Awareness or Refresher Training) Refresher is required every 3 years

#### OSHA Fundamentals 5 (4 - 5 hrs.): new in 2023

Emergency Action & Evacuation Plans, Fire Extinguishers, Ladder Safety, Optional Hearing Conservation, and Walking & Working Surfaces

#### Format:

Lecture with hands-on applications and rescue demonstrations, where applicable. When provided, these programs can be tailored and focused to your procedures.

#### What to Bring:

Current safety manual, applicable safety procedures, and climbing or rescue equipment

Safety (S); Technical (T); Virtual (V)

#### Personal Protective Equipment (S, T)

Personal Protective Equipment (PPE) is the last line of defense in the hierarchy of controls for hazards, but it is often the most visible protection during daily work.

- Upon completion, participants can recognize and assess hazardous conditions and safety related practices required including use of personal protective equipment (PPE).
  - · Identify major hazards
  - · Describe types of hazards
  - · Protect yourself from these hazards
  - · Recognize employer requirements to protect workers from these hazards

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### What to Bring:

Current APPA Safety Manual

#### Personal Protective Grounding (S, T, V) 29 CFR 1910.269 (m)

Proper steps must be taken to safely de-energize lines and equipment and proper steps that must be taken to install grounds to protect employees.

#### Students will learn:

- Why Ground?
- The Effects of Current Flow Across the Body
- OSHA 1910.269 (n)
- · Grounding Methods
- Bracket Grounding
- Equipotential Grounding
- · Practical demonstration of proper grounding techniques

#### Format:

Lecture with class interaction, discussion, and practical demonstration of proper grounding techniques. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### What to Bring:

Current APPA Safety Manual

Safety (S); Technical (T); Virtual (V)

#### Reclosers (T)

Reclosers covers the purpose and application of reclosers on a distribution system. Also covered are system faults, recloser application and safe work procedures while working on a recloser, or the circuit fed by a circuit recloser.

#### Upon completion, participants will:

- Understand the purpose, operation, and maintenance of reclosers on distribution systems.
- Ability to identify different types, classifications, controls, and interrupters of reclosers.
   Understand application of reclosers in system protection Review how to bypass and replace a recloser
- · Program a recloser control.

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### Relays (T, V)

Offered in-person or virtually, this class explores the basic functions, elements, and purpose of relays in system protection including different types of relays.

#### Upon completion, participants are able to:

- · Understand the main functions of a relay.
- · Identify the five (5) main elements of relays.
- Identify and explain various types of relays

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

#### Rigging, Ropes & Safety (S, V)

This class covers the practical application of weights and loads, the Working Load Limit of equipment, shock load, sling angles and parted blocks with snatch blocks.

#### Students will learn:

- · How to calculate strains and tensions found in rigging
- The Working Load Limit
- Different types of rope
- · How knots affect the Working Load Limit
- How to apply their knowledge to practical applications in line work
- · Parted blocks and snatch blocks
- The importance of safety in rigging

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate hands-on application and demonstration of concepts and equipment.

#### What to Bring:

Current APPA Safety Manual and a calculator.

NOTE: Rigging, Ropes and Safety does NOT satisfy MA Hoisting Licensing requirements. Please see page 23.

Safety (S); Technical (T); Virtual (V)

#### Rubber Gloving and Insulate & Isolate (S, T, V)

Offered in-person or virtually, this class stresses the importance of cover-up and use of rubber gloves and sleeves as an industry best practice.

#### Upon completion, participants will:

- Understand Insulate & Isolate Requirements
- How to Properly Insulate & Isolate
- Use, Care, Testing & Inspection of Rated Protective Equipment:
- Insulator Hoods
- Pole Guards
- Line Hoses
- Use, Care, Testing & Inspection of Rated & Tested Protective Equipment:
- Rubber Gloves & Sleeves
- Rubber Blankets
- Work Area Safety
- · Understand Arc Flash Safety: Hazards in Open Air

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools, equipment, and rubber goods.

What to Bring:

Current APPA Safety Manual.

#### Spill Prevention Control & Countermeasures (S)

This class covers the OSHA standards, requirements, and interpretation of Spill Prevention Control & Countermeasures. Upon completion, participants will have the ability to:

- Define application of OSHA's HAZWOPER standard,
- Discuss general requirements
- Define emergency response
- · Discuss levels of response and competencies
- · Discuss training requirements

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

What to Bring:

Current APPA Safety Manual.

