

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 Mechanic & HVAC Controls Group Supervisor (Group Supervisor) in the Utilities Division (Division) of the Engineering and Maintenance Department at Washington Dulles International Airport (IAD), Metropolitan Washington Airports Authority. Supervises HVAC Mechanics and HVAC Controls Technicians in maintaining, repairing, installing, and monitoring a wide range of integrated energy monitoring and temperature control systems, safety devices, chart recorders and similar instruments via a Siemens computerized Energy Management and Control System (EMCS) regulating IAD's central heating and cooling systems and related major equipment, including high temperature hot water generators and chilled water systems, low pressure boilers, steam boilers, electrical centrifuge chillers, Mycom rotary-screw compressors with ice harvesting evaporators, and special purpose equipment maintained by the Group. Performs related functions.

The Group Supervisor controls the work operations and supervises the employees of the Group by performing a full range of supervisory functions: planning of work, assignment and review of work, and administration. Primary emphasis is on accomplishment of daily operations, but responsibilities extend to mid- and long- term work planning for, and projects performed by, the Group. Performs related functions.

Planning of Work

Maintains awareness of the day-to-day status of work to be done on HVAC and associated building controls through review of various trouble reports from the Computerized Maintenance Management System (CMMS), Siemens building control system, EMCS Apogee, reports from Airport Operations, review of daily logs of ongoing work, and discussions with the HVAC Supervisor. Coordinates with the HVAC Supervisor and Shop Planner in planning periodic maintenance, short-, mid-, and long-range projects.

Determines the need for and ensures the supply of parts, materials and equipment for projects, including the ordering of rental items, by working with the HVAC Supervisor and Shop Planner. Coordinates work with contractors and other Airports Authority shops, as needed. Prepares labor and materials estimates for major repairs and projects; assists in estimating costs. Completes required purchase, material and stock-and-store requests.

Creates and maintains weekly or longer term personnel schedules to maximize the effective use of resources and minimize Group or equipment/system downtime. Establishes deadlines, priorities and schedules for subordinates on the basis of general work schedules, methods and policies established by higher levels of supervision/management. Reschedules work or changes assignments to meet critical deadlines or emergency needs, e.g., during power outages or equipment malfunctions.

Assignment and Review of Work

Assigns work orders for repairs, special projects and recurring preventive maintenance activities

based on the nature of the work and resources available. Reviews shift operation logs, e.g., trouble calls, and determines the need for follow-up. Explains work requirements and safety precautions and leads or assists subordinates on difficult work operations, as necessary. Reviews employee work in progress, on completion or through reports/logs, as appropriate.

May authorize changes in work plans, work assignments or work methods to reduce or control costs, accomplish the work more effectively or ensure timelines are met, customer service is improved or other outcomes are enhanced; however, coordinates with the HVAC Supervisor or higher echelons first when major changes in plans, assignments or methods are deemed necessary.

Performs routine inspections, e.g., inspects on-going work and assures there are no deficiencies in shop equipment and that proper procedures are used. Reviews work in progress and upon completion for usage of accepted trade practices and compliance with work orders and instructions, Virginia Uniform Statewide Building Code (VUSBC), Airports Authority Design Manual and Occupational Safety and Health (OSHA/VOSHA) rules, etc. Ensures acceptable quantity, quality, timeliness, customer service, etc., in fulfillment of work orders and all work activities of the Group.

Acts as the primary quality control inspector for all equipment serviced. Oversees work contracted out to ensure vendor compliance with quality, safety and other standards and requirements.

Administrative Actions

Explains or applies the basic features of established personnel programs such as equal employment opportunity (EEO); incentives and awards; merit promotion; and time, leave and overtime policies. Establishes performance management criteria with the HVAC Supervisor for individual subordinate employees as well as the Group as a whole and manages performance of subordinate employees. Recommends monetary and non-monetary awards, as appropriate. Informs HVAC Supervisor of complaints or preferences of employees or customers.

Approves or disapproves short term leave and daily overtime; makes recommendations to the HVAC Supervisor on long-term leave requests and special projects requiring overtime. Counsels employees on minor infractions of rules and recommends disciplinary action when appropriate. Develops schedules for overtime and training and finds replacements for employees on approved and emergency absences by such means as holding over employees from the previous shift or calling employees from the overtime list.

Reviews training records and assigns employees, as needed, to various classes. Ensures the development of Operators-in-Charge, journey level and sub-journey level subordinates, directly or through on-the-job assignments/training, by ensuring classroom training and application of other means; helps identify and justify specific training courses. May assign HVAC Mechanics or HVAC Controls Technicians to conduct on-the-job training for new employees at any level and with the introduction of new equipment or controls.

Actively participates in the selection of candidates for position vacancies in the Group; may assist in the selection process outside the Group, as requested.

