

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 heavy equipment operator at Washington Dulles International Airport (IAD). Operates a variety of heavy construction equipment, grounds maintenance equipment, and airfield-specific equipment including those with multiple engines; computer operated systems; electronic controls systems; hydraulic systems and/or telescopic booms; for road construction, repair, and maintenance; parking lot repair and construction; mowing and application of pesticides and herbicides; airfield emergency and planned repair and sweeping and snow removal; and the hauling of heavy equipment. Performs related functions.

Performs emergency and planned repairs of runways and taxiways on the airfield requiring the sweeping or repairing of spalled areas using heavy equipment and airfield specific equipment such as large twin-engine airfield sweepers. Performs runway and taxiway inspections for airfield related issues when working on or near movement area and reports deficiencies to supervisor or Airport Operations, as appropriate. Works with team to provide non-emergency, planned repairs; may be assigned as lead operator on a planned repair team. May provide leader or supervisor with an estimate of needed gravel, concrete, etc. to make emergency repairs.

Performs inspections of the Dulles International Airport Access Highway (DIAAH) and other airport roads to ensure road surfaces are free and clear of any issues that would impede the flow of traffic, including spalled areas. Clears roadway or performs emergency repairs with team, when necessary, which may involve setting up lane closures or involve making changes to established traffic patterns. Ensures that proper signage, acceptable warning distances, speeds, proper jersey barrier placement, and crash barrel placement are in place. Properly implements the use of highway speed attenuator, variable message boards, and proper wording and arrow board placement when effecting changes to traffic patterns.

Operates computer-controlled crane (to lift/set large and/or delicate objects requiring precise judgment and extreme skill such as break-away light poles for the electricians, hydraulic lift systems for the heavy mobile equipment mechanics, and gear boxes on top of cooling towers for the HVAC mechanics); CDL-class motor vehicles (to bring materials such as various grades of asphalt and stone from quarries and asphalt plants for construction or repair of airfield pavements or roadways); large motor graders and loaders (to slope ground to specifications); aerial platform equipment (to install fall protection equipment at the salt/sand storage facility, or to fell large hazardous or frangible trees); and vacuum trucks, self-propelled brooms, and snow removal equipment (to cleaning runways, taxiways, and ramps).

Frequently makes precise adjustments on computer, electric over hydraulic, and electronically-controlled equipment or installs and/or removes accessories on a variety of heavy equipment, such as large runway snow plows, blower heads, sanders, snow baskets, excavation buckets, bush hogs, boom arm mowers, pavement planers, de-icing tankers, tractor trailers, attenuators, large highway material spreaders, motorized asphalt paving equipment, computerized herbicide application equipment and computer controlled 28-ton hydraulic cranes. Off-loads tanker truck deliveries of de-icing fluid and estimates amounts used so stock can be replenished. Sets up

pumping stations for liquid de-icing fluid requiring fabrication of piping, valves, hoses and controls to load up to 4,000-gallon tankers.

Cuts brush, mows grass, and applies pesticides and herbicides by self, in tandem with another tractor operator, or in a team using tractors or other equipment with large attachments or accessories such as 15' or 20' batwing bush-hog attachments. In applying pesticides and herbicides calibrates the application equipment for application along the airfield, fence lines, around buildings, and along roadways and utility right-of-ways.

Excavates, trenches, and shores abutments utilizing heavy equipment such as a backhoe according to Occupational Safety and Health Administration (OSHA) sloping and shoring standards for installing or repairing utilities such as high voltage electric, natural gas, high temperature hot water and high-pressure water lines.

Hauls heavy equipment to job sites using Virginia Department of Transportation (VDOT) standards for securing, hauling and applicable weight restriction specifications.

Regularly uses shovels, picks, spades, rakes, pruners, chain saw, wrenches, screwdrivers, digging bar, jackhammer, measuring equipment, zero turn mowers, and weed eaters in addition to heavy equipment in the performance of assigned duties. Participates on team efforts to pick up trash, dead animals, and debris, trim trees that would obstruct traffic on roadways or be frangible adjacent to runways.

