

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 a Plumber-Pipefitter Apprentice in the Engineering and Maintenance Department (Department) at Ronald Reagan Washington National Airport (DCA) or Washington Dulles International Airport (IAD), Metropolitan Washington Airports Authority (Airports Authority). Participates in the formal, state-approved Trades Apprentice Employment Program of the Airports Authority to develop the knowledge, skills, and abilities necessary to become a licensed, journey level Plumber-Pipefitter. Receives on-the-job technical training and attends formal classroom technical training to build electrical knowledge and skills and to help Plumber-Pipefitters perform planned repairs and preventive maintenance on airport electrical systems and equipment. Learns and performs progressively complex and responsible (elementary to semi-skilled to fully-skilled) plumbing-pipefitting work as knowledge, skills and abilities in the trade increase. Performs related functions.

Learns how to use, and gains full proficiency in using, manuals, technical guides, plumbing/operation diagrams and schematics, and the various hand and power tools of the trade such as wrenches, drills, saws, levels, measuring tapes, grinders, jackhammers, leak detectors, pipe cutters and threaders, hand tachometers, hydraulic valve turners, flow and pressure gauges, and water sampling devices to install, maintain, and repair equipment.

Helps higher grade Plumber-Pipefitters in their work by assembling and transporting tools and materials to the job site, supplying requested tools and parts as work is performed, lifting and holding the work object(s), and cleaning up. Performs other tasks requiring elementary to fully proficient levels of plumbing-pipefitting knowledge and skill consistent with the Trades Apprentice Employment Program.

As directed and guided by a higher grade Plumber-Pipefitter, builds knowledge and skills in the trade consistent with the apprenticeship program:

Stores and stocks materials and equipment, as assigned. Prepares work area by shoring ditches for safety and using jackhammers and chisels to expose pipelines. Performs repairs as directed, (such as cuts, threads and solders pipes, modifies pipe size, and repacks or replaces valves). Disassembles pumps and back-flow preventers to replace parts or in using schematics to troubleshoot equipment. Modifies systems (such as installing lines on sprinkler systems), or adds new equipment (such as pumps and back-flow preventers). Troubleshoots issues such as inadequate pressure to determine cause (such as leaks or pump malfunctions) and repairs problems. Disassembles 10 to 200 horsepower pumps and replaces worn or broken parts such as impellers, seals, or bearings. Repacks or replaces valves. Checks pipe, joint, and valve sizes, and checks types of pumps to support system pressures to move water and waste material. Installs and repairs piping (including hard and soft copper, plastic, or cast iron), and all types of plumbing fixture installations.

Performs preventive maintenance by checking lubricant levels, lubricating and testing adjusting pulleys, tightening tension belts, changing belts on fan motors, changing

sprinkler heads, changing filters on faucets and spigots, etc. Pumps sewage stations and vacuums solid waste and sludge, flushes stagnant water from hydrants, flushes reservoirs and removes any debris. Paints pump rooms, as assigned.

Gains and applies knowledge of building, fire and other codes and regulations pertinent to the trade in general and in an airport environment.

Assists in preparing and maintaining, or prepares and maintains, records of work orders, trouble calls and preventive maintenance; enters data into the Airports Authority's Computerized Maintenance Management System [CMMS].

Drives a pick-up truck or similar vehicle (with tools, parts, etc.) to airside and landside work sites, and may drive to/from suppliers and other sites.

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, tenants, and airline employees, tenants, concessionaires, vendors/suppliers, and, on occasion, the general public.

Uses 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 trades practices, plumbing codes and regulations); (b) enterprise systems/software for requisitioning, time and attendance, and other functions; and (c) special systems/software to process work orders and perform other functions.

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.

See Job Announcement.

