



Office of Human Resources
Building Engineer - CJ2732
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General Statement of Duties

Performs full performance technical level work in the daily operation of automated and mechanical environmental control systems, monitoring power supply systems, and performs general building and facility maintenance and repairs.

Distinguishing Characteristics

This class is distinguished from the Lead Building Engineer class that performs permanently assigned lead work. It is also distinguished from other single-trades classes such as HVAC Mechanic, Plumber and Electrician by broader responsibilities along with experience with Building Automation Systems (BAS).

Level of Supervision Exercised

None

Essential Duties

Maintains and operates automated and mechanical environmental control systems, which includes monitoring and programming master controls, calibrating and coordinating sequencing of controls, overseeing and monitoring power supply systems, troubleshooting and diagnosing systems errors, and making corrections in order to maintain building and facility temperatures and environmental conditions.

Maintains, operates, and repairs building and facility equipment related to environmental control systems, which includes electrical and mechanical components, plumbing and sewage systems, heating and air conditioning systems, ventilation and air handling systems, cold and hot water systems, electrical and fuel operated generators, which includes fire protection and detection systems.

Performs routine preventative maintenance based on operating procedures and regularly scheduled maintenance activities of equipment, and regularly inspects facilities, buildings, and grounds for unsafe or malfunctioning systems and conditions.

Assist other trades personnel in the maintenance and repair of building and facility infrastructure and equipment, which includes the installation and modification of equipment.

Plans and coordinates the maintenance and installation of major building and facility equipment repairs and related activities within a variety of specific trades areas, which includes the evaluation and recommendation of service upgrades.

Responds to building and facility tenant complaints with regard to safety issues and environmental control conditions, which includes following up on work orders, and prioritizing service calls.

Assists in coordinating maintenance efforts with outside contractors and technicians with regard to contracted service agreements.

Provides input to supervisors and managers responsible for planning and controlling annual budgets.

Orders parts and supplies as required, and maintains stock and inventory control.

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

Maintains records and prepares reports, which includes estimating materials, labor, and equipment costs.

Adheres to and observes all common safety practices and operating procedures.

By position, performs snow removal duties.

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

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Performs other related duties as assigned.

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

Customer Service - Works with customers to assess needs, provides assistance, resolves problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

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 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.

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 engineering concepts, principles, and practices, and of equipment, tools, mechanical devices, and their uses to produce motion, light, power, technology, and other applications.

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 electrical equipment, components, instruments, and burglar and fire alarm systems including installation, testing, uses, repair, and maintenance.

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

Education Requirement

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

Experience Requirement

Three (3) years of experience in building operations, engineering and equipment and systems maintenance including experience with Building Automation Systems (BAS).

Education & Experience Equivalency

Completion of College or Technical School coursework in Building Operator Program, Engineering Technical Training, or a professional designation in facilities management may be substituted for one year of the required experience.

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.

Requires either a valid journey certificate of qualification as required in trades specialty issued by the City and County of Denver or a valid journey license issued by the State of Colorado by the end of probationary period.

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

Working Environment

Atmospheric Conditions: conditions that affect the skin, eyes or respiratory system.
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 dust
Potential exposure to extreme temperature changes
Potential exposure to hazardous anesthetic agents, body fluids, and bio-wastes
Potential exposure to hazardous conditions where there is a danger to life, body, and/or health
Potential exposure to hazardous/toxic chemicals
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 humid conditions with high moisture content to cause bodily reactions
Potential exposure to infection from disease-bearing specimens.
Potential exposure to infections and contagious diseases
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
Potential exposure to toxic chemicals.
Potential exposure to unpleasant elements (accidents, injuries, and illness).
Extreme cold conditions
Handles emergency or crisis situations

Noise sufficient to cause distraction or possible hearing loss
 Personal Safety: aware of surroundings, people, and events
 Pressure due to multiple calls and inquiries
 Subject to burns and cuts
 Subject to electrical and radiant energy hazards
 Subject to hazards of flammable or explosive gases
 Subject to injury from moving parts of equipment or vehicles
 Subject to precarious or high locations
 Subject to pressure for multiple calls, inquiries, and interruptions
 Subject to varying and unpredictable situations
 Subject to vibrations and strain on the body to cause bodily harm if endured daily
 Temperature Changes: variations in temperature from hot too cold.
 Temperature Changes: variations in temperatures from hot too cold when works in field
 Wet: frequent contact with water, liquid, chemicals, or sanitary sewage
 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: bends, stretches, twists, or reaches out with the body, arms or legs.
 Balancing: maintaining body equilibrium to prevent falling over.
 Carrying: transporting an object, usually by hand, arm, or shoulder.
 Climbing: ascending or descending objects usually with hands/feet.
 Color vision: ability to distinguish and identify different colors.
 Crawling: moving about on hands and knees or hands and feet.
 Crouching: bending body downward and forward by bending legs.
 Depth Perception: ability to judge distances and space relationships.
 Eye/Hand/Foot Coordination: performing work through the use of two or more.
 Feeling: perceiving attributes of objects by means of skin receptors.
 Feeling: perceiving attributes of objects by means of spoken word.
 Field of Vision: ability to adjust vision to bring objects into focus.
 Field of Vision: ability to see peripherally.
 Fine Dexterity: coordinator eye-hand to operate a vehicle, reach, hold, grasp and turn objects
 Fingering: picking, pinching, or otherwise working with fingers.
 Handling: seizing, holding, grasping, or otherwise working with hand(s).
 Handling: seizing, holding, grasping, or otherwise working with fingers.
 Hazards: conditions where there is danger to life, body and/or health.
 Hearing/Talking: hear and determine direction of sound.
 Hearing: perceiving the nature of sound by the ear.
 Kneeling: bending legs to come to rest on one or both knees.
 Lifting: raising or lowering objects weighing no more than 50 pounds, from one level to another.
 Mathematical reasoning:
 Memorization:
 Mental Demands: mathematical reasoning, memorization, oral comprehension, spatial orientation, and written comprehension.
 Neck Flexion: moving neck upward/downward.
 Oral comprehension:

Physical Strength: exerts maximum muscle force to lift, push, pull or carrying objects and performs laboring work.

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

Pushing: exerting force upon an object so that it is moving to the person.

Reaching: extending the hand(s) and arms(s) in any direction.

Repetitive motions: making frequent movements with a part of the body.

Sitting: remaining in the normal seated position.

Stamina: exerts oneself physically over long periods of time without tiring. (which may include performing repetitive tasks such as hammering or lifting objects).

Standing: remaining on one's feet in an upward position.

Stooping: bending the body by bending the spine at the waist.

Talking: expressing or exchanging ideas by means of spoken words.

Vision Far Acuity: ability to see clearly at 20 feet or more.

Vision Near Acuity: ability to see clearly at 20 inches or less.

Walking: moving about on foot on uneven surfaces.

Walking: moving about on foot.

Background Check Requirement

Criminal Check

Employment Verification

By position, Motor Vehicle Record

Assessment Requirement

None

Probation Period

Six (6) months.

Class Detail

Pay Grade: J-620

FLSA Code: N

Established Date: 9/21/2018

Established By: LS

Revised Date:

Revised By:

Class History: