DENVER
THE MILE HIGH CITY

Office of Human Resources
Airport Central Utility Plant Technician - CJ3575

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General Statement of Duties

Performs entry-level duties in the maintenance and support of Denver International Airport's Central Utility Plant (CUP) while receiving training in the operation, monitoring and routine maintenance of hydronic systems, boilers, chillers, cooling towers, pumps, heat exchangers, air handlers, air compressors, variable frequency drive and other mechanical equipment. Working under the guidance of Airport Stationary Engineers and skilled trades staff, supporting day-to-day operations, preventive maintenance, and minor repairs.

Distinguishing Characteristics

This class performs entry level maintenance tasks assisting the CUP team in daily operations while receiving on the job training. It is distinguished from the Stationary Engineer series which requires a license or EPA certification and focuses on facility upkeep, tool/equipment organization, basic maintenance support, and non-technical responsibilities.

Essential Duties

Assists with the day-to-day operation and maintenance of the Central Utility Plant, including tasks related to the upkeep of boilers, chillers, cooling towers, pumps, air handlers, compressors, heat exchangers, and related infrastructure.

Performs routine preventive maintenance tasks such as checking gauges, fluid levels, motors, belts, and filters; lubricating equipment; and reporting abnormal conditions to supervisors or engineers.

Performs basic diagnostic and troubleshooting support to identify equipment issues; assists with minor mechanical repairs under the direction of senior staff.

Supports specialized installations, maintenance, and light fabrication related to facility infrastructure and utility systems under the direction of engineers or trades personnel.

Examines, tests, and assists in the repair of CUP machinery, mechanical equipment, and structural components to ensure optimal operation and prevent breakdowns.

Participates in inspections of equipment, mechanical rooms, and plant infrastructure to help identify maintenance needs or safety issues. Maintains basic records and reports work completed or issues identified.

Assists with the coordination and preparation of work areas for repair, installation, or construction-related activities, including staging equipment, tools, and materials.

Operates and maintains lightweight equipment, vehicles, and power tools necessary for maintenance and support duties; may assist with the operation of heavier machinery under supervision.

Uses basic schematics, blueprints, or sketches to support installation or repair work; learns to interpret technical documents relevant to CUP systems and components.

Collaborates with journey-level trades professionals (electricians, HVAC techs, plumbers, etc.) to assist in the repair and maintenance of CUP systems and infrastructure.

Supports emergency and high-priority repairs by assisting with incident response, equipment isolation, area access, and tool readiness.

Participates in on-the-job training and cross-training to develop the skills required for future advancement into skilled utility operations or trades roles.

Maintains a clean, safe, and organized work area; ensures tools, supplies, and parts are stored properly; adheres to all facility safety and operational procedures.

Follows all airport safety regulations, including use of personal protective equipment (PPE), lockout/tagout procedures, and hazard communication protocols.

Assists in snow removal, groundskeeping, and other seasonal facility support tasks associated with the CUP and surrounding areas.

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

Technical Competence – Demonstrates a growing understanding of Central Utility Plant systems and equipment. Learns to operate, inspect, and assist in the maintenance of mechanical systems such as boilers, chillers, pumps, and air handling units. Applies technical knowledge gained through on-the-job training and formal instruction to support plant operations effectively.

Problem Solving – Recognizes and identifies routine mechanical and operational issues. Gathers and evaluates information about troubleshooting problems with guidance from senior staff and recommends appropriate actions to support timely repairs and maintenance.

Arithmetic – Accurately performs calculations using whole numbers, fractions, decimals, and percentages. Arithmetic applies to measure, estimate, and record data related to maintenance, fluid levels, temperatures, pressures, and part dimensions.

Oral Communication – Communicates clearly and professionally with team members, supervisors, and support personnel. Listens attentively, follows verbal instructions, and asks clarifying questions when needed. Conveys important information about equipment status, safety concerns, and work progress.

Written Communication – Maintains accurate and legible logs, inspection forms, and maintenance records. Documents activities, notes discrepancies, and contributes to shift handoff notes or incident reports using clear and organized written communication.

Reading – Reads and interprets standard operating procedures (SOPs), safety manuals, equipment labels, maintenance instructions, and technical diagrams. Applies written information to real-world maintenance and repair situations.

Attention to Detail – Carefully follows maintenance checklists, observes changes in equipment performance, and reports abnormalities. Takes pride in doing tasks accurately and maintaining high-quality standards.

Safety Awareness – Maintains situational awareness of hazards in an industrial environment. Follows safety protocols, uses personal protective equipment (PPE), and ensures proper handling of tools, equipment, and chemicals.

Teamwork and Collaboration – Works cooperatively with engineers, trades professionals, and peers. Supports group objectives and contributes positively to a team environment while respecting roles and responsibilities.
Adaptability and Learning Agility – Embraces opportunities to learn and develop new skills, especially related to plant systems, tools, and emergency procedures. Responds effectively to changes in assignments, equipment, or processes.