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. Ability to learn bodies of knowledge and gain skills in the Plumbing-Pipefitting trade consistent with the schedule for progression as an Apprentice in the Trades Apprentice Employment

Program of the Airports Authority; this includes, but is not limited to, ability to acquire and apply (a) knowledge of plumbing-pipefitting principles, terminology and accepted trade practices to progress from elementary and helper level work to full journey level work, (b) skill in using such tools as levels, wrenches, saws, drills, soldering irons, grinders and manual or power threaders and ability to learn to use such equipment as jackhammers, leak detectors, flow and pressure gauges, (c) skill in problem solving to select, organize, and logically process relevant information (verbal, numerical or abstract) to solve problems in the trade (using schematics/other references, troubleshooting techniques, etc.), (d) knowledge of building, fire and other codes and regulations pertinent to the trade in general and in an airport environment, and (e) knowledge of, and skill in, working safely in the trade in general and in an airport environment.

2. Skill in oral communication sufficient to understand verbal information (instructions, descriptions, and ideas) and to express such information verbally so that others will understand. Examples include exchanging information with a Supervisor, Leader, or higher grade Plumber-Pipefitter about trouble calls, procedures, and tools or parts needed.
3. 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, consistent with programmatic progress, 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.
4. 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 trades practices, building codes and regulations relevant to plumbing-pipefitting); (b) enterprise systems/software for requisitioning, time and attendance, and other functions; and (c) special systems/software used in the Department to process work orders and perform other functions.
5. Interpersonal skills to interact effectively with business contacts in a businesslike, customer service-oriented manner.

RESPONSIBILITY Is responsible for progressing in the plumbing-pipefitting trade consistent with the Trades Apprentice Employment Program of the Airports Authority; this includes, but is not limited to, building knowledge and skills in the trade and performing progressively complex and responsible (elementary to semi-skilled to fully skilled) plumbing-pipefitting work as knowledge and skills in the trade increase. Reports to a Supervisor in the trade. Typically, a higher grade Plumber-Pipefitter, Leader or Supervisor makes specific assignments, but some assignments may be generated by work order given to the incumbent consistent with progress in the trade. The incumbent follows accepted trade practices in selecting the methods, tools or materials to use consistent with progress in the trade. A higher grade plumbing-pipefitting employee is available for advice and assistance on new work; work that has been mastered may be performed on own. The work may be monitored in progress, but it is typically reviewed upon completion to ensure it complies with instructions, accepted trade practices, timeliness, teamwork, customer service and

other types of requirements and standards.

EFFORT Work is sedentary (in certain classroom situations) and physically demanding. Incumbent moves about to service, troubleshoot, and repair equipment. Is frequently 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 pumps and piping. Works in cramped positions and tight spaces for prolonged periods. On own lifts, pushes/pulls or otherwise moves into position items weighing up to 50 pounds (such as pumps, blowers and back-flow preventers). Uses a variety of hand and bench tools (such as grinders, vises, etc.). Reads displays and read-outs of dials, gauges and monitors, (such as flow and pressure gauges). Distinguishes color-coded objects, (such as underground utility lines and water sampling materials). Exchanges work information by telephone and two-way radio. Responds to alarms of backing vehicles. In driving, safely operates vehicle using judgment based on weather, traffic, and other factors.

WORKING CONDITIONS Works inside and outside in all kinds of weather (rain, snow, ice). Is regularly subject to extreme heat (sometimes exceeding 115 degrees F) in manholes, with potential for dehydration; hazardous substances and gases; unpleasant odors and fumes; raw sewage, dirt and mud; possible burns from steam, hot water (320 degrees F) and chemicals; potential falls from ladders; and possible cave-ins of ditches. Occasionally works in manholes, lift stations, wet wells and other confined areas for extended periods ranging from short periods to most of the shift. Is sometimes exposed to noise of jet aircraft and may potentially be exposed to hazardous materials such as friable asbestos. Exercises care, follows established safety precautions and procedures, and uses personal protective equipment (such as hard hat, steel toed shoes, rubber/leather gloves, eye protection and hearing protection) and other safety equipment (such as respirator, gas/oxygen detector, sewer suite, safety-recovery harness with tripod and confined space monitor), as appropriate and required. May be subject to time pressures of restoring operations of equipment or systems essential to Airport functions.

OTHER SIGNIFICANT JOB ASPECTS Is subject to hold-over and recall on a 24-hour basis for essential services and emergencies such as broken water mains and snow removal.