

**SECTION E**  
**APPRENTICE LINEMAN IV**  
**(FOURTH 2000 HOURS)**

**OVERVIEW OF TRAINING LEVEL**

**Goal Of The Fourth 2000 Hours**

The goal of the fourth and final 2000 hours is for you to complete the development of skills and knowledge to be able to perform all types of distribution line construction, operations, and maintenance.

**Your Working Conditions**

You will assume greater responsibility for competing pole work. While you will continue to work with a qualified Lineman or Crew Leader.

You will be expected to perform all kinds of line work on both energized and de-energized lines. Work on energized lines, however, must still be under the close supervision of a qualified Lineman or Crew Leader.

If you are used for any work off your home system, you shall be permitted to climb energized poles or structures but only under the close supervision of a qualified Lineman or Crew Leader.

**Supervisor**

You will work under the direction of the Crew Leader of the crew to which you are assigned for both work and training activities. Your Crew Leader is responsible for your personal safety and your training activities.

**Length Of Training**

You will remain in the Lineman IV classification for twelve months. (Exception: Credit for work hours could possibly be granted based on prior work experience.)

**How You Will Progress**

At the end of the twelve-month period, the Superintendent will decide if you will be advanced to the position of Lineman. Before advancement, you will demonstrate that you have developed the skills and acquired the knowledge expected of an Apprentice Lineman IV.

## **OVERVIEW OF WHAT YOU WILL LEARN**

### **Materials And Equipment**

You will be responsible for learning how to:

- Operate and work from an aerial bucket, performing maintenance work on energized lines under supervision help install capacitors, voltage regulators, and instrument transformers
- Assist in substation installations and maintenance
- Assist in installation, operation, and maintenance of underground distribution system

### **Safety Practices And Training**

You should be able to assist in training activities as an instructor. By your own work practices, you are expected to set an example of safe practices for other Apprentice Linemen.

### **Electrical Theory**

You will continue to receive advanced training in electrical theory.

### **Records, Reports, And Related Information**

You will continue to expand your knowledge of three-phase line construction, maintenance specifications, and electrical codes.

You will become familiar with the:

- Cooperative's billing procedures so that you can explain them
- Complete consumer location procedure

**JOB COMPETENCY/DEMONSTRATION FORM**  
**(Fourth 2000 Hours)**

_____ (Name of apprentice) is competent in or has demonstrated the ability to, or understanding of:	Approving supervisor's signature and date
Read distribution maps	
Properly supervise the loading of poles on a pole trailer and secure the poles and attaching flags	
Plumb and line up a pole prior to back-filling and tamping	
At a substation, identify the following: <ul style="list-style-type: none"> <li>• Transmission side</li> <li>• Power transformers</li> <li>• P.T.s</li> <li>• Regulators</li> <li>• Recloser and distribution side</li> </ul>	
Explain the method of pulling in new wires on re-conductoring projects	
Give the proper clearance required for a primary and service wire, crossing a highway and waterways	
Proper procedure to use when replacing a phase wire that has burned down in mid span on a three-phase line	
Explain what precautions should be taken stringing wire parallel to or in the vicinity of a high voltage line	
De-energize a single-phase line at an oil circuit breaker	
The proper procedure to dispose of a damaged single-phase capacitor	
Make primary cable terminations for underground or pad mount	
Explain the function of a current limited fuse in a CSP transformer	
Check the polarity of transformers used in a three-phase bank	
Explain what is known as the high leg of a three-phase 4-wire 120/240-power bank	
Assist in installing a single-phase step voltage regulator on a pole	
Change a closed delta transformer bank to three-phase open delta if or when one transformer fails	
Explain the correct procedure of removing a step-voltage regulator from service	
Use a phase indicator or tester to check out the phases of a distribution primary circuit at a point that is normally open to determine which wires can be connected together underground fault finding equipment	
Trouble shooting on overhead and underground lines single and three-phase metering equipment	
Standard first aid (re-certified)	
Safety Manual information/procedures	
Take an energized regulator out of service	
Utility policies	
Utility record keeping	

Explain all types of metering used on the distribution system	
Explain where and how C.Ts are used	