Inspects work areas and other shop spaces for adherence to housekeeping and safety standards and requirements. Investigates accidents and mishaps from a supervisory perspective. Ensures the maintenance of technical manuals, code manuals, and safety and inspection logs pertaining to the Group.

Serves as the focal point for Group matters relating to the Computerized Maintenance Management System (CMMS), including ensuring all Group work and time performed are accurately captured on work orders (with correct cost center and project number, etc.) and that work orders are promptly closed out upon completion of work.

Participates in feasibility studies concerning new work programs and may recommend budget projections for additionally required employees, machines, and materials.

Other Work

Keeps abreast of the heating, ventilation and air conditioning (HVAC) trade and Airport issues that impact the work of the Group.

May participate in the review of contractor plans for development or modification of Airport air conditioning, heating, and ventilation systems. Assists in the development of specifications and standards for the Airport's ventilation and heating and air conditioning systems. Calculates heating and cooling load of rooms to determine the size of equipment to be installed.

Assists in justifying the purchase of new or replacement equipment, as pertains to the Group. May recommend work changes that affect the budget or technical quality.

Leads subordinates, as appropriate, in troubleshooting unusual problems with equipment or systems. May assist HVAC Mechanics or HVAC Controls Technicians in responding to emergency calls, troubleshooting and identifying problems, and directing repairs, e.g., redesigning pneumatic and electronic controls. Draws sketches and diagrams of completed systems. Consults with the Shop Planner on adjustments to preventive maintenance procedures and cycles. Performs inventory of tools and equipment.

Occasionally uses tools such as the EMCS diagnostic tool or other diagnostic tools, specifications, drawing, vendor data, etc., to identify sources of EMCS malfunctions, to formulate solutions and to make software and/or hardware adjustments needed to correct problems as well as screwdrivers, wrenches, pliers and drills, electrical testers, meters, air pressure gauges, manometers, spectrometers, hydrometers and Simpson meters to effect repairs.

Serves as HVAC Supervisor, as assigned, in that person's absence.

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), vendors/suppliers/tenants, airport users, and the general public.

Uses a computer and (a) modern office suite software (such as MS Office) to communicate (email), plan, schedule, word process (light word processing), and research (includes Internet use to search out new products and technologies and keep up with technology), (b) enterprise system/software for requisitioning, budgeting, time and attendance reporting, and other functions, and (c) specialty software/systems used in the Division such as CMMS and Siemens building control system (EMCS apogee).

Drives a pick-up truck, airside and landside, to check work in progress, make service calls, meet with other supervisors, etc.

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 all of the MQs listed below at the time of vacancy announcement closure.

1. A high school diploma, 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 installation, test, diagnosis, maintenance, and repair of a range of (predominately commercial) HVAC equipment and systems such as, but not limited to, heating, air conditioning and handling systems, and related equipment 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 testing, diagnosing, maintenance, and repair of a range of HVAC equipment and systems as specified.

3. 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.
4. Education, experience or training indicating the ability to perform successfully as a first level supervisor such as the ability to plan/assign/review work, deploy personnel, monitor

work operations, obtain effective results and perform a full array of supervisory personnel functions.

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 Airports Authority management functions, policies and procedures, including EEO principles and requirements, and knowledge of supervisory principles, altogether to manage the operations and programs of the unit/team and to perform supervisory functions.
2. Knowledge of the theories, principles, requirements and standards of heating and cooling control systems (the Siemens EMCS in particular) such as the heating/cooling transfer laws, calculation of airflow station, pressure-temperature switches, BTU meters, VFD systems and characteristics for different heating, cooling and ventilating systems to ensure the safe and efficient operation of the systems, assist in developing specifications and standards, evaluate the feasibility of new programs, and assist subordinates in the resolution of problems.
3. Knowledge of the tools, techniques and practices of the trade supervised to lead others in complex work and perform routine supervisory reviews of work in progress or upon completion, such as:

Full performance (journey) level knowledge of, and skill in, HVAC systems/controls/mechanics troubleshooting, repair, adjusting, maintenance, installation, and replacement. This includes but is not limited to:

Knowledge of electrical and electronic principles related to HVAC controls, programmable logic controllers (PLCs), and their functional characteristics when used

with mechanical or pneumatic components (i.e., signals from sensors to control panels which in turn communicate with actuators) to evaluate the operational status of such controls, make adjustments and repairs, and then test the repairs.

Knowledge of the Airport's EMCS Programming Computer Language and of computerized controls to enter codes and commands into computer in order to obtain information from components or to modify the software's operating parameters in order to change the automatic operation of components or the type of information monitored.

Knowledge of the operating characteristics of high temperature hot water generators, industrial chillers, pumps, air handlers, etc., and their relationship with variables such as temperatures of outside air, of a space, of air discharged from air handler and of chilled water to determine whether malfunctions are in the HVAC controls or equipment to adjust parameters for controlling indoor environment.

