



## HVAC/ELECTRICAL SPECIALIST

**DEPARTMENT:** General Services

### **NATURE OF WORK:**

Performs manual labor and semiskilled work including a variety of procedural tasks in the maintenance of Heating, Ventilating (and) Air Conditioning (HVAC), and electrical equipment and systems in County buildings.

Work hours include some nights, weekends, and holidays. Work is performed under the continuing supervision of HVAC Lead Worker, Electrical Lead Worker, or HVAC/Electrical Technician.

### **ESSENTIAL FUNCTIONS OF JOB:**

Performs general HVAC preventive maintenance and repairs such as changing HVAC filters and pulley belts, lubricating shafts and motors; assists with major equipment repairs as needed.

Performs electrical maintenance tasks such as re-lamping burnt out fixtures; assists electrical staff in other requirements as needed.

Follows proper procedures, standards, methods, tools, and equipment of HVAC and electrical trades.

Performs work safely in accordance with departmental safety procedures and the County Safety Program. Operates equipment safely and reports any unsafe work condition or practice to supervisor.

Performs other related duties as assigned.

### **JOB LOCATION AND EQUIPMENT OPERATED:**

Duties are performed indoors and outdoors at various County facilities; and requires frequent heavy lifting, climbing, working at varied heights; operates a variety of hand and power tools and equipment.

Drives County vehicle to work sites throughout the County.

### **REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Knowledge of the techniques of HVAC or electrical maintenance.

Ability to operate hand and power tools.

Ability to deal courteously with co-workers and the general public.

Ability to read and interpret blueprints.

Ability to accurately diagnose equipment problems.

Ability to follow oral and written instructions; work in inclement weather; and some nights, weekends, and holidays as required.

**MINIMUM QUALIFICATIONS:**

High school diploma or equivalent and 12 months as HVAC/Electrical Assistant with James City County, or any equivalent combination of acceptable education and experience providing the knowledge, skills, and abilities cited above.

**NECESSARY SPECIAL QUALIFICATIONS:**

Must possess a valid Virginia driver's license with an acceptable driving record based on James City County's criteria.

Must obtain and maintain CFC certification.

Must have journeyman's license or a minimum of four years' experience in HVAC and/or electrical work.

Must be able to read and interpret blueprints; work independently; and, accurately diagnose equipment problems.

Date: May 2005

hvacelectspec.278\_141\_01

# IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

Position Title HVAC/Electrical Specialist Position Number 278-01  
Department General Services Division Maintenance

The Americans with Disabilities Act requires that we identify the general aptitudes and physical requirements needed to perform the job listed above. Individuals who have the position must be able to perform all essential job functions unaided or with reasonable accommodation.

**I. Mental Abilities:** General learning ability. The ability to “catch on” or understand instructions and underlying principles.

- Ability to understand and follow oral instruction
- Ability to understand and follow written instruction
- Ability to guide and/or give instructions
- Ability to make decisions in accordance with established procedures and policies
- Not essential to job function

**II. Verbal Abilities:** Ability to understand meanings of words and ideas associated with them and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

**1. Speaking/Talking:**

- Answering telephone, radio, or switchboard
- Communicating with County officials
- Communicating with general public
- Communicating with vendors
- Communicating with supervisors and/or with other employees
- Communicating with others \_\_\_\_\_
- Not essential to job function

**2. Hearing/Listening:**

- Ability to distinguish between different tones
- For communication with County officials, public, vendors, supervisors and/or other employees
- Not essential to job function

**3. Reading:** (ability to read and understand text)

- Essential to job function
- Not essential to job function

**III. Numerical:** Ability to perform arithmetic operations quickly and accurately.

- Ability to mentally perform accurate two digit calculations
- Ability to perform accurate calculations aided by a calculator, adding machine or measurement device
- Not essential to job function

**IV. Spatial Abilities:** Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blue print reading and in solving geometry problems. Frequently described as the ability to “visualize” objects of two or three dimensions, or to think visually of geometric forms.

- Essential function
- Not essential function

**V. Motor Coordination:** Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

**1. Manual Dexterity:** Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use telephone      | <input checked="" type="checkbox"/> Manipulate computer keyboard and mouse |
| <input type="checkbox"/> Use switchboard               | <input type="checkbox"/> Use postage machine                               |
| <input checked="" type="checkbox"/> Use radio/console  | <input checked="" type="checkbox"/> Use hand tools                         