May provide on-the-job training to other operators unfamiliar with a particular piece of equipment (such as computer operated crane, track dozers, track hoes, rubber tire loaders, grade-all, backhoes, motor grader, vibratory rollers, etc., with multiple attachments) or initial and annual refresher training to snow removal crews on the operation of snow removal equipment (snow blowers, snowplows, tow-behind brooms for de-icing, etc.).

Occasionally installs engineering grade stakes or snow stakes as guides for constructing roadways or culvert installation or for snow removal and snow fence, trimming trees that are growing too close to the perimeter fence, and clearing airfield storm drainage systems. May install grade states using laser transmitting system.

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 executives, managers, supervisors, professionals, and support staff), vendors/suppliers/tenants, airport users, and the general public.

Uses a computer for various office applications (email, word processing, spreadsheets, graphics, etc.), ERP (enterprise procurement-logistics system) applications, inventory management, and the current enterprise asset management and computerized maintenance management system (CMMS) to record work progress and document quality of finished work.

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. Four years of progressively responsible experience (post high school) in the operation of heavy duty equipment. Three of these years should include the operation of motorized construction equipment.
3. Ability to obtain a CDL class A, within 120 days of hire, promotion, or placement into the position.

PREFERRED QUALIFICATIONS

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

1. Possession of a Class A Commercial Driver's License (CDL).

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.*

- a. Knowledge of heavy equipment (backhoes, compactors, dozers, excavators and mini excavators, loaders, scrapers, skid steers, trenchers, pavers, chippers, rollers, mowers, skidders, booms, forklifts, work platforms, and trailer and haulers, etc.) to build and maintain airport parking lots and roads; dig trenches, holes, and fire breaks; mow and bush-hog areas; apply pesticides and herbicides; lift and install items/fixtures; grade roadways and shoulders, etc.
2. Skill at the journey level as a heavy equipment operator exhibiting the:
 - Skill to apply operator knowledge in the above areas to operate heavy equipment in the paving and repairing of roads, parking lots, and the airfield; cut/mow grass and areas

adjacent to the airfield and along the DIAAH; assist other trades in positioning equipment (such as using a crane to lift large, heavy items onto roofs); digging trenches for utilities; etc.

- Skill in using manual, hydraulic, and electronic control systems to adjust and calibrate heavy equipment and/or attachments to dig holes, grade slopes, control sprays, etc., to exact specifications; adjust tracks and attachments; manipulate and balance loads; etc.
 - Skill in making multiple connections of attachments and operating levers, gears and pedals on snow plows and graders, telescopic angle brooms, rotary brooms, couplers, grapplers, augers, thumbs, de-icing booms, etc., and in interpreting technical manuals to do so, as necessary.
 - Skill in applying Virginia Department of Transportation (VDOT) regulations to do lane closures or make changes to established traffic patterns on the DIAAH and airport roads to enable operators to mow adjacent areas, repair roadways and shoulders, etc.
 - Apply safety rules and procedures such as those issued by VDOT, OSHA (regarding job safety), Department of Agriculture (regarding chemical applications).
 - Skill in using hand tools such as shovels, picks, spades, and rakes for grounds and road maintenance; power equipment such as a jackhammer to break up pavement; chain saws to trim trees; and measuring tools such as tape measure, measuring wheel, and stick ruler to place engineering grade stakes for fine grading.
 - Skill in using shop mathematics to calculate amounts of materials needed to complete project, such as amounts of pesticides or herbicides required for various applications.
 - Skill in correctly placing (by drawings, etc.), or be guided by, engineering grade stakes when constructing roadways, or for culvert installation.
3. Knowledge of Federal and state regulations regarding load capacities and loader operations/regulations for equipment such as forklifts, cranes, dump trucks, and road tractor trailers to haul large equipment, asphalt, and stone, install fall protection equipment, fell large trees, or lift heavy loads.
 4. Knowledge of the airport layout including AOA traffic rules and regulations to safely operate heavy equipment on and around active runways and taxiways.
 5. 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 determining specific equipment needed to

perform an assigned task and in determining the items needed to affect emergency repairs to spalled areas of roadways, parking lots, or the airfield.

