**O.16**
**WORK PROCESS SCHEDULE**
**POWER-LINE DISTRIBUTION ERECTOR**
**O*NET-SOC CODE: 49-9051.00 RAPIDS CODE: 0281**
**ALTERNATE TITLE: LINE ERECTOR**

This trade schedule is attached to and a part of the Apprenticeship Standards for the above identified occupation. This sequence of Related Classroom Instruction is competency based and will be offered as traditional classroom training or independent study, which may include electronic media.

1. **TERM OF APPRENTICESHIP**

   The term of the occupation shall be three (3) years with an OJL attainment of 6,000 hours supplemented by the required hours of related technical instruction.

2. **RATIO OF APPRENTICES TO JOURNEYPERSONS**

   One (1) Apprentice to one (1) Journeyperson: one apprentice for the first skilled journeyperson employed, and one additional apprentice for each additional skilled journeyperson employed thereafter. A fraction-there-of will be adhered to.

3. **APPRENTICE WAGE SCHEDULE**

   Apprentices shall be paid a progressively increasing schedule of wages based on a percentage of the current journeyperson wage rate.

   **Term: 7000 Hours**

   1st 1000 hours = 60 % of journeyperson's rate
   2nd 1000 hours = 65 % of journeyperson's rate
   3rd 1000 hours = 70 % of journeyperson's rate
   4th 1000 hours = 75 % of journeyperson's rate
   5th 1000 hours = 80 % of journeyperson's rate
   6th 1000 hours = 85 % of journeyperson's rate
   7th 1000 hours = 90 % of journeyperson's rate

4. **SCHEDULE OF WORK EXPERIENCE** (See attached Work Process Schedule)

   Apprenticeship Oversight Committee may add to the work processes prior to submitting these Standards to the Division of Apprentice Training for approval.

5. **SCHEDULE OF RELATED TECHNICAL INSTRUCTION** (See attached Related Classroom Instruction Outline)

   Instruction can incorporate elements of both electronic media and traditional classroom including online training, distance learning, or independent study of established curriculum.

   Curricula modules are based on industry standardized applications of current construction practices. Modules are knowledge and skill based including a system for assessment. The

assessment will include task objectives, procedures, review materials, and competency-based performance tests.

**O.16 - WORK PROCESS SCHEDULE** **HOURS**

This instruction and experience shall include the following operations, but not necessarily in the listed sequence. Time spent on specific operations need not be continuous.

1. Install Electrical Distribution Systems 1500
   a. Guy anchor
   b. Pole equipment
   c. Capacitor banks
   d. Substation equipment
   e. Utility meters
   f. Armor rods
   g. Direct burial cable
   h. Cable markers
   i. Underground cable ducts
   j. Cable racks
   k. Test grounding systems
2. Perform Maintenance and Inspection Duties 1500
   a. Control vegetation in power line right-of-way and substations
   b. Inspect conductors, poles, cross arms, fences and warning signs
   c. Check for corroded hardware, fuse cutouts, high voltage switches, circuit breakers and regulators and deterioration of cable, connectors and poles
   d. Perform di-electric and load tests
3. Troubleshoot and Repair System Components 1000
   a. Replace defective conductor, cross arms, substation breeders, transformers, regulators and relays
   b. Transfer hot and dead conductors to new poles
4. Utilize Electrical Line Service Tools and Equipment 1500
   a. Utilize hand tools and hotline tools safely and use rubber protection as needed
   b. Operate equipment
5. Perform Street and Security Lighting Activities 500
   a. Install street and flood light fixtures
   b. Lighting control components and ballast

**TOTAL HOURS** **6000**

**O.16 - POWER-LINE DISTRIBUTION ERECTOR RELATED CLASSROOM INSTRUCTION**

*Note*: Due to regional and local code differences and climate conditions, duration of instructional competencies/modules is suggested estimates only.

| **Modules** | **Hours** |
|---|---|
| Introduction to T&D | 80 |

- Distribution
- Transmission
- Overhead Distribution Systems
- Climbing Wooden Poles
- Rigging I & II

Safety in T&D Maintenance 80

- Mobile Hydraulic Systems
- Hydraulic Hand Tools I&II
- Compressors & Pneumatic Tools
- Hydraulic Derricks & Digging Equipment
- Bucket Trucks I & II

Electrical Safety 80

- Reading Diagrams I&II
- Climbing Steel poles and Towers
- Setting & Replacing Poles
- Pole Framing & Guying
- Troubleshooting Overhead Lines

URD Systems 80

- Safety in URD
- URD Cable/Conduit
- Basic Electricity Review
- Distribution Repair (Gloves)
- Distribution Repair (Sticks)
- Distribution Line Installation

System Protection & Monitoring 80

- Pole Top Equip. Replacement I &II
- AC Fundamentals Review
- Electromagnetic Induction Review
- Substations and Switchyards
- Transformer Connections I
- Transformer Connections II

Transformer Troubleshooting 80

- Service Installations
- Padmount Transformers & Switchgear
- Cable Fault Locating I & II
- Cable Splicing I
- Cable Splicing II
- Cable Terminations

**TOTAL HOURS** **480**

DAT apprenticeship program standards recommend 150 hours of related technical instruction per year.