

HEATING, VENTILATION, AIR CONDITIONING TECHNICIAN

BASIC FUNCTION:

Under supervision of the Director of Maintenance and Operations or designee, the incumbent performs skilled work in the maintenance and repair of heating, ventilation, and air conditioning equipment; hot water boilers; and ice machines. Installs, monitors, programs, maintains, troubleshoots, and schedules in the Energy Management Systems for all environmental systems. Values and promotes the mission and vision of the District.

CLASS CHARACTERISTICS:

Incumbents, under minimal supervision, are expected to perform skilled work on energy management systems including but not limited to installation, monitoring, scheduling, programming, troubleshooting, diagnostics, maintenance, testing, and balancing. The incumbent may perform maintenance and repair on chillers; heating, ventilation, and air conditioning equipment; and hot-water boilers. Incumbents may assist other maintenance trades as needed. Incumbents must be able to perform tasks independently or with minimal help.

REPRESENTATIVE DUTIES:

- Inspect, repair, maintain and service, troubleshoot, program, schedule, test, and install direct digital controls (DDC) and digital programs, energy management systems (EMS), and all associated equipment such as but not limited to, damper controls, sensors, circuit boards, routers, and relays. **E**
- Perform routine scheduled maintenance of HVAC equipment. **E**
- Install, replace, adjust, and repair valves, fans, motors, gaskets, filters, belts, fuses, controls, thermostats, sensors, damper controls, circuit boards, switches, gauges, tubing, and pipes and all related equipment.
- Cut, bend, and join tubing and pipes. **E**
- Test and balance systems by pressure, temperature, and flow tests. **E**
- Test joints and insulate pipes of refrigeration, boiler, or air conditioning systems. **E**
- Design, fabricate, repair, and install ductwork and chassis covers. **E**
- Install, repair, and connect motors to control panels and control panels to power. **E**
- Inspect, disassemble, repair, maintain, and install forced air heating, cooling, and ventilation equipment. **E**
- Maintain, monitor, and repair boilers for domestic hot water and heating systems and all other related equipment; adjust and install valves, thermostats, fans, pressure regulators and pumps; flush boilers, de-scale tubing, cut and thread pipe. **E**
- Inspect, repair, maintain, service, and install all types of heating, ventilation, and air conditioning units along with related electrical and plumbing equipment. **E**
- Recommend necessary parts and equipment for repair work and new installations. Order and store materials approved by the supervisor and maintain appropriate ordering documentation.
- Respond to emergency repairs after working hours, as required. **E**
- May interact with outside contractors.
- Assist in other maintenance areas as needed or assigned.

- Plan and organize assigned tasks.
- Maintain time, labor, and material records of work performed and submit reports as required.
- May direct the work of others.
- Operate standard power equipment and hand tools.
- Perform other related duties as assigned.

KNOWLEDGE OF:

Installing, troubleshooting, maintaining, programming, and scheduling energy management systems.

Pipe fitting, sheet metal work, and electrical work, as it pertains to heating, refrigeration, ventilation and air conditioning repairs and installations.

Electronic and pneumatic damper controls, variable speed/frequency drives, various sensors, relays, and thermostats.

The procedures and proper use of the tools and equipment used in the maintenance and repair of refrigeration, heating, air conditioning, ventilation, and boiler equipment.

Appropriate safety precautions and procedures.

ABILITY TO:

Perform programming, diagnostics, and scheduling of energy management systems.

Perform skilled work in the maintenance and repair of a wide range of heating, ventilation, and air conditioning equipment; chillers; and boilers.

Work Independently.

Plan and lay out work including estimating labor, time for completion, and material costs.

Work from diagrams, blueprints, plans, and specifications.

Maintain records and update as-built drawings.

Use a computer for recordkeeping, programming, setting up equipment, accessing work orders, emails, technical support, and other related correspondence.

Work in confined spaces.

Operate a truck, van, or other district vehicle following legal and defensive driving practices.

Understand and carry out verbal and written directions.

Work cooperatively with others.

Perform work on high ladders, man lifts, and scaffolding.

Perform work in ceilings and under floor spaces.

EDUCATION AND EXPERIENCE:

Graduation from High School; five years of Journeyman level experience in emergency management systems; and the maintenance and repair of heating, ventilation, air conditioning systems, and boilers.

LICENSES AND OTHER REQUIREMENTS:

- Possession of a valid and appropriate California driver's license.
- Universal Refrigeration certificate.
- Forklift Operator certificate within the first year of employment.
- Manlift Operator certificate within the first year of employment.

WORKING CONDITIONS**ENVIRONMENT:**

Indoor and outdoor work environments.

Subject to various weather conditions.

Working with crane operators for removing or installing equipment on rooftops or hard to access areas.

Interruptions while performing normal duties during the regular workday.

PHYSICAL ABILITIES:

Climbing up and down ladders for prolonged periods.

Standing and walking for prolonged periods.

Bending, kneeling, and reaching overhead.

Operating powered boom and scissor lifts – maximum height 60 feet.

Lifting, carrying, pushing and/or pulling heavy objects – maximum weight **60** pounds.

Dexterity of hands and fingers to operate small hand and power tools and equipment.

Seeing to inspect, repair, maintain and service, troubleshoot, program, schedule, test, install equipment, and read work orders.

HAZARDS:

Working at heights.

Exposure to noise from equipment operation.

Working around machinery with moving parts.

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SMJUHSD

Range 31