

MAINTENANCE SPECIALIST – HVAC

DEFINITION

Under direction, performs skilled trades work pertaining to the installation, repair and maintenance of refrigeration, heating, ventilation and air conditioning equipment and systems; performs semi-skilled duties related to swimming pool maintenance and other maintenance trade areas; and performs related work as assigned.

DISTINGUISHING CHARACTERISTICS

This is a specialist level, skilled maintenance class in the Maintenance Support Series within the Yosemite Community College District (YCCD). Incumbents in this class perform specialized duties involving the installation, repair and maintenance of heating/ventilation/air conditioning (HVAC) and related systems. Incumbents utilize specialized skills that have generally been obtained through technical education and/or substantial on-the-job experience.

This class can be distinguished from the lower-level class of Maintenance Technician because incumbents in that class perform semi-skilled maintenance duties that often span multiple maintenance trade areas. It can be distinguished from higher-level Maintenance Lead classes because incumbents in those classes serve as lead workers by assigning, directing and monitoring the work of subordinate skilled and semi-skilled staff on a regular, project or assignment basis.

SUPERVISION RECEIVED AND EXERCISED

Incumbents in this class work under the direction of a manager, receiving occasional supervision while working toward a definite objective that requires use of a wide range of procedures. Incumbents plan and/or determine specific procedures or equipment required to meet assigned objectives and solve non-routine problems, referring only unusual matters to the supervisor.

An incumbent in this class does not directly lead or supervise other full-time employees, but may assign, direct and/or monitor the work of subordinate full time and/or part time employees on a project or assignment basis.

EXAMPLES OF DUTIES (*Illustrative Only*)

- Inspects, repairs, maintains and services refrigeration, heating, ventilation, air conditioning and related equipment and systems.
- Monitors the computerized energy management system to verify that computerized equipment is running properly; troubleshoots system controls and devices; repairs, adjusts, calibrates and services computers and peripherals associated with the system; installs and maintains field hardware and communication links.
- Adjusts facility temperature settings based on climate, season, and use requirements; sets system timing to heat or cool buildings for classes, meetings and other scheduled events; establishes shut down times to maximize system efficiency.
- Responds to trouble calls regarding malfunctioning systems and equipment.

- Tests systems for defective parts and equipment by utilizing a variety of specialized tools; tests joints and insulates pipes.
- Installs, replaces and repairs valves, fans, motors, gaskets, filters, belts, fuses, controls, thermostats, switches, gauges, tubing, pipes and other items as needed; adjusts valves, thermostats and fans.
- Maintains low pressure steam and hot water boilers in good running condition; keeps daily records of water, fuel and chemical usage.
- Performs maintenance on swimming pools; checks and tests the operation of pool equipment such as pool covers, heaters, the surge pit, circulating pumps, filters, chemical pumps and controllers; checks chemical levels in tanks; maintains and repairs pool controls, equipment and liquid chemical lines as needed.
- Cuts, binds and joins materials to install and replace tubing and pipes; plans, designs, fabricates and installs sheet metal ducting, hoods and plenums for the proper operation of heating, air conditioning and ventilation equipment.
- Troubleshoots general electrical and plumbing problems; install new electrical circuits and other equipment as assigned; installs new water lines, fixes plumbing fixtures and installs new plumbing units as assigned.
- Connects motors to control panels and control panels to power sources.
- Plans, organizes and lays out assigned tasks; estimates labor and material project costs.
- Maintains a variety of records including those related to preventive maintenance and service performed.
- Monitors supply and equipment inventories and recommends/requisitions purchases.
- Performs semi-skilled duties related to other maintenance trade areas.
- Performs other related duties as assigned.

TYPICAL WORKING CONDITIONS

- Work typically occurs in both indoor and outdoor environments. Duties may involve exposure to hot, cold, wet, humid, or windy conditions caused by weather; travel from site to site; and exposure to potentially hazardous chemicals, noise, dust and fumes.

MINIMUM QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The knowledge and ability requirements are representative of essential duties. Reasonable accommodation may be made to enable individuals with disabilities to perform the essential functions of the position.

Knowledge of:

- Skilled methods, techniques, supplies, materials, and equipment utilized in HVAC work pertaining to facility, building, and equipment maintenance, repair, and construction.
- Legal mandates, policies, regulations, and guidelines pertaining to the maintenance, repair, and construction of public facilities, office buildings, and equipment.
- Principles and procedures of routine preventive maintenance.
- Occupational hazards and standard safety practices.

Ability to:

- Drive a service vehicle to and from work sites.
- Operate a variety of manual and motorized tools.
- Accurately estimate time and material costs.
- Perform highly skilled and complex craft maintenance functions.
- Interpret blueprints, plans, drawings, schematics, and other data pertaining to the maintenance, repair, and construction of facilities, office buildings, and equipment.
- Maintain a data management, storage, and retrieval system.
- Understand and carry out oral and written directions with minimal accountability controls.
- Communicate effectively, both orally and in writing.
- Establish and maintain cooperative working relationships with those contacted during the course of the work.

Licenses and Certificates:

- A valid license to drive in California is required.
- Possession of a current certificate that meets the requirements of the Clean Air Act, Section 608 (regarding ozone depletion), as administered by the Environmental Protection Agency, is required.

Physical and Mental Standards:

- **Mobility:** ability to ascend and descend ladders, stairs, scaffolding, and ramps; walk or stand for extended periods.
- **Dexterity:** must have a full range of motion in the upper extremities; manual dexterity to operate equipment and use hand tools, and handle and work with various materials and objects.
- **Lifting:** frequently lift, carry, push, pull, or otherwise move objects up to 50 pounds; occasionally lift objects up to 75 pounds.
- **Visual Requirements:** close vision sufficient to read files, documents, and computer screens and do close-up work; ability to adjust focus frequently.
- **Hearing/Talking:** ability to hear normal speech, speak and hear on the telephone, and speak in person.
- **Emotional/Psychological Factors:** ability to make decisions and concentrate; frequent contact with others including some public contact.

Education and Experience:

Any combination of education, experience and/or training that would likely provide the above-required knowledge, skills and abilities is qualifying. Typical background patterns that would provide the knowledge, skills and abilities are:

- Education: Possession of a High School diploma or GED.
- Experience: Two years performing semi-skilled HVAC maintenance duties.
- Substitution: Completion of an approved HVAC vocational training course may substitute for one of the above-required years of experience.

Special Requirements:

- None