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 the Air-Conditioning Group Supervisor, in the Utilities Section of Washington Dulles International Airport (IAD), Metropolitan Washington Airports Authority (Airports Authority). Supervises air-conditioning mechanics and repairers performing maintenance, repair, installation, and operation of industrial-type air-conditioning, ventilation and refrigeration equipment, auxiliary heating units and all other general or special purpose equipment maintained by the mechanics.

Controls the work operations and supervises the employees of the group by performing a full range of supervisory functions: work planning, work assignment and review, and administration with primary emphasis on the accomplishment of day-to-day activities but involving mid- and long-term work planning for, and projects by, the group.

<u>Planning of Work</u> Coordinates with the HVAC Supervisor and Shop Planner in planning periodic maintenance, short-, mid- and long-range projects, estimating costs and justifying the purchase of new or replacement equipment, as pertains to the group. With HVAC Supervisor, provides input to the Utilities Branch Manager (Branch Manager) regarding budget needs including personnel requirements and the need for identified new or replacement equipment.

Coordinates projects with supervisors in other sections/divisions or contractors to ensure subordinate participation and support at appropriate times. Works with HVAC Supervisor and Shop Planner in preparing labor and material estimates for major repairs and projects, including the ordering of rental items. Completes purchase, material, and stock-and-store requests for group.

Creates and maintains weekly or longer term personnel schedules to maximize the effective use of resources and minimize group or equipment/system downtime. Determines priorities and establishes deadlines and schedules for subordinates on the basis of general work schedules, methods and policies. Reschedules work or changes assignments to meet critical deadlines or emergency needs, e.g., during power outages or equipment malfunctions, assigns preventive maintenance duties to workers.

Participates in feasibility studies concerning new work programs and may recommend budget projections for additional employees, machines and materials required. 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 shifts or calling people from the overtime list.

May recommend work changes that affect the budget or technical quality, e.g., approval for in-house repair, rather than contractor repair. Determines the need for and assures the supply of parts, materials, and equipment for projects by working with the HVAC Supervisor and Shop Planner within established supply and procurement processes.

<u>Assignment and Review of Work</u> 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. 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; coordinates all changes with the HVAC Supervisor first when major changes in plans, assignments or methods are deemed necessary.

As necessary, explains work requirements and safety precautions and leads or assists subordinates on difficult work operations. Leads journey level subordinates, as appropriate, in troubleshooting unusual problems with equipment or systems.

Reviews work contracted out to ensure vendor compliance with quality, safety and other standards and requirements. Assists employees with work problems such as designing connections for containment vessels to be assembled by air-conditioning mechanics.

Acts as the primary quality control inspector for all equipment serviced. 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/VOSH) rules, etc. Ensures acceptable quantity, quality, timeliness, customer service, etc., in fulfillment of work orders and all work activities of the group. Inspects work areas and other shop spaces for adherence to housekeeping and safety standards and requirements.

Administrative Actions Explains or applies the basic features of established Airports Authority personnel programs such as equal employment opportunity (EEO); incentives and awards; merit promotion; and time, leave and overtime policies. Approves or disapproves short term leave and daily overtime; makes recommendations to the HVAC Supervisor on longer term leave requests and special projects requiring overtime. Counsels employees on minor infractions of rules and recommends disciplinary action when appropriate. Recommends monetary and non-monetary awards, as appropriate.

Actively participates in the selection of candidates for position vacancies in the group; may assist in the selection process for trades positions outside the group, as requested. Helps establish performance management criteria for individual subordinates and the group as a whole and manages performance of subordinates under the Airports Authority's performance management program (PfP). Ensures the development of 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 journey level mechanics to conduct on-the-job training for new employees at any level.

Serves as the focal point for group matters relating to the Computerized Maintenance

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Management System (CMMS), including: ensures 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.

Ensures the maintenance of technical manuals, code manuals, safety and inspection logs pertaining to the group. Keeps abreast of the air-conditioning, ventilation and refrigeration trade and airports and Airports Authority issues that impact the work of the group. Investigates accidents and mishaps from the supervisory perspective.

Informs HVAC Supervisor of complaints or preferences of employees or customers.

Other Work 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 air-conditioning, refrigeration, ventilation and auxiliary heating systems/equipment. Calculates heat load of rooms to determine the size of equipment to be installed, e.g., uses square footage to calculate BTUs and size of air-conditioning unit and capacity of fan for modified areas.

Occasionally uses tools such as screwdrivers, wrenches, pliers and drills, electrical testers, meters, air pressure gauges, manometers, spectrometers, hydrometers and Simpson meters. Drives a pick-up truck, airside and landside, to meet with other supervisors, check work in progress, make service calls, etc.

May assist mechanics in responding to emergency calls, troubleshooting and identifying problems, and directing repairs, e.g., redesigns pneumatic and electronic controls. Draws sketches and diagrams of completed systems, as necessary. Consults with the Shop Planner on adjustments to preventive maintenance procedures and cycles. Performs inventory of tools and equipment.

