



Comprehensive Staking Certification Program

Phase 2: Application and Use of the 2023 NESC, Easement Acquisition, Permitting, & Line Inspections

March 9-12, 2027

Registration Information

Contact

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Location

SLEMCO
2727 SE Evangeline Thruway
Lafayette, LA 70508

Who Should Attend?

Engineers • Staking Technicians
Power Line Workers • Contractors

Sponsored by:



Courses conducted by:



Note: Phases 1-3 of this program do not have to be taken in order.

Course Descriptions

APPLICATION AND USE OF 2023 NESC: The 2023 National Electrical Safety Code was released August 1, 2022 with many proposed changes and additions, most directly affecting distribution systems. Learning these changes is imperative for personnel responsible for the safe design, construction, and operations of an electric utility system. This seminar focuses on the application of the 2023 National Electrical Safety Code, with particular emphasis on the changes to the existing rules and new rules. Engineers, staking technicians, foremen, and construction contractors will benefit from this course.

1. Section 1 - Introduction to the NESC
2. Section 9 - Ground Methods
3. Part 1 - Electric Supply Stations
4. Section 21 - General Requirements
 - a) Inspection and testing
 - b) Grounding of guys
 - c) Grounding of non-current-carrying parts
5. Section 25 - Loading of Lines
 - a) Grades of construction
 - b) Loading criteria
 - c) Load factors
6. Section 26 - Strength Requirements
 - a) Strength factors
 - b) Structures, crossarms, and conductors
 - c) Guys and anchor
7. Section 27 - Line Insulation
8. Section 23 - Clearances
 - e) Vertical clearances over roads and water
 - b) Clearances from buildings, pools, signs, etc.
 - c) Clearance between conductors
 - d) Climbing space/working space
 - e) Joint-use clearances
9. Part 3 - Underground Lines
 - a) Underground conduit systems and direct buried cable
10. Part 4 - Operation of Electric Supply
 - a) Arc flash requirements
 - b) Approach distances

EASEMENT ACQUISITION: Participants will learn about land ownership rights, titles, easement descriptions, and recording easements. Students will also learn valuable negotiating skills to aid in the procurement of an easement.

1. General
 - a) Boundary and easement law
 - b) Locating property according to the Public Land Survey
 - c) Locating property according to a metes and bounds survey
 - d) Types of land ownership and types of easements
2. Anatomy of an Easement
 - a) Legal elements and description
 - b) Signatures, notarizing, and recording
3. Effective Negotiating
 - a) Understanding people and personalities
 - b) Defining and responding to different behavior types
 - c) Principles of negotiating, closing the deal, and breaking deadlock
 - d) Effectively communicating with landowners
 - e) Establishing good negotiating traits
4. Special Situations
 - a) Dealing with a hostile landowner
 - b) Bartering for easements with old poles and services
 - c) Establishing easement by prescription and adverse possession
 - d) Obtaining an easement through condemnation

Note: Phases 1-3 of this program do not have to be taken in order.

Course Descriptions

PERMITTING: Participants will learn the information required to obtain a permit, how to set up an efficient permitting process, how to establish good personnel contacts to ease the process, and how to prepare permit documents and drawings.

1. General
 - a) Establishing contact personnel
 - b) Grounding of guys
 - c) Tracking progress in the permitting process
 - d) Maintaining records and drawings (paper and electronic)
2. Departments of Transportation (State, County, and Municipal)
 - a) Encroachment, crossing, and work permits
 - b) Permit forms, vicinity maps, and traffic control diagrams
 - c) Load factors
3. U.S. Corps of Engineers
 - a) Wetlands permits
 - b) Navigable water crossing permits
4. U.S. Fish and Wildlife
 - a) Migratory birds
 - b) Bald and Golden Eagles
 - c) Endangered species
5. Railroads
 - a) BNSF, CSX, Union Pacific, and Norfolk Southern
 - b) Types of permits
 - c) Permitting process and fees

LINE INSPECTION: The National Electrical Safety Code requires that a utility inspect its facilities periodically to ensure that they are safe and adequate to distribute electricity. Participants will learn the principles of making an inspection. The course will discuss the importance of a systematic method, the elements that should be checked, and different ways to perform the actual inspection.

1. NESC Requirements
 - a) Frequency of inspections
 - b) Code violations and reporting
2. Records and Maps
 - a) Handwritten inspection forms
 - b) Electronic data entry (GPS) and managements
3. Methods of Inspections
 - a) Helicopter and binoculars
 - b) Vehicle ride through
 - c) Foot patrol detailed inspection
4. Detailed Visual Inspection
 - a) Clearances and other NESC requirements
 - b) Condition of conductors, structures, and equipment
 - c) Presence of required signage
 - d) Vegetation and environmental interference with lines
5. Pole Strength or Integrity
 - a) Visual inspection only of above ground pole surface
 - b) Visual inspection combined with sounding and screwdriver penetration
 - c) Sonar and moisture/penetration
 - d) Determination of strength or condition
 - e) Marking and record keeping

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