#### Substation Components & Safety (S, T, V)

Offered in-person or virtually, Substation Components & Safety explores the key elements of a substation including its role in the transmission and distribution system and how that can affect the safe operation, maintenance, and repair of equipment. Upon completion, participants can:

- · Identify major types of substations
- Understand differences and classifications of power transformers Identify hazards in the safe operation and maintenance of substation batteries Electrical hazards and personal protective equipment (PPE) DC fuse protection
- OSHA regulations for electric utilities in substations

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate hands-on application and demonstration of concepts and equipment.

What to Bring:

Current APPA Safety Manual.

Safety (S); Technical (T); Virtual (V)

#### System Protection (T, V)

The primary objective of "System Protection" is to protect the public and utility employees, reduce the damage to electrical equipment, and reduce the duration and number of outages on any system. This class covers line and equipment protection utilized by virtually all electric utilities.

#### Students will learn:

- · Electrical system protection fundamentals
- Distribution lines and equipment Lightning protection Substation protection
- Outage record keeping

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

What to Bring:

Current APPA Safety Manual.

#### Transformer Review & Connections (T. V)

Transformer Review & Connections covers a review of electromagnetic induction, the components of a transformer and their functions, bushing arrangements and the various types of transformers. Some basic field testing of transformers is also discussed.

#### Upon completion, participants will explore:

- · Definition of a Transformer
- Identify Types of Transformers
- Understand How a Transformer Works
- Understand Transformer Ratings & Nameplates
- Single Phase Transformers
- · Calculating Load Paralleling Three Phase
- Connections
- Paralleling
- · Transformer Connections & Analysis Trends & Troubleshooting

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate examination and demonstration of utility tools and equipment.

What to Bring:

Current APPA Safety Manual

#### Trouble Investigation (S, T, V)

This class covers several typical scenarios of power disturbances/outages.

- Students will learn:
  - Difference between a temporary and permanent repair
  - Properly follow emergency response and trouble reporting protocol.
  - Walk through steps to troubleshoot:
  - · Overhead Primary Outage
  - Underground Primary Outage
  - Voltage Regulators
  - Capacitors
  - · Overhead & Step Transformers
  - Service Troubles

#### Format:

Highly interactive discussion and problem-solving scenarios.

#### What to Bring:

Current APPA Safety Manual and practical examples of past situations and case studies.

Safety (S); Technical (T); Virtual (V)

#### Underground Distribution Review (T, V)

This class discusses the design of underground electrical conductors with the related substructure and covers trenching and excavation. URD splicing, terminating, and marking are also discussed. Upon completion, participants will:

- · Discuss history and types of underground installations
- · Identify different conductor types, components, and cable specifications
- · Discuss cable testing and fault locating
- · Understand substructure and cable installation considerations
- Identify best practices of pulling cables
- · Understand methods of Splicing, Terminating, & Marking

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment, including the proper use of fault locating tools.

#### Voltage Regulators (T)

This class covers the theory of operation and the construction of step voltage regulators and load tap changers. Control setting and programming are presented along with safe work practices and the hazards of volt- age regulators is stressed. Upon completion, participants will:

- · Understand Induced Voltage
- Identify Induction Voltage Regulators
- Identify Step Voltage Regulators
- Understand Autotransformers
- Understand How Step Voltage Regulators work
- How they are controlled/programmed
- · How they can be maintained

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate inspection of utility tools and equipment.

NOTE: The use and availability of a voltage regulator to demonstrate concepts learned is very helpful.

Safety (S); Technical (T); Virtual (V)

#### Work Zone Safety (S, V) 29 CFR 1910.269 (w)(6)

Covers the MUTCD Part 6 which shows typical layouts for numerous scenarios that may be encountered on road- ways throughout an electric utility.

#### Students will learn:

- · The importance of Work Zone Safety
- · What rules, codes and guidelines should be followed?
- Best Practices
- What equipment is required for adequate work zone protection?
- Demonstrate ability to properly set up a work zone for safe operations.
- Applying the Manual on Uniform Traffic Control Devices (MUTCD) to Work Zones.
- · Basic principles of Work Zone setups for utilities

#### Format:

Lecture with class interaction and discussion. Where possible, trainers will incorporate participant demonstration

of proper work zone set-ups in different scenarios.

#### What to Bring:

Current APPA Safety Manual, MUTCD and Work Zone Safety Handbook (electronic copies available upon request).

Note: Training locations should provide all equipment and signs necessary to demonstrate proper work zone set-up.

#### **Looking for Custom Training?**

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