

ELK GROVE UNIFIED SCHOOL DISTRICT

CLASS TITLE: HVAC SPECIALIST

BASIC FUNCTION:

Under the direction of the Manager-Maintenance or designee, perform journey-level mechanical and electrical work in the inspection, service, installation, repair and alteration of heating, air-conditioning and refrigeration systems and related equipment; maintain, repair, operate and program the District energy management system and related components. Work collaboratively with outside contractors and vendors.

ESSENTIAL FUNCTIONS:

Install, service, maintain, troubleshoot and repair heating, air conditioning and refrigeration systems and equipment such as chillers, water cooling systems, boilers, air handling and refrigeration and freezing equipment; perform maintenance on equipment as required.

Perform preventive maintenance on equipment such as filters, belts and lubrication.

Maintain and repair direct digital controls systems; troubleshoot controllers and networks; install and replace digital upload and download programs to devices; create and modify software programs; save and maintain computer software for EMCS.

Troubleshoot and diagnose malfunctions and determine repair needs; tests for defective parts.

Maintain temperature reset controls, thermostats, pneumatic transducers, pneumatic control systems, valves and dampers.

Install, repair and replace low and high pressure water chilling equipment; troubleshoot and repair master temperature controls; purge units, oil pumps, supply and return pumps and related equipment; clean condenser tubes; measure and maintain proper operating temperature on evaporators and condensers.

Inspect, repair, maintain, rebuild and replace reciprocating and centrifugal compressors; clean rodding; maintain and service water towers, closed water systems, water pumps and other related equipment.

Operate and service chemical treatment equipment, including chemical feed pumps, conductivity monitors and total dissolved solid bleed systems; repair and replace bearings, shafts, pulleys, belts, fans and gear boxes; perform seasonal cleaning and preventive maintenance and repair on cooling tower infrastructure.

Repair, install and maintain pneumatic control systems, including air compressors, low and high voltage control systems and related sensory instrumentation and controls for appropriate airflow.

Maintain and repair closed loop hot water boilers; service and repair low pressure boiler operating and safety controls; repair and replace domestic circulation pumps for hot water.

Service, repair, maintain and replace air blowers, exhaust fans, ventilators, coolers, gas fired heating equipment.

Troubleshoot and repair controls and other related auxiliary equipment; maintain chemical treatment programs.

Test systems and joints; insulate pipes pertaining to heating or ventilation systems.

Maintain and repair commercial or industrial compressors, supply fans, condenser fans and motors, including supply condenser, return and damper control; troubleshoot and repair compressor sequencers, solid state control boards and other controls; disconnect contacts, switches, timers and relays.

Fabricate, repair, and install duct work and covers.

Operate and maintain a variety of specialized hand and power tools and equipment; drive a District vehicle to conduct work; order materials through vendors; respond to emergency situations.

Service, repair, replace and maintain walk-in freezers, domestic and commercial food storage refrigerators, ice machines, water and beverage coolers and other related equipment.

Assure work completed and in progress comply with applicable EPA approved transition and recovery laws, rules and regulations; review and comment on building plans and specifications for modernization and new building projects.

Assist other maintenance staff with projects as assigned.

Perform related duties as assigned.

DEMONSTRATED KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Methods, materials, tools and equipment used in the maintenance and repair of air conditioning, ventilation and heating equipment.

Building codes, policies, regulations, and guidelines pertaining to typical school District ventilation and heating systems.

Section 608 of the federal Clean Air Act and related EPA regulations.

Safe working methods and procedures.

Proper lifting techniques.

Proper use of refrigerant recovery equipment and safe disposal of refrigerant containers.

Technical aspects of field of specialty.

Health and safety regulations.
Safety practices and operation of oxy-acetylene welding equipment.
Operation and safety practices of a man lift, scissor lift and man lift truck.
Interpersonal skills using tact, patience and courtesy.

ABILITY TO:

Perform journey-level repair, maintenance and installation of air conditioning, ventilation, heating and refrigeration equipment.
Work from blueprints, shop drawings, sketches, manuals, and diagrams.
Operate oxy-acetylene welding equipment.
Maintain records and prepare complete and concise reports.
Understand and follow oral and written directions.
Establish and maintain cooperative and effective working relationships with others.
Operate, adjust and service specialized equipment used in the basic trade.
Speak, read and write English at a level required for satisfactory performance.
Use a breathing respirator as needed.
Maintain consistent, punctual and regular attendance.
Climb ladders.
Walk and stand for extended periods of time.
Bend at the waist, kneel or crouch.
Reach overhead, above the shoulders and horizontally.
Hear and speak to exchange information.
Move hands and fingers to operate hand tools and specialized equipment.
Use proper lifting methods.

EDUCATION AND EXPERIENCE REQUIRED:

Any combination equivalent to: graduation from high school supplemented by completion of an approved HVAC apprenticeship program and five years of journey-level HVAC experience.

LICENSES AND OTHER REQUIREMENTS:

Valid California Class C driver's license.
Valid EPA Refrigerant Recycling certification.
Incumbents must obtain certification to wear a respirator within probationary period.
Floor-lift 90 pounds and arm-lift 90 pounds.

WORKING CONDITIONS:

ENVIRONMENT:

Indoor and outdoor work environment.
Driving a vehicle to conduct work.
Subject to fumes and noise from air conditioning and refrigeration equipment.

HAZARDS:

Electrical power supply and high voltage.

Working in a cramped or restrictive work chamber.

Exposure to air filter dirt, dust, and particulates.

Using ladders to access rooftops and HVAC equipment.

Exposure to vapors and fumes.