6. 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 exchanging routine and non-routine operational and procedural information with co-workers, workers from other areas, and, as necessary, the public; and in communicating with the control tower when working on or adjacent to the airfield.
7. Skill in written comprehension to understand written information (including instructions, descriptions, and ideas) and in written communication to express such information in writing so that others will understand. Examples include reading technical-operational materials (such as technical manuals, schedules, and work orders) and administrative-programmatic materials (such as Washington Dulles International Airport (IAD) and Airports Authority supply procedures), and writing briefly about similar types of matters, such as closing out work orders, and documenting runway closures or equipment failures.
8. Skill in using a computer, modern office suite software (such as MS Office); specialized software (such as the Airports Authority supply and procurement modules of Oracle); and word processing (light word processing only); enter data regarding work orders and perform research (Internet use, as in keeping up with technology, etc.).
9. Interpersonal skills to interact with contacts in a businesslike, customer service-oriented manner.
10. Ability to work safely and knowledge of the safety rules and procedures needed to do so.

RESPONSIBILITY Responsible for operating a variety of heavy duty equipment at full performance (journey) level in construction, maintenance, and snow removal activities.

Reports to the Grounds Supervisor (Heavy Equipment Operator Supervisor) who provides oral or written assignments and instructions concerning the location of the job and the work to be done. The incumbent may work independently, in tandem or in a team with other Heavy Equipment Operators, or with other trades (electrician, plumbers, carpenters, and mechanics) to complete an assignment. Supervisor's oversight focuses on work prioritization and compatibility with other jobs scheduled and emergencies, ensuring it is performed in a timely manner, in accordance with any instructions, and according to accepted trade practices.

EFFORT Work requires moderate to heavy physical exertion (such as frequently moving heavy items weighing over 75 pounds and sometimes moving items weighing 100 pounds such as bags of fertilizer) and close mental attention to details while operating heavy equipment on slopes, rocky and rough terrain, heavily wooded areas, and on active airfields and roadways. Sits in vehicles for long periods and may be subject to the vibrations of operating equipment. Traverses uneven ground when policing grounds, trimming trees, and cutting brush on or near roads.

Maneuvers body (e.g., reaches, bends, turns or otherwise positions self) to operate controls of vehicles and to coordinate functions of equipment or attachments for various purposes. Occasionally enters confined spaces (such as to clean rented 17,000-gallon storage tanks prior to contractor pick up, and when using a crane to attach and lift large valves from inside utility manholes).

Frequently makes precise adjustments on computer, electric over hydraulic, and electronically-controlled equipment. Gives and receives signals (usually hand signals). Recognizes changes in the touch of controls that indicate possible unseen underground obstructions. Obtains information about the status of equipment/systems and the need for fuel and operation characteristics of vehicles from dials and gauges. Frequently communicates by two-way radio with shop personnel and Airport Operations and occasionally with the FAA tower. Responds to sound warnings such as back up alarms on equipment and vehicles. Operates vehicles using judgment in consideration of weather, traffic and other factors.

WORKING CONDITIONS Regularly works outside in all types of weather, including inclement weather (rain, fog, snow, ice, cold and high heat/humidity) and can spend long hours in the sun. Is subject to exposure to dust; dirt; grease; hot asphalt; unpleasant odors; fumes; potentially hazardous materials; noise from aircraft and diesel engines; possible flying rock particles or tree branches; prolonged, sometimes violent vibrations of equipment; possible poison ivy and insect bites; and hazards of driving on a busy airport. Exercises care and uses personal protective equipment and other safety gear, such as, hard hat, face shield, safety shoes, chaps, gloves, hearing protection, and eye protection, as required.

OTHER SIGNIFICANT JOB ASPECTS This position is required to work various shifts as needed based on work load, operational needs, shift coverage, etc. Assignments include night hours and weekends. Is subject to hold-over and recall on a 24-hour basis for essential services and emergencies such as snow removal.