



Office of Human Resources
HVAC Mechanic II - CJ3316
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General Statement of Duties

Performs specialized journey level work in the maintenance, repair, and installation of complex, large, and/or multi-facility HVAC equipment in city facilities and requiring journey level certification in a skilled trades area such as heating and ventilating, air conditioning and refrigeration, stationary engineering, steam fitting, and/or steam and hot water.

Distinguishing Characteristics

This class is distinguished from other trades areas by the specialty of the work and minimum qualifications. This class is part of the HVAC trades job family with increasing responsibility in performing HVAC work on city facilities and requiring certification issued by the City and County of Denver to perform the work. This class is part of a trades class series. All levels are not required to be used within any one agency or department and assignment of a classification depends on the duties and responsibilities of the position. In addition to increasing levels of experience required at each level, Level I trade classifications perform journey/full performance level work in the assigned trade area and comprises a majority of positions. Level II trades classifications perform specialized and expert level journey work in assigned trades area, represents the agency/department on large and complex projects, and/or may have necessary licensure/certification and are required to pull building permits. Generally, there are less positions at this level than at level I. Finally, Lead Level performs permanently assigned lead work over lower level staff and performs the duties of Level I or Level II. There should be few positions assigned to this classification.

Essential Duties

Installs, maintains, and repairs specialized or complex HVAC equipment and machinery including parts fabrication. Inspects facilities and equipment to determine needs as permitted by the appropriate HVAC certificate. Diagnoses, troubleshoots, and inspects electrical, electronic, and mechanical systems for faults for HVAC systems.

Operates, maintains, and repairs high/low pressure steam or hot water boilers, pumping unit vacuum pumps, boiler feed pumps, and auxiliary equipment.

Organizes and participates in complex projects and serves as the HVAC subject matter expert on projects. Provides expertise in the planning and coordination of the installation, maintenance, and repair work with other trades areas.

Operates, maintains, replaces, and repairs commercial or industrial refrigeration and air conditioning systems, controls, and related equipment.

Programs and updates automatic building system controls.

Installs, replaces, and repairs forced air heating and duct work.

Prepares working sketches and works from blueprints.

Assists in the maintenance and repair work in a variety of other skilled trades areas.

Operates and maintains tools and equipment common to various skilled trades.

Performs general plant and building maintenance repair. Prepare preventative maintenance checklists for equipment repair and maintenance. Assists with maintenance planning for short- and long-term equipment needs.

Maintains records and prepares reports; and, estimates materials, labor, and equipment costs.

Observes all common safety practices.

By position, may be required to be on-call to address emergent needs.

By position, participates in snow removal duties.

By position, responds to after hours calls or emergency calls outside of normal scheduled or business hours.

Performs other related duties as assigned.

Employees may be re-deployed to work in other capacities in their own agencies or in other City agencies to support core functions of the City during a City-wide emergency declared by the Mayor.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

Competencies

Mathematical Reasoning – Understanding of basic math that will be used on the job including counting, adding, subtracting, and multiplying.

Technical Competence – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job; works with, understands, and evaluates technical information related to the job; advises others on technical issues.

Oral Communication - Expresses information to individuals or groups effectively; taking into account the audience and nature of the information; makes clear and convincing oral presentations; listens to others, attends to nonverbal cues and responds appropriately.

Reading – Understands and interprets written material, including technical materials, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations.

Technical Problem Solving – Troubleshoots, diagnoses, analyzes, and identifies systems malfunctions to determine the source and cause of the problem.

Written Communication – Composes, reviews, edits, and issues written materials for diverse audiences and communicates purpose in a succinct and organized manner that is appropriate for context, time, and place.

Knowledge & Skills

Knowledge of principles and methods for operating industrial equipment.

Knowledge of materials, methods, and the appropriate tools to construct objects, structures, and buildings.

Knowledge of machines and tools, including their designs, installation, uses, repair, and maintenance.

Knowledge of developing, producing, understanding, and using plans, blueprints, models, and maps, including the use of tools and instruments to produce precision technical drawings.

Knowledge of electronic theory, circuits, components, and material properties (excluding computers).

Knowledge of safety hazards and necessary safety precautions sufficient to be able to establish a safe work environment for self and others.

Level of Supervision Exercised

By position, performs lead work.

Education Requirement

Graduation from high school or the possession of a GED, HiSET or TASC Certificate.

Experience Requirement

Two (2) years of professional journey level HVAC Experience.

Education & Experience Equivalency

A combination of appropriate education and experience may be substituted for the minimum education and experience requirements.

Licensure & Certification

This job requires driving. Requires a valid Driver's License at the time of application.

