

Nothing in this job description restricts management's right to assign or reassign duties and responsibilities to this job at any time.

DUTIES Serves as HVAC Operator in Charge (OIC) in the Terminal Services Division of the Engineering and Maintenance Department of the Ronald Reagan Washington National Airport (DCA), Metropolitan Washington Airports Authority. Ensures the effective operation of systems for interior heating and air conditioning serving the terminals, parking garages, pedestrian bridges, and the Airports Authority Corporate Office Building (COB). Operates, conducts preventive maintenance on, assesses problems with, and performs quick-turnaround repairs to cooling (air conditioning and refrigeration), ventilation and auxiliary heating systems, subsystems, equipment and components serving these facilities. As assigned, also serves as air conditioning operator for south end of the Airport. Performs related functions.

Provides first response to cooling and ventilation problems and service emergencies in Terminals A, B, C, parking garages, and other structures. Assesses situation and takes or recommends immediate action. Determines which units and equipment can be taken out of service or adjusted to use less amperage for best comfort level to terminal users and least adverse impact on utility operations/equipment while problem is being resolved. Performs quick-turnaround repairs, such as realigning equipment mounts, adjusting and replacing valves and tubing, making temporary repairs to wiring and controls, and soldering, bending and cutting pipe and tubing.

In a major emergency, shuts down affected systems or equipment in a safe and systematic manner and restarts it after the emergency. Understands and adheres to established emergency procedures for operation of various systems, personnel notification, and building evacuation.

Operates and monitors computerized building automated monitoring and control systems which together are referred to as the Building Automation System (BAS). Acts as the terminal building "facility information coordinator" in close coordination with the Work Order Desk, and assists Supervisor in coordinating the activities of the Terminal Services Center (TSC). (The automated systems monitored include the main terminal heating and cooling systems, the elevator, escalator and moving walkway monitoring systems, the automatic door monitoring system, the air quality monitoring system, the building lighting control system, and other related systems.)

Operates adjusting equipment. Checks temperature sensing points in various building areas by monitoring the BAS and controls to meet needs. Starts, regulates, and stops various items of air handling equipment, air conditioning compressors, and other related support equipment as required for load conditions; adjusts valves and resets temperature controls based on observations. Makes additional adjustments, as necessary, based on previous and present observations of instrument readings. Advises Supervisor and TSC when major malfunctions occur. Adjusts electronic controls and opens and closes dampers and valves, etc., with use of laptop and desktop computer. Makes rounds periodically to test and inspect equipment and perform related tasks.

Monitors and operates BAS. Adjusts operating parameters to optimize performance, efficiency, and comfort of the terminal building during normal operations and analyzes problems and troubleshoots possible causes during non-normal operations. Provides information to other

building operators, mechanics, electricians and craftsmen. Executes computer commands to open and or close valves, start and stop motors, change set points, etc., as needed. Interacts with operators, mechanics and technicians throughout the building, investigates problems and takes corrective actions, as needed.

Performs minor repairs including preventive maintenance. Aligns belts and pulleys on air handlers and exhaust fans; replaces or cleans filters on air handlers and air curtains, etc.; cleans strainers; inspects bearings; drains moisture from air compressors; replaces broken or worn drive belts, bearings, pulleys, fan blades, fuses, etc.; and lubricates fan motors, shaft bearings and moving parts. Performs related tasks.

In emergency situations takes or recommends action be taken according to the situation and established procedures. Notifies Supervisor of situation and action taken. Assists contractors, the Work Order Desk, or other Airports Authority personnel in locating Airports Authority employees within the building(s) by utilizing the base station radio and/or beeper system to relay messages. Monitors the radio and telephone and responds, as necessary, to requests for assistance, maintenance, the status of various vehicles, special tools, and the location of personnel. Records and delivers messages as requested. Accounts for, maintains, and checks in and out to authorized personnel, various items such as hand-held radios, flashlights, electric carts, lifts, special tools, keys, technical manuals, and blue prints. Supports the Airport Operations Duty Officer and public safety personnel in their work. Refers problems or complaints to the TSC Manager or Supervisor, as appropriate.

Performs routine housekeeping tasks, files documents, and keeps the BAS room neat and orderly. Keeps a reading file of various informational items of interest for the benefit of TSC personnel who need to be kept informed as directed by the TSC Manager. Maintains adequate administrative and other supplies required to keep the BAS running smoothly and continuously (e.g., checks facsimile machines, copiers, and printers on each shift to insure adequate supplies of paper and toner cartridges are on-hand, loaded, and ready for use).

Documents problems encountered on equipment and submits work order if problem requires more work or if parts must be ordered. Uses specifications, drawings, vendor data, etc., to help identify the source(s) of BAS malfunctions, identify possible solutions, suggest repairs and/or adjustments, and verify correction of the problem. Uses hand and power tools/equipment (wire cutters, shears, wrenches and drills) and specialized tools and equipment such as hammers, wrenches, pressure gauges, amp/volt/ohm meters, air-pressure gauges, soldering and brazing equipment, manometer, Simpson meter, and leak detector. Occasionally uses acetylene and oxygen torches, vacuum and acid pumps, pipe cutters and benders, and manometers.

