Job Title: Facilities Energy Mgmt. Equip Technician Wage/Hour Status: Hourly

**Reports to:** Energy Manager Pay Grade: 408

**Dept. /School:** Maintenance, Buildings and Grounds **Date Revised:** October 24, 2022

#### **Primary Purpose**

Provide a comfortable instruction and learning environment in District schools by effectively maintaining the Energy Management Systems' control of refrigeration and air conditioning equipment.

# Qualifications

## **Education/Certification**

High School Diploma/GED
Associate Degree in HVAC
Certified in Type II and Type III Refrigerant Transition and Recovery
Valid Driver's License

#### Special Knowledge/Skills

- Ability to communicate effectively
- Knowledge of HVAC electrical, pneumatic and microprocessor controls
- Ability to follow verbal and written instructions
- Ability to work independently
- Ability to evaluate all types of HVAC systems
- Strong verbal communication skills

# Experience

Ten (10) years general HVAC experience

Five (5) years' experience utilizing test equipment and schematics to troubleshoot Automated Logic Control (ALC) 20/20 energy management system

Two (2) years' experience in electronics

### **Major Responsibilities and Duties**

- 1. Troubleshoot energy management system ALC 20/20 modules, including but not limited to G8102e, G4106p, G800, X8102e, G8102, Z540v, and modems.
- 2. Diagnose control circuit problems with devices such as relays, contactors, air solenoid valves, PE (pneumatic-electric) switches, pneumatic relays, and pneumatic valves.
- Troubleshoot problems with zone sensors, outside ambient sensors, humidity sensors, hot and chilled water sensors, air and water status switches.
- 4. Maintain EMCS Servers at campuses by compressing database for WebControl updating Microsoft software. Troubleshoot and clear communication line problems between modules or to the central computer utilizing Supervision or WebControl software.
- 5. Program and set module dip switches for designated addresses.
- 6. Modify the dipswitch setting on modems at the central computer or in the field as conditions warrant.
- 7. Troubleshoot Analog inputs (AI), Digital Inputs (DI), and Digital Outputs (DO). Perform conversions of AI's to DI's.
- 8. Analyze network problems on Direct Digital Control systems by testing repeaters, diagboard, network protector boards, and control modules.
- Ability to read and interpret HVAC drawings, control schematics, blueprints/blue lines, electrical code, electrical specifications, and diagrams for installation and repair of building and control systems.
- 10. Diagnose problems with control circuits, air handlers, and temperature sensors including calibration, pneumatic and electric chilled water and hot water valves, and boiler control circuitry, cooling towers, condenser fans, and associated controls.11

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- 11. Cable gateway modules to Ethernet hub and troubleshoot any problems between hub and module. Work with the Technology Department on the use of Internet Protocol (IP) Addresses for campus servers, langate modules, frequency drives, chillers, etc.
- 12. Upgrade exec. 3 control modules to the latest exec. 6, including gateway modules.
- 13. Adjust and commission software with laptop or base computer to improve operations of heating and cooling systems.
- 14. Check heating and cooling values to ensure the healthful operation of heat, ventilation, and air conditioning units for air quality.
- 15. Upgrade outdated Energy Management System (EMS) panels with new enclosure, electrical controls, calibrate, test and download new software with laptop.
- 16. Operate vehicle, equipment, and uses tools following established safety procedures.
- 17. Ensure work performed complies with EPISD EMS standard practices, design specifications, and local building codes.
- 18. Use laptop to schedule A/C equipment, as needed by faculty, at all EPISD buildings and schools.
- 19. Maintain tools and equipment and perform preventive maintenance as required.
- 20. Provide technical support to EPISD personnel.
- 21. Follow established safety procedures and techniques to perform job duties, including lifting, climbing, etc.
- 22. Correct unsafe conditions in the area and report any conditions that are not correctable to the supervisor immediately.
- 23. Must keep up with new technology changes in software and hardware.
- 24. Perform other duties as assigned by supervisor.

### **Supervisory Responsibilities**

None

## **Equipment Used**

Laptop computer and accessories, calibrating equipment, building pressure and duct static pressure, electrical and electronic testing equipment, and power tools, phone, Ethernet testing equipment, EPISD District Van.

#### **Physical and Mental Job Requirements**

## Mental Demands/Physical Demands/Environmental Factors

Work indoor and outdoor. Frequent heavy lifting and carrying; climbing, stooping, bending, kneeling, and reaching. Must be able to lift 45 pounds and over. Frequent districtwide travel; occasional prolonged and irregular hours.

# **Terms of Employment**

238 days; hourly rate to be established by the Board of Trustees

The foregoing statements describe the general purpose and responsibilities assigned to this job and are not an exhaustive list of all responsibilities and duties that may be assigned or skills that may be required.

Approved:	 
Job Title:	 
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Job Title:	 
Date:	 

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#### 550200 Facilities Energy Mgmt Equip Technician

My supervisor has re	viewed this job description with me and has provided me a copy
Employee:	
Date:	

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