

CITY OF SALEM
REFRIGERATION TECHNICIAN

00606

NATURE OF WORK

This is responsible technical refrigeration maintenance and repair of commercial and domestic refrigeration and heating equipment and air conditioning systems in a variety of City facilities.

Work involves technical preventive and routine maintenance and repair and occasional installation of refrigeration components, heating or ventilation equipment and may include pressurized boiler maintenance. Work involves receipt of assignments via work orders, through regular equipment maintenance inspections, and special assignment. Work is reviewed by the supervisor while in progress or upon completion for professional workmanship and timeliness. This is not a supervisory classification, however this classification is expected to routinely lead others in maintenance assignments and assist in the training of other personnel.

This classification differs from the General Services Maintenance Technician by the required technical knowledge and credentials in refrigeration and HVAC systems. This classification differs from that of the Plant Maintenance Supervisor by the absence of full supervisory authority over the plant maintenance services of the City.

ILLUSTRATIVE EXAMPLES OF WORK

(Any single position of a class will not usually involve all of the essential duties listed, and many positions will involve essential duties which are not listed.)

Installs, maintains and repairs commercial refrigeration, freezers, air conditioners; heating and ventilating equipment, cooling tower systems, steam and hot water heat units, pneumatic and electrical controls; also pumps, fans, belts, filters, valves (water and steam), electric motors, air compressors. Calibrates thermostats, control settings, and HVAC equipment, tests coils, valves, and connections to assure system is leakproof and properly adjusted, and charges with refrigerant, adjusts and installs expansion valves, and secures tower systems for winter, cleans strainers and add chemical treatments.

Maintains chillers including shutting down cooling towers in fall and draining all systems, cleans and services chiller tube bundles and

condensers, check and replaces tubing as necessary, takes apart and cleans all water strainers and repairs or replaces, flushes each tower with water, checks compressors, cleans and repairs if necessary, checks and repairs all other parts of system, fills system with water, checks pumps and fans, takes oil samples adds oil when necessary, takes water samples for condensing and chilled water, adds chemicals as required.

Maintains pressurized boilers performing daily preventative maintenance checking valves, pressure gauges, ignitors, fans, belts, pulleys and lubrication points, , checks controls, breakers, contactors, checks boiler bands, sequence, performs overhauls as necessary, checks tubing for corrosion/denigration, checks water quality, maintains timers, and sequencing of pumps.

Installs, calibrates, tests, and repairs electronic control devices at various city facilities for centralized monitoring of facility operations and the collection of field data for computerization. May enter collected data into personal computer. After experience is gained, identifies unusual readings from energy management system and reports significant or unusual readings to supervisor. Cleans, inventories and maintains specialized maintenance tools and equipment parts and supplies.

Assists in the maintenance of municipal buildings, structures, and grounds. Directs other maintenance personnel in the maintenance of the heating, boiler repairs or overhauls, ventilation, and air conditioning systems of the City facilities. Maintains appropriate logs according to EPA and City standards, service records, schematics, time sheets, purchase documents and other related records.

Provides work direction to others as required.

Performs other related work as required.

WORK QUALIFICATIONS

Considerable experience in facility refrigeration systems, air conditioning maintenance and repair and HVAC related systems of facilities or mechanical equipment systems; graduation from high school or trade school, supplemented by the completion of technical courses in heating, ventilating, air conditioning systems, pump repair, and basic electricity\electronics, or related subjects to the position being filled or any equivalent combination of experience and

training which provides the following knowledges, skills, and abilities:

Considerable knowledge of the methods, materials, and tools used in the repair and maintenance of a refrigeration units, chillers, air conditioners, including modern operational control systems, electrical/electronic motor controls, mechanical maintenance and repair of industrial pumps, motors, and valve systems used in the repair and maintenance of a modern building complex HVAC system.

Considerable knowledge of the occupational hazards, EPA Standards, and proper safety precautions of the work, such as tagging procedures.

Considerable knowledge of hydraulics, pneumatics, pressurized steam systems, including principles of operation of a variety of pumps and centrifugal chillers, boilers, including principal operation of a variety of pumps and flow monitoring devices and factors affecting their performance.

Knowledge of modern office practices and procedures and contemporary office equipment.

Skill in the use of a keyboard, computer, and calculator.

Considerable ability to operate and use the testing equipment and controls installed for the proper functioning of the systems including recovery and containment of a variety of refrigerants.

Considerable ability to learn the characteristics and detailed specifications of the systems of the building complex.

Considerable ability to read and interpret blueprints, schematics, control systems diagrams and manufacturer's manuals.

Ability to recognize and diagnose malfunctioning equipment and related controls.

Ability to obtain an Oregon Limited Maintenance Electrical License within six month's of appointment if required by the nature of the assigned duties.

Possession of a Type III EPA Refrigeration certification within three months of appointment.

Ability to perform general building maintenance duties.

REFRIGERATION TECHNICIAN (Continued.)

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Possession of a valid Oregon Class C license and the ability to meet City driving standards.

Work involved moving from on location to another several times a day, evening and weekend work. Work involves field and limited office settings. Field conditions require work in a variety of weather conditions, call back evening and weekend work, working at heights and underground confined-space locations, exposure fumes and chemicals with safety precautions. Physical strength and agility sufficient to climb, bend, twist, and sufficient flexibility and dexterity to move around pumps, motors and control systems to complete task requirements. Ability to distinguish different colors of wiring, and record gauge readings. Work involves frequent interruptions, some public contact. Office work involves some writing and utilizing modern office equipment including personal computers, drawing diagrams, occasional phone contact with suppliers, responding to alarms and monitoring equipment readings.

Work also requires familiarity with a computerized energy management system including keyboard skills, viewing computer screens and printed reports for operational trends. Work also requires ability to record a variety of information in a field setting.

P e r s o n n e l

Director
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jobspec.606