Communicates and interacts effectively with internal and external business contacts including, but not limited to, other members of the unit/team, other Airports Authority employees (such as managers, supervisors, professionals, and support staff), tenants, airport users, and the general public.

Uses a computer and (a) modern office suite software for various applications such as, but not limited to, scheduling, communicating (email), word processing (light word processing only), and

data manipulation (databases and spreadsheets), (b) enterprise software for requisition items, time and attendance, and other functions, and (c) specialty systems/software used in the Division to control equipment and for tracking work requests.

Drives a pick-up truck, van or electric cart to/from/around work sites, landside and airside.

Performs other duties as assigned.

Critical features of this job are described under the headings below. They may be subject to change through reasonable accommodation or otherwise.

MINIMUM QUALIFICATIONS (MQs)

To be rated qualified for this job, an applicant must meet both of the MQs listed below at the time of vacancy announcement closure.

1. A high school diploma, or a Certificate of General Educational Development (GED), or an equivalent combination of education, experience and training.
2. Five years of progressively responsible experience (post high school) in the maintenance and repair of HVAC equipment and systems, which includes two years specializing in the operation, installation, test, diagnosis, maintenance, and repair of a range of HVAC equipment and systems (predominately commercial), such as, but not limited to, cooling (air conditioning and refrigeration), ventilation and auxiliary heating systems, subsystems, equipment and components including heating and cooling control systems, motors, pumps, suppression circuits, switches, and similar equipment. This includes knowledge of the theories, principles, requirements and standards of the HVAC trade.

A License as a Master HVAC Mechanic is evidence of five years of progressively responsible HVAC trade experience, but is not, by itself, evidence of the two years of specialized experience in the operation, testing, diagnosing, maintenance, and repair of a range of HVAC equipment and systems as specified.

3. Education, experience, or training indicating the ability to make decisions, take action, or direct the actions of others to maintain or restore service until relieved; and to perform related Operator-In-Charge functions.
4. EPA certification (Universal) or ability to obtain certification within 90 days from the date of the Final Offer Letter. A qualified candidate who is selected, but lacks certification, must obtain certification within 90 days of the date of the Final Offer Letter.

PREFERRED QUALIFICATIONS

The qualifications listed below (if any) are preferred and may be considered in the selection process, but they are not required to be rated qualified for this job.

1. A License as a Master HVAC Mechanic.
2. EPA certification (Universal) to service HVAC/Refrigeration Equipment.
3. Experience working safely in a trade on a busy airfield or in an equivalent work environment such as, but not limited to, working in a trade requiring prolonged concentration and attention to detail amid maritime or motor freight cargo loading/unloading or other types of near-constant movements/operations that require continuous situational awareness and alertness to continually changing circumstances and events.

KNOWLEDGE, SKILLS, ABILITIES, AND OTHER FACTORS (KSAOs)

The following KSAOs are required for successful performance of this job and are a basis for rating and ranking applicants who are found to meet the MQs. *Local, Federal, airport industry or Airports Authority specific bodies of knowledge listed below may be acquired on the job, typically; ability to rapidly acquire them is required at application/placement.*

1. Knowledge of cooling (air conditioning and refrigeration), ventilation and heating to operate, troubleshoot, and perform quick-turnaround repairs to systems, subsystems, equipment and components. This includes principles and conventions, such as the refrigeration cycle and heat transfer laws, equipment-specific knowledge, such as the pressure-temperature characteristics of different systems, and accepted trade practices, such as use of refrigerant tables and schematics and wiring diagrams to operate, troubleshoot, recognize operating deviations, make adjustments and/or repairs, and perform other functions.
2. Knowledge of the principles and operating characteristics of a building heating and air conditioning system using high temperature hot water and chilled water supply systems, circulating pumps and heat exchanger/air handling units to heat and cool buildings, conserve energy, recognize operating deviations, and correct them.
3. Knowledge of and skill in the use of semi-automated computer-based digital control systems such as BAS for heating/cooling systems to verify normal operating performance; adjust parameters, controls and set-points; and identify and isolate operational problems.
4. Skill in problem solving to select, organize, and logically process relevant information (verbal, numerical, or abstract) to solve a problem. This includes the ability to recognize subtle aspects of problems, identify relevant information, and make balanced recommendations and decisions. Examples include assessing the situation and taking or recommending action regarding which units and equipment can be taken out of service or adjusted to use less amperage for best comfort level to terminal users and least adverse impact on utility operations/equipment while problem is being resolved; then assisting contractors, the Work Order Desk, or other Airports Authority personnel in the performance of emergency work.
5. Knowledge of the layout of the heating and cooling areas, machine rooms, water, gas and sewer lines and related gauges, valves, and controls throughout the terminal complex to be

able to relate graphic depictions on the system computer monitors in the BAS Room to the HVAC distribution system throughout the terminal buildings, and assist repair personnel to locate and respond quickly and effectively to problems, service calls and emergencies.