Customer Service Orientation – Understands that internal stakeholders (e.g., airport operations teams) depend on CUP reliability. Acts with professionalism when supporting service requests and maintaining critical infrastructure.

Knowledge & Skills

Mechanical Systems Knowledge – Basic understanding of the function and maintenance of mechanical systems in a Central Utility Plant, including boilers, chillers, cooling towers, pumps, compressors, and air handling units.

Tools and Equipment – Familiarity with common hand and power tools used for mechanical, electrical, and plumbing maintenance tasks. Demonstrates proper tool usage, care, and storage.

Machines and Tools – Understands the basic principles of how machines and tools are designed, installed, and used. Assists in repairs and maintenance tasks under supervision.

Construction and Carpentry Basics – Knowledge of basic materials, methods, and tools used in the construction, assembly, installation, or repair of facility structures and wooden components.
Pipe Systems and Plumbing Support – Awareness of how to support the installation and maintenance of pipelines and plumbing systems, including those for water, steam, air, and chemicals. Learns to use tools specific to piping tasks.

Electrical Systems Awareness – Developing knowledge of electrical equipment, components, and wiring systems commonly used in CUP facilities. Ability to read and interpret basic electrical schematics and blueprints.

Painting and Surface Finishing – Basic skills in applying protective coatings such as paint on various facility surfaces (e.g., metal, drywall, wood) to support corrosion prevention and facility upkeep.

Metal Fabrication and Repair – Assists with or observes fabrication and repair of metal components or fixtures using hand tools, welding equipment, or metal-forming tools.

Hazardous Materials Handling – Understands the basic properties, safe handling, storage, and disposal procedures for hazardous materials used in plant operations, including oils, refrigerants, solvents, and cleaning agents.

Vehicle and Equipment Operations – Knowledge of safety procedures for operating light-duty vehicles and motorized maintenance equipment. Assists with basic inspections and maintenance of plant vehicles and carts.

Motor Vehicle Systems – Basic understanding of motor vehicle engines and systems, particularly those used in plant vehicles, utility carts, or emergency generators. Supports inspections and simple maintenance tasks.

Blueprint and Schematic Reading – Ability to interpret basic mechanical and electrical diagrams to support equipment installation and maintenance.

SCADA/BAS Familiarity – Introduction to computerized building automation and plant monitoring systems. Understands how to observe screen data for temperature, pressure, flow rates, and alerts with supervision.

Safety Protocols and Emergency Procedures – Knowledge of CUP and airport safety standards, including lockout/tagout, confined space entry, hazard communication, PPE usage, and emergency response.

Level of Supervision Exercised

None

Education Requirement

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

Experience Requirement

One (1) year of general labor, facilities maintenance, custodial, or mechanical support experience.

Education & Experience Equivalency

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

Licensure & Certification

Requires a valid driver's license at the time of application.

Working Environment

Works in confined, uncomfortable or awkward locations.
Potential exposure to cold temperatures, cold enough to cause bodily discomfort.
Potential exposure to cold weather conditions (indoor/outdoor).
Potential exposure to hazards from electrical/mechanical/power equipment.
Potential exposure to hazards of steam and heat.
Potential exposure to heat temperatures, hot enough to cause bodily discomfort.
Subject to injury from moving parts of equipment or vehicles.
Subject to injury from moving parts or equipment.
Subject to long, irregular hours.
Potential exposure to temperature changes: variations in temperature from hot to cold.
Potential exposure to toxic chemicals.
Potential exposure to dust.
Potential exposure to extreme temperature changes.

Level of Physical Demand

3-Medium (20-50 lbs.) to 5-Very Heavy (100 lbs. or more)

Physical Demands

Climbing: Ascending or descending an object or ladder.
Color vision: Ability to distinguish and identify assorted colors.
Crouching: Positioning body downward and forward.
Exposure to noise and vibrations.
Fine Dexterity: Sufficient coordination to manipulate tools and equipment.
Kneeling: Assuming a lowered position.
Lifting: Moving objects weighing no more than 50 pounds from one level to another.
Reaching: Extending the hands and arms or other device in any direction.
Repetitive motions: Making frequent or continuous movements.
Working in tight, awkward positions for extended periods of time.
Talking: Communicating ideas or exchanging information.

Walking: Ability to move or traverse from one location to another.
Written Comprehension: Ability to discern the meaning of written words.
Occasional overtime or shift work to support 24/7 operations.

Background Check Requirement

Criminal Check
Employment Verification
Motor Vehicle Record

Assessment Requirement

None

Probation Period

Six (6) months.

Class Detail

Pay Grade: NE-15
FLSA Code: N
Established Date: 11/30/2025
Established By: MF
Revised Date:
Revised By:
Class History: New classification.