By position, requires a valid Commercial Driver's License (CDL "B") with appropriate endorsements by the end of probation.

Possession of Refrigeration Operator, CFC (universal EPA), Heating and Ventilating Journeyman, Refrigeration Journeyman or Stationary Engineer certificates issued by the City and County of Denver by the end of the probationary period.

By position, may require more than one certification.

Licenses and certifications must be kept current as a condition of employment.

Working Environment

Handles emergency or crisis situations.

Personal Safety: aware of surroundings, people, and events.

Potential exposure to cold temperature, cold enough to cause bodily discomfort.

Potential exposure to cold weather conditions (indoor/outdoor).

Potential exposure to conditions that affect the skin or respiratory system.

Potential exposure to extreme temperature changes.

Potential exposure to hazardous conditions where there is a danger to life, body, and/or health.

Potential exposure to hazards from electro/mechanical/power equipment.

Potential exposure to hazards of steam and heat.

Potential exposure to heat temperatures, hot enough to cause bodily discomfort.

Potential exposure to hot and humid work environment.

Potential exposure to odorous chemicals.

Potential exposure to the risk of blood borne diseases.

Potential exposure to temperature changes: variations in temperature from hot too cold.

Pressure due to multiple calls and inquiries.

Subject to electrical and radiant energy hazards.

Subject to precarious or high locations.

Subject to pressure for multiple calls, inquiries, and interruptions.

Subject to varying and unpredictable situations.

Temperature Changes: variations in temperature from hot too cold.

Temperature Changes: variations in temperatures from hot too cold when works in field.

Works in confined, uncomfortable or awkward locations.

Works in precarious or high locations.

Level of Physical Demand

3-Medium (20-50 lbs.)

Physical Demands

(Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs).

Agility: Ability to move quickly and easily.

Balancing: Maintaining equilibrium.

Carrying: Transporting or moving an object.

Climbing: Ascending or descending an object or ladder.

Color vision: Ability to distinguish and identify different colors.

Crawling: Moving about in a low or crouched position.

Crouching: Positioning body downward and forward.

Depth Perception: Ability to judge distances and space relationships.

Eye/Hand/Foot Coordination: Performing work through using two or more body parts or other devices.

Feeling: Perceiving attributes of objects by means of skin receptors, communication, or otherwise.

Field of Vision: Ability to sharply detect or perceive objects peripherally.

Fine Dexterity: Sufficient coordination to operate a vehicle and manipulate objects.

Fingering: Picking and pinching, through use of fingers or otherwise.

Handling: Seizing, holding, grasping, through use of hands, fingers, or other means.

Hazards: Conditions where there is danger to life, body and/or health.

Hearing: Perceiving and comprehending the nature and direction of sounds.

Hearing/Talking: Perceiving and comprehending the nature and direction of sounds/ability to communicate ideas.

Hiking: Moving about on uneven surfaces, and at high altitude.

Jogging: Ability to transport oneself over a two-mile distance at an efficient speed.

Kneeling: Assuming a lowered position.

Lifting: Moving objects weighing no more than 50 pounds from one level to another.

Neck Flexion: Perceiving objects located above or below.

Oral Comprehension: Ability to discern the meaning of oral speech.

Physical Strength: Exerts force to transport objects of 50 pounds or more.

Pulling: Exerting force upon an object so that it is moving to the person.

Pushing: Exerting force upon on object so that it moves away from the person.

Reaching: Extending the hands and arms or other device in any direction.

Repetitive motions: Making frequent or continuous movements.

Running: Quickly traverse a distance of over 50 yards.

Running: Quickly traverse a distance of under 50 yards.

Running: Ability to quickly pursue an animal for 60 seconds.

Sitting: Remaining in a stationary position.

Stamina: Ability to work over long periods of time without tiring.

Standing: Remaining in a stationary position.

Stooping: Positioning oneself low to the ground.

Talking: Communicating ideas or exchanging information.

Vision: Ability to perceive animal behavior, comprehend signs, and detect color.

Vision Far Acuity: Ability to perceive or detect objects clearly at 20 feet or more.

Vision Near Acuity: Ability to perceive or detect objects at 20 inches or less.

Walking: Ability to move or traverse from one location to another.

Written Comprehension: Ability to discern the meaning of written words.

Background Check Requirement

Criminal Check
Employment Verification
Motor Vehicle Record
License/Certification

Assessment Requirement

None

Probation Period

Six (6) months.

Class Detail

Pay Grade: NE-16

FLSA Code: N

Established Date: 7/4/2021

Established By: BM

Revised Date: 4/25/2023

Revised By: GS

Class History: Changed Experience Requirements to match Electrician II and Plumber II.