JOB DESCRIPTION

Coachella Valley Water District Date: July 2002

TITLE: HVAC Technician II SECTION: Electrical

DEPARTMENT: Service

REPORTING RELATIONSHIP:

Reports to: Electrical Supervisor

Supervises the following positions: Not applicable

DEFINITION: Under direction performs a variety of Air Conditioning work. This would include the installation, maintenance and repair on a variety of air conditioning equipment. This may include pumps, compressors, controls, pneumatic devices and other related work as required. Provides training to subordinates in advanced electrical/mechanical methods and procedures relating to the air conditioning industry.

ESSENTIAL FUNCTIONS:

1. Plans, directs, and records periodic electrical testing, and recommends or initiates modification or replacement of equipment which fails to meet acceptable operating standards.

2. Maintains records and logs of equipment to effectively predict the need for service or repair in order to minimize down time.

3. Develops wiring diagrams and layout drawings for system or equipment modifications or expansion, and directs personnel performing routine installation and maintenance duties.

4. Studies system blueprints, specifications, and performance data to determine configuration and purpose of system components such as motors, pumps, fans, switches, ducts, or pipes. Inspects system to verify system compliance with specifications and to detect malfunctions in system component parts.

5. Assembles and maintains Air Conditioning control devices, solenoids, thermostats, pressure switches, temperature switches and other Air Conditioning related equipment and components.

6. Retrofits equipment with CFC refrigerants to new HCFC refrigerants, blends and HFC refrigerants. This includes the proper flushing and changing of oil as required.

7. Properly sizes, orders and installs air conditioning and refrigeration equipment, including complete systems in new and existing district facilities.
ESSENTIAL FUNCTIONS (Cont.):

8. Installs and connects power supply wiring and conduit for newly installed machines and equipment. Connects cables and wires between machines and equipment.

9. Observes mechanical devices in operation and listens to their sounds to locate causes of trouble. Dismantles devices to gain access to and remove defective parts. Starts devices to test their performance. Discuss system operation with users and other electrical/mechanical workers to verify that malfunctions have been corrected.

10. Tests performance of air and water systems to isolate problems and determine where adjustments are necessary. Opens and closes louvers in system ductwork or adjusts flow control valves in piping to balance system.

11. Tests coils, armatures, stator, rotor and field coils for continuity, shorts, and grounds and insulation resistance. Examines for broken or defective wiring.

12. Diagnoses and replaces faulty mechanical, hydraulic, and pneumatic components of machines and equipment.

13. Examines bearings, shafts, and other moving parts for excessive wear or defects. Replaces defective motor bearings and motors.

14. Adheres to District safety policies and procedures, which include confined space procedures.

15. Gathers tools and supplies to be used at work site. Maintains tools and equipment and keeps supplies and parts in order. Cleans work area, machines, tools, and equipment.


17. Diagnose and repair problems with pumps, including line shaft, centrifugal and submersible pumps.

18. Maintains quality and minimal cost on assigned jobs.

19. Assist in the development and planning of jobs.

20. Assist in the scheduling and coordinating of preventative maintenance programs.

21. Trains subordinates in advanced electrical/mechanical air conditioning methods and procedures.
ESSENTIAL FUNCTIONS (Cont.):

22. Maintains, services, repairs and disposes of Air Conditioning and refrigeration equipment adhering to Refrigeration Containment regulations.

23. Maintains, troubleshoots and repairs open loop, closed loop and flow through water systems. This includes evaporative condensers, cooling tower, chilled water loops and heated water loops.

24. Maintains, troubleshoots and repairs Trane pneumatic VAV systems and Carrier electronic VVT systems.

25. Tests and adjusts water system chemical levels to provide proper protection against corrosion and scaling.

MINIMUM QUALIFICATIONS:

License or Certificates: Valid California Operators license issued by the State Department of Motor Vehicles. Department of Motor Vehicles driving record may influence employment or classification. Valid United States Environmental Protection Agency Refrigerant Containment Type IV Universal technician certification.

Experience: Minimum of five years in installation and repairs on industrial and commercial refrigeration units. This also includes experience on installation and repairs of commercial ice machines.

Knowledge of:

- Electrical theory, practices, tools and equipment.
- Mechanical theory, practices tools, and equipment.
- Principles and practices of refrigerant containment.
- Water testing and treatment used in air conditioning and refrigeration equipment.
- Refrigerant selection and retrofit procedures.
- Principles and practices for the maintenance and repair of air conditioning systems in Industrial, Commercial and residential applications.
- Principles in installation, maintenance and repairs on commercial icemakers.
- Electrical codes and related ordinance and regulations.
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KNOWLEDGE OF (Cont):

- Principles and practices for the installation, maintenance and repair of pumps and pump apparatus.
- Principles and practices for the installation, maintenance and repair of electric motors.
- Safe working practices including confined spaces.

ABILITIES:

- Analyze, diagnose, troubleshoot, inspect, install, maintain, and repair a variety of electrical and mechanical equipment under minimal supervision.
- Effectively develop and plan out jobs using appropriate cost control and scheduling methods.
- Train subordinates in Air Conditioning theory, practices, troubleshooting techniques, and equipment usage.
- Maintain accurate logs, records, reports, and charts.
- Read and interpret maintenance procedures from manuals.
- Read and understand blueprints, diagrams, and schematic of electrical and mechanical equipment.
- Work safely around energized electrical and mechanical equipment.
- Follow written and oral directions.
- Work cooperatively with others.
- Provide technical support and work direction to others.
- Communicate effectively with others.
- Use hand and power tools in a safe manner.

PHYSICAL REQUIREMENTS:

1. Drive District vehicle to job sites including over rough terrain. Uses a two-way radio for communication.

2. Works in extreme weather conditions including heat and rain. Will work in areas containing dust, fumes and exhaust.

3. Climbs ladders and works at heights up to 100 feet.

4. May work in potential confined spaces. Must have the ability to wear and use appropriate safety equipment including a Self-Contained Breathing Apparatus (SCBA).

5. Will work nights, weekends, holidays, overtime, and stand-by when required.

6. Lift and carry objects in excess of 50 pounds.

See Human Resources for physical assessment form