

## NO RTEC JOB SPECIFIC SKILLS COMPETENCY

### ELECTRIC POWER LINE REPAIRER (utilities - light, heat, and power- industry)

DOT: 821.361-026 SVP 7

**Job Description:** Repair and replace cables or wires used in electrical power or distribution systems. *Physical Demands* - Active w/heavy lifting, carrying, or moving (up to 100 lbs). *General Educational Development* - R4 M4 L4; *Aptitudes* - Average General Learning Ability, Verbal, Numerical, Spatial, Form Perception, Motor Coordination, Finger Dexterity and Manual Dexterity.

#### CORE SKILL COMPETENCIES/INDICATORS:

1. Can demonstrate an understanding of basic electrical theory, and how electricity (AC and DC) is manipulated and utilized in a power system. (R, IN, S, T)
2. Can demonstrate a working knowledge of industry-specific safety procedures and OSHA regulations. (IN, S)
3. Can demonstrate an understanding of uniform electrical codes. (IN, S)
4. Can demonstrate ability to read and accurately interpret blueprints, circuit diagrams/specifications, and service orders. (IN, S)
5. Can demonstrate a basic understanding of common hardware and construction methods used in electrical transmission. (R, IN, S, T)
6. Can demonstrate a basic understanding of the operation of regulators, capacitors, conduits, and other pole line equipment. (R, IN, S, T)
7. Can demonstrate mathematically and in the field how transformers work, are connected and banked, how to read voltages and troubleshoot. (R, IN, S, T)
8. Can demonstrate the ability to properly identify, select, and operate hand and power tools specific to the task. (R, S, T)
9. Can demonstrate proper procedure for climbing utility poles or working from a bucket-truck to repair or replace defective power lines, hardware, and other equipment. (R, S, T)
10. Can demonstrate proper technique used to tie knots, splice rope, install blocks and lines on power lines for hoisting purposes. (R, IN, S, T)
11. Can demonstrate ability to calculate tension applied in various rigging configurations. (R, IN, S, T)
12. Can demonstrate ability to accurately test electric power lines and auxiliary equipment, using direct reading and testing instruments. (R, IN, S, T)
13. Can demonstrate proper techniques used to open switches or clamp grounding devices to deenergize disturbed or fallen lines or remove electrical hazards prior to repair. (R, IN, S, T)
14. Can demonstrate proper techniques used to facilitate safe handling of energized high-voltage lines to avoid disruption of services by power shutoff. (R, IN, S, T)
15. Can demonstrate proper techniques used to remove defective wires and secure new wires to cross arm insulators. (R, S, T)
16. Can demonstrate proper techniques used to splice wire to adjoining sections of line to complete circuit. (R, IN, S, T)
17. Can demonstrate proper techniques used to transfer wires from defective utility poles to newly erected poles. (R, S, T)
18. Can demonstrate proper techniques used to install utility pole hardware and auxiliary equipment such as transformers, lightning arresters, switches, fuses, and insulators, as needed. (R, S, T)
19. Can demonstrate proper techniques used to repair energized or deenergized conductors suspended from electrically conductive metal towers. (R, S, T)
20. Can demonstrate ability to observe and correctly diagnose electrical/electronic problems. (IN, S, T)

21. **Can demonstrate ability to solve unusual and vague problems in a practical way by identifying the nature of the problem. (R, I, IN, S, T)**
22. **Can demonstrate ability to appropriately clean and maintain tools and equipment. (S, T)**
23. **Can demonstrate ability to work with precision as regards the attainment of set limits, tolerances, or standards. (IN, S, T)**
24. **Can demonstrate ability to work in all types of weather at heights up to 200 ft. (R, I)**
25. **Can demonstrate ability to work effectively as a member of a team. (R, I)**
26. **Can demonstrate ability to work under stress to meet schedule deadlines. (R, I)**