

POWERLINE SYSTEMS/2 (180 Hours)

Course No.: 72-75-85

COMPETENCY CHECKLIST

Student Name _____

Teacher Name _____ School Site _____

Start Date _____ Completion Date _____ Certificate Date _____

Teacher Signature _____ Student Signature _____

(Signatures verify completion of course competencies)

A. INTRODUCTION AND SAFETY (5 hrs)

- _____ 1. Scope and purpose of course
- _____ 2. Course content
- _____ 3. Classroom policies and procedures
- _____ 4. First aid/emergency procedures
- _____ 5. Different occupations in Energy & Utilities
- _____ 6. Gender equity/employment opportunities
- _____ 7. CAL/OSHA laws governing HVAC technicians
- _____ 8. Impact of EPA legislation
- _____ 9. Procedures for hazardous waste removal
- _____ 10. NEC and its role in working conditions
- _____ 11. MSDS as it applies to the powerline systems
- _____ 12. LEED Green Building Rating System
- _____ 13. LA City/Safety Codes & powerline systems
- _____ 14. CA Title 24 Energy Efficiency Standards
- _____ 15. Pass safety test with 100% accuracy

B. RESOURCE MANAGEMENT REVIEW (2 hrs)

- _____ 1. Terms related to resource management
- _____ 2. Managing time, materials, personnel
- _____ 3. Examples of effective management
- _____ 4. Benefits of effective resource management
- _____ 5. Economic benefits/liabilities to environment

C. TRADE MATHEMATICS REVIEW (10 hrs)

- _____ 1. Practical applications of math to industry
- _____ 2. Problem-solving with whole numbers
- _____ 3. Problem-solving with fractions
- _____ 4. Problem-solving with decimals
- _____ 5. Changing fractions to decimals
- _____ 6. Changing decimals to fractions
- _____ 7. English & metric measuring of length
- _____ 8. English & metric measuring of weight
- _____ 9. English & metric measuring volume/capacity

- _____ 10. Problem-solving for measuring problems
- _____ 11. Measure using tools common to the trade
- _____ 12. Metric units of 10 - ascending and descending
- _____ 13. Convert English numbering system to metric
- _____ 14. Convert metric system to English numbering
- _____ 15. Calculate square roots of numbers
- _____ 16. Problem-solving for geometric problems
- _____ 17. Problem-solving for algebraic problems
- _____ 18. Problem-solving using percentages
- _____ 19. Demonstrate reading and interpreting graphs
- _____ 20. Demonstrate techniques for using a calculator
- _____ 21. Pass a utility entry level exam

D. RIGGING I (30 hrs)

- _____ 1. Define rigging
- _____ 2. Identify various types of ropes
- _____ 3. Working & breaking strength/safety factor
- _____ 4. Features/functions of sheaves used in rigging
- _____ 5. Identify proper "block size-to-rope size" ratio
- _____ 6. Demonstrate tying various knots and hitches
- _____ 7. Demonstrate basic rigging concepts/technique

E. MATERIAL PREPARATION & DELIVERY/DISTRIBUTION SYSTEM CONSTRUCTION (30 hrs)

- _____ 1. Materials used in powerline constructions
- _____ 2. Demo powerline construction techniques

F. POWERLINE SYSTEM (25 hrs)

- _____ 1. Basic structure of utilities power system
- _____ 2. Receiving stations vs. distribution stations
- _____ 3. Identify conductors used in distribution
- _____ 4. Function of distribution transformer
- _____ 5. Troubleshoot/isolate failures in system

G. TOOLS (15 hrs)

- _____ 1. Names/uses of tools used in trade
- _____ 2. Info about personal protective equipment
- _____ 3. Care/inspection techniques of rubber goods
- _____ 4. Live-line tool use on voltages above 7500
- _____ 5. Use of bucket & auger-derrick truck

H. POLE CLIMBING AND ARIAL CONSTRUCTION 1
(50 hrs)

- _____ 1. Various classes of pole & brand heights
- _____ 2. Demo basic climbing & pole techniques

I. INDUSTRY EXAMINATION PREPARATION

(10 hrs)

- _____ 1. Complete industry-related practice exam

J. EMPLOYABILITY SKILLS REVIEW (3 hrs)

- _____ 1. Employer requirements
- _____ 2. Identify potential employers in job search
- _____ 3. Electronic social networking in the job search
- _____ 4. Sample resume and cover letter
- _____ 5. Accurate/legible/complete job application
- _____ 6. Sample job application
- _____ 7. Enthusiasm for job
- _____ 8. Appropriate appearance on job
- _____ 9. Continuous upgrading of job skills
- _____ 10. Customer service to establish relationships
- _____ 11. Appropriate interview techniques
- _____ 12. Resources to use for successful interview
- _____ 13. Update sample follow-up letters
- _____ 14. Appropriate follow-up procedures