May serve as Acting HVAC Supervisor, 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, multifunction telephone, and other computer hardware and modern office suite software (such as Microsoft Office), specialized software such as the CMMS and A/C diagnostic tools, and supply and procurement modules of Oracle used by the Airports Authority, and radio and telecommunication devices to plan, schedule, communicate, research diagnostic information, keep up with technology, obtain/close out work orders, 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 or a Certificate of General Educational Development (GED), or an equivalent combination of education, experience, and training.
- 2. Five years of <u>progressively responsible</u> experience (post high school) in the installation, test, diagnosis, maintenance, and repair of air-conditioning (A/C) equipment and systems, which includes specialized experience with a range of commercial and industrial A/C equipment and systems, such as, but not limited to, chillers, air- and water-cooled condensers, low-pressure boilers, humidifiers, dehumidifiers, circulating pumps, air handlers, exhaust fans, air curtains, ice machines, and refrigerators. This includes knowledge of the theories, principles, requirements, and standards of the trade. (A Journey License as an Heating, Ventilation & Air-Conditioning Mechanic is evidence of four years of progressively responsible trade experience, but is not, by itself, evidence of experience with commercial and industrial A/C equipment and systems.)
- 3. Environmental Protection Agency (EPA) Universal Certification (Section 608) to service HVAC/Refrigeration Equipment.
- 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 <u>may be</u> considered in the selection process, but they are not required to be rated qualified for this job.

- 1. A Journey License (or higher) as an HVAC Mechanic.
- 2. Experience working safely in a skilled trade requiring prolonged concentration and attention to detail on a busy airfield or in an equivalent work environment, such as, 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 the time of vacancy announcement closure.

- 1. Knowledge of supervisory principles and personnel programs/practices, including EEO principles and requirements, to supervise subordinates (plan, assign, and review work); maintain productivity; control costs; explain the basic features of personnel programs such as equal employment opportunity and merit promotion; rate performance; initiate disciplinary actions; and carry out related programs; or the ability to rapidly acquire and then skillfully apply such knowledge.
- 2. Full performance (journey) level knowledge of and skill in, heating, ventilating, and air-conditioning (HVAC) equipment and systems installation, testing, adjustment, maintenance, troubleshooting, and repair/replacement with a primary emphasis on air-conditioning equipment and systems such as chillers, air handlers, package and split-system air-conditioners, heat pumps, etc. This includes but is not limited to:

Knowledge of the theories, principles, requirements and standards of air-conditioning, ventilation, refrigeration, heating and control systems such as the refrigeration cycle, heat transfer laws, the use of refrigerant tables, calculation of airflow and pressure-temperature characteristics for different air-conditioning and ventilating systems to troubleshoot and repair air-conditioning equipment, ensure the safe and efficient operation of the systems including the pressure-temperature characteristics for the different systems, assist in developing specifications and standards, help evaluate the feasibility of new programs, and assist/supervise subordinates in the resolution of problems.

Knowledge of electrical, pneumatic, and electronic principles to evaluate, adjust, and test the operation of HVAC controls.

Knowledge of Building Automated Systems (BAS) to operate, test, and troubleshoot HVAC equipment.

3. Skill in use of the tools, techniques, technical manuals, schematics, materials, and other equipment and guides and practices of the trade to supervise others in complex work and perform routine supervisory reviews of work in progress or upon completion. Examples include:

Skill in using shop math to calibrate thermostats and determine sizes of ducts, capacities of equipment, and airflow required to air-condition/ventilate small areas.

Skill in interpreting blueprints, schematics, and wiring diagrams to troubleshoot electrical, pneumatic, and mechanical malfunctions, and repair refrigerators, air-conditioners, air handlers, etc.

Skill in using tools and equipment, such as psychrometers to measure atmospheric conditions, torches to weld pipe, and leak detectors to locate leaks, etc.

- 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 identifying, defining, and solving work planning, assignment and review issues and to troubleshoot and remedy critical, 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 assure the observance and incorporation of accepted trade practices
- 5. Skill in oral communication to understand verbal information (including instructions, descriptions, and ideas) and to express such information verbally so that others will understand. Examples include giving direction and guidance to subordinates and exchanging routine and non-routine operational and procedural information with co-workers, contractors, and customers.
- 6. Knowledge of the airport's maintenance management system (CMMS), supply program and procurement procedures to plan, supervise and document the group's work.
- 7. Skill in using a computer and modern office suite software (such as MS Office) to plan, schedule, communicate (using email), word process (light word processing only) and perform research (Internet use, as in searching for parts and performance information and keeping up with technology), specialized software such as the CMMS to obtain/close out work orders and A/C diagnostic tools, supply and procurement modules of Oracle to requisition parts, and HVAC diagnostic and operating software to troubleshoot problems and fine tune equipment.
- 8. 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 and using Safety Data Sheets (SDS).
- 9. Interpersonal skills to interact with business contacts in a businesslike, customer service-oriented manner.
- 10. Knowledge of Federal, state and Airports Authority rules, guiding documents and procedures (including requirements on life safety and OSHA/VOSH rules) to ensure that subordinates work in compliance with safety, security and other regulatory and programmatic requirements and standards.

**RESPONSIBILITY** Is responsible for supervising the Air-Conditioning Group within the Utilities Section. Reports to the HVAC Supervisor who oversees workflow, makes assignments by defining objectives, priorities and deadlines, assists the incumbent 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 to arrive at the end results are not usually reviewed in detail. The group's core work is reviewed through review in process and upon completion, in terms of quality, quantity, timeliness, customer comments/service, teamwork and overall employee/subordinate performance including group productivity, adherence to safety, VUSBC, and technical requirements, CMMS reporting, condition of equipment and other factors, including attainment of specified performance management goals and objectives.

EFFORT Works at a desk and moves about in the field regularly. Typically sits while doing paperwork or working on a computer. Frequently exchanges information by telephone or radio. 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 air-conditioning equipment. On own lifts, pushes/pulls or otherwise moves into position items weighing up to 50 pounds (e.g., refrigerant drums). 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 or an office most of the day, however, in the building or in the field, is exposed to dust, dirt, grease, unpleasant odors, and potential for slipping on oily surfaces. In the field, works 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.