4. Skill in the use of the tools, techniques and practices of the trade supervised to lead others in complex work and perform routine supervisory reviews of work in progress or upon completion, such as:

Skill in using EMCS the diagnostic tools or other diagnostic tools, specifications, drawing, vendor data, etc., to identify sources of EMCS malfunctions, to formulate solutions and to make software and/or hardware adjustments

Skill in using technical manuals, schematics, materials, and other equipment and guides in journey level HVAC work such as thermometers, manometers, volt-ohm meters, amp probes, wire strippers, squeeze bulbs, dead-weight pressure testers, BTU counters, gas meters, saws, pipe wrenches, soldering equipment, drill press, grinders, punches, etc., to perform tasks such as repair and maintain an HVAC system.

Skill in using shop math to calibrate thermostats and determine capacities of equipment and airflow required to air condition/ventilate.

Skill in using troubleshooting methods (visual, audible, and mechanical and computer diagnostic messages) to locate probable causes of malfunctions in HVAC systems.

Skill in interpreting schematics and manufacturing specifications in work such as tracing circuitry in control panels, rewiring units and replacing malfunctioning controls and equipment.

5. Knowledge of Federal, state and Airports Authority rules, guiding documents and procedures (including requirements on life safety and OSHA/VOSHA rules) to ensure that subordinates work in compliance with safety, security and other regulatory and programmatic requirements and standards.
6. 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 troubleshooting technical problems such as the acceptability of substituting a piece of equipment for one currently being worked on, to provide recommendations on the condition of equipment maintained by the Group in order to determine if replacements need to be made, and to ensure the observance and incorporation of accepted trade practices.

7. Skill in oral communication to understand verbal information (including facts, assertions and arguments) and to express such information verbally so that others will understand and, at times, be convinced or persuaded. This includes the ability to encourage oral communication by others. Examples include exchanging routine and non-routine operational and procedural information with Supervisor and subordinates, workers from other areas, and, as necessary, communicating with the other departments to coordinate work efforts.
8. Knowledge of the Airport's CMMS, supply program, and procurement procedures to plan, supervise and document the Group's work.
9. 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.
10. Interpersonal skills to interact effectively with business contacts in a businesslike, customer service-oriented manner.
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), 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, budgeting, time and attendance, and other functions; and (c) specialty systems/software used such as CMMS to plan, supervise, and document the Group's work.
12. Ability to supervise others in working safely and knowledge of those safety rules and procedures needed to do so.

RESPONSIBILITY Is responsible for supervising the HVAC Mechanics and HVAC Controls Technicians Group within the Utilities Section. The HVAC Supervisor oversees workflow, makes assignments by defining objectives, priorities and deadlines, assists the Group Supervisor with sensitive or complex personnel issues and unusual technical or operational situations lacking clear precedents, and may monitor the Group's work progress on a short term basis. Recurring assignments are carried out independently without specific instructions. Completed work, including recommendations on new equipment/systems and proposed work processes, is evaluated for technical soundness, appropriateness and conformance to guidelines. The methods used in arriving at the end results are not usually reviewed in detail. However, review of work

may increase with new or more complex assignments. The Group's core work is also reviewed through spot checks of quantity, quality and timeliness of work, adherence to safety, VUSBC and technical requirements, CMMS reporting, overall employee performance, customer comments, the condition of equipment and other methods/factors, including attainment of specified performance management goals and objectives.

EFFORT The work is primarily sedentary and typically requires light physical effort as in working extended periods while performing desk work on a computer and in opening/closing file drawers, lifting and carrying files/building plans, etc.; however, incumbent moves about in the field regularly. Reviews technical manuals, diagrams, schematics and other materials that contain small print. In the field, is occasionally confronted with hard-to-reach and hard-to-see work situations that typically require standing, walking, stooping, kneeling, crouching, reaching, climbing or other positioning of self to access and work on HVAC equipment. On own lifts, pushes/pulls or otherwise moves into position items weighing up to 50 pounds. Identifies overheating of 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. Conveys work information by telephone and two-way radio. Reacts to pagers, alarms of backing vehicles and sound/light warnings. In driving, operates vehicle using judgment in consideration of weather, traffic and other factors.

WORKING CONDITIONS Works in the Utility Building and/or an office most of the day which are adequately lighted, ventilated and temperature controlled, however in the Utility Building or in the field, is exposed to dust, dirt, grease, unpleasant odors, and potential for slipping on oily surfaces. May work outside in all kinds of weather (rain, snow, ice). Is subject to: possible burns from steam and chemicals; fumes and gases; possible electrical shock; potential falls from ladders and buildings; and loud noises from engines, chillers and compressors. Takes care, exercises established safety precautions and wears personal protective gear as appropriate.

OTHER SIGNIFICANT JOB ASPECTS Subject to hold over or recall on a 24-hour basis for essential services and emergencies such as snow removal. Must maintain EPA certification (Universal) to service HVAC equipment.