6. Knowledge of Airport and terminal building priorities for service and emergency procedures to make, maintain or restore operational status or service until relieved.
7. Skill in using the tools of the trade, such as hammers, wrenches, pressure gauges, amp/volt/ohm meters, air-pressure gauges, soldering and brazing equipment, manometer, Simpson meter, and leak detector to operate, maintain, troubleshoot and repair HVAC equipment.
8. Skill in oral communication sufficient to exchange information with Supervisor, Airport Ops Duty Officer, Work Order Desk, service contractors, public safety personnel, airline, tenant and concessionaire customers, and other business contacts, especially concerning corrective action for emergency situations in the Terminal and Parking Garages.
9. Interpersonal skills to interact effectively with business contacts in a businesslike, customer service-oriented manner.
10. Skill in written communication to understand written information (including instructions, descriptions, and ideas) and to express such information in writing so that others will understand. Examples include reading technical-operational materials (such as technical manuals, maintenance schedules, and work orders) and administrative-programmatic materials (such as Airports Authority supply procedures), and writing briefly about similar types of matters, such as closing out work orders.
11. Skill in using a computer and (a) modern office suite software (such as MS Office) to plan, schedule, communicate, word process (light word processing only), prepare and develop reports, and perform research (Internet use, as in searching for performance information and keeping up with technology); (b) enterprise systems/software for requisitioning, time and attendance, and other functions; and (c) specialty systems/software used in Division to regulate/control HVAC systems and process work orders.
12. Knowledge of, and ability to apply, safety rules and procedures.

RESPONSIBILITY Is responsible for technical and practical decisions during the shift to help ensure a safe, efficient and continuous operation and monitoring of hot and chilled water systems for heating and cooling facilities according to procedures, instructions, and accepted trade practices. Work helps provide a healthy, comfortable environment for passengers and other airport customers and employees. Assists Work Order Desk in monitoring other systems, receiving, relaying and responding to information, systems statuses, questions, problems, complaints and requests for work in, or related to, the terminal facilities to ensure continuing operational status of elevators, escalators, moving walkways, automatic doors and other facility systems. Works under the direction of the Building Maintenance Trades Supervisor or the Manager, DCA Operations and Maintenance. When no supervisor is on duty, exercises

authority, within guidelines, to take or recommend actions needed to maintain or restore service, typically providing information to, and receiving assistance from, the Work Order Desk and Electrician Operators.

Takes action or relays information in response to trouble calls regarding utility and HVAC systems and other maintenance problems in the terminals and garages. Performs corrective actions at the BAS operator console and/or at the site of the equipment. Advises the Supervisor or Division Manager of irregularities or conflicts. The Supervisor reviews the work through logs, reports, spot checks, and other means.

EFFORT Sits at a desk or console and manipulates switches, dials, computer controls, or pointing devices but also moves throughout the Terminals and Garages to troubleshoot and repair equipment. Work requires moderate to heavy physical exertion (such as frequent, prolonged periods of exerting 20 to 40 pounds of force or continual exertion of force in the range of 10 to 20 pounds), and considerable mental attention (as in working in very close proximity to energized electro-mechanical HVAC equipment). Identifies potential problems by visible/audible symptoms (e.g., makes analysis and determines operational statuses by displays and read-outs of dials, screens, lights, and monitors). Exchanges work information by telephone and two-way radio. May be confronted with hard-to-reach and hard-to-see work situations that require standing, walking, stooping, kneeling, crouching, reaching, climbing or other positioning of self to access and work on HVAC and/or air conditioning equipment. May work in cramped positions and tight spaces. Lifts, pushes/pulls or otherwise moves into position items weighing up to 75 pounds (e.g., window units). Determines overheating equipment by excess heat given off and the effectiveness of repairs by the coolness of the air output. Makes diagnosis and determines effectiveness of repair by displays and read-outs of dials, gauges and monitors, e.g., pressure gauges. Distinguishes color-coded objects, e.g., water chemical testing materials. Operates vehicle based on judgment and traffic (this includes indoor electric vehicles being operated in either public or service areas of the terminals).

WORKING CONDITIONS Works mostly inside in an environment which is adequately lighted, ventilated and temperature controlled; however, occasionally does work outside in all types of weather and in both cases is exposed to dirt, dust, dampness, fumes, potentially hazardous materials, noise of compressors and jet aircraft, moving vehicles, and the possibility of electrical shocks, burns from chemicals and falls from ladders and roofs. Occasionally works in tunnels or similar spaces for short periods. Exercises established safety precautions and wears personal protective gear as appropriate. May sometimes be required to walk extended distances within the terminal(s) to deliver papers, keys or dispatch equipment or assist other technicians during critical situations. Is subject to time pressures of restoring operations of equipment or systems essential to Airport functions.

OTHER SIGNIFICANT JOB ASPECTS Is subject to rotating shifts, providing 24/7 coverage. Is subject to hold-over or recall on a 24-hour basis for essential services and emergencies such as snow removal. Must be EPA certified (Universal) to service HVAC equipment.