

SANTA CLARA COUNTY OFFICE OF EDUCATION
Personnel Commission

CLASS TITLE: MECHANIC, HVAC

DESCRIPTION OF BASIC FUNCTION AND RESPONSIBILITIES:

To perform a variety of highly complex and skilled maintenance work in the installation, repair, regulation, and maintenance of heating, ventilation, refrigeration, and air conditioning equipment and to perform highly skilled maintenance and repair work to other mechanical and electrical equipment as assigned.

DISTINGUISHING CHARACTERISTICS

The main responsibility of this classification is maintenance of heating, ventilation and air conditioning systems. Employees in this classification receive direction from a supervisory level within a framework of general policies and procedures. Employees in this classification serve in a lead capacity, particularly in the maintenance of the heating, ventilation and air conditioning systems. This job class exercises independent judgment in the selection of methods and procedures used within specialized areas of the building trades. This job class functions at an advanced master mechanic journey level of classification. May be required to be available during off duty hours for emergency situations.

ESSENTIAL AND TYPICAL DUTIES

Periodically disassembles and overhauls large centrifugal and reciprocating refrigeration compressors, absorption chillers and related equipment; tests and calibrates equipment to verify proper operation

Determines and schedules preventive maintenance for all heating, ventilating, and air conditioning systems

Performs complex repairs on air conditioning units, and ventilating fans

Performs complex repairs to HVAC compressors, pumps, ventilating fans, burners, air conditioning control systems, air dryers, and air compressors

Replaces and or repairs sub-assembly units in small and large heating, ventilating and cooling systems
Performs major repairs on integrated building temperature control panels

Operates, repairs, and maintains ventilation systems, including thermostats and related pneumatic and electronic control devices

Cleans, oils, greases, and replaces worn parts on heating and ventilation equipment

Repairs, packs, and replaces valves, gauges, and fittings

Installs, repairs, and/or maintains electrical receptacles, switches, controls and lighting system

Installs and/or modifies power distribution and circuit breaker systems

Maintains and repairs automatic door locking systems, air compressors, time clocks, electronic security alarm systems, electronic gas dispensing systems and a variety of other mechanical/electrical equipment and systems

Maintains and repairs power distribution systems and transformers

Maintains and makes electrical repairs to welders, fluorescent fixtures, photo cells and emergency lighting units and signs

Upgrades electrical systems to meet new or existing code requirements and standards

Installs and makes electrical repairs to welders, fluorescent fixtures, photo cells and emergency lighting units and signs

Upgrades electrical systems to meet new or existing code requirements and standards

Installs and makes routine repairs to electrical wiring, switches, outlets, fixtures, and motors

Lubricates, oils, adjusts, cleans, and monitors a variety of mechanical equipment including motors and pumps

Makes routine and emergency repairs and adjustments to plumbing equipment including pipes, washers, and gaskets, faucets, valves, and HVAC water chemical treatment equipment

Installs, repairs, and maintains locking mechanisms

Orders parts, supplies, and equipment and maintains inventory

Prepares cost estimates for assigned project to include time, labor, parts, supplies, and equipment upon request

Maintains a variety of maintenance records and logs including completed work, inventory, equipment use, maintenance schedules etc. and prepares reports

Directs and monitors the work of others in a lead capacity

Recommends changes in procedures, methods, and/or scheduling of preventive maintenance work

Performs related duties as required.

EMPLOYMENT STANDARDS

Possession of:

A valid Class C Driver's License and a driving record that meets the standards of the County Office of Education.

Within 60 days of employment, employee must obtain the Environmental Protection Agency's required certification for handling refrigerants and related supplies and equipment.

Knowledge of:

Mechanical principles of heating, ventilation and air conditioning

Proper methods, procedures, tools and equipment used in the heating, ventilating, and air conditioning equipment as well as plumbing, mechanical, and electrical trades

Safety rules and regulations applied to the plumbing/mechanical/electrical trades

General maintenance, operations, procedures, and techniques for a variety of electrical, mechanical, and plumbing equipment systems and facilities

Safe use and operation of the tools and equipment used in the testing, maintenance and repair of electrical, mechanical and plumbing equipment, systems, and facilities

Preventive maintenance and efficient energy usage principles and practices

Ability to:

Provide lead direction over maintenance mechanics in HVAC and electrical work

Quickly and effectively diagnose basic maintenance and repair problems and take appropriate action to resolve the same

Disassemble and overhaul large centrifugal and reciprocating refrigeration compressors

Safely use and operate a variety of hand tools, power tools and equipment used in facility and equipment maintenance

Operate, repair, and maintain a variety of complex electrical/plumbing/mechanical systems and equipment including heating ventilation, and air conditioning systems, air compressors, security alarm systems, switches, lighting systems, security systems and fire alarm equipment

Prepare accurate cost and materials estimates for assigned projects

Read and interpret blueprints, schematics, and diagrams

Maintain and update a variety of maintenance and repair records and logs

Perform mathematical calculations using addition, subtraction, multiplication, and division

Communicate effectively in both oral and written form

Meet the physical requirements necessary to safely and effectively perform the required duties

Maintain work pace appropriate to given workload

Establish and maintain effective work relationships with those contacted in the performance of required duties.

EDUCATION AND EXPERIENCE

Generally, the required knowledge and abilities will have been acquired during sufficient experience to acquire journey-level status as an HVAC mechanic plus two years experience beyond attainment of HVAC journey level status.

BARGAINING UNIT: Operations Support Services (OSS) Unit

WORK ENVIRONMENT: Indoor and outdoor work environment; subject to noise from equipment operation; regular exposure to fumes, dust, dirt, oil/grease; subject to driving a vehicle to conduct work.

PHYSICAL DEMANDS: Dexterity of hands and fingers to operate a variety of specialized equipment and tools; seeing to observe needed and completed repairs; climbing ladders and working from heights; reaching overhead and horizontally; standing for extended periods of time; walking over rough or uneven surfaces; lifting heavy objects weighing up to 100 pounds; bending at the waist; kneeling or crouching.

HAZARDS: Vapors from paints and solvents; working in a cramped or restrictive work chamber; working with power saws and flying debris; working in heights on ladders or scaffolding; working with electrical power supply.

Personnel Commission Approval: 04/27/93

Revised: 01/24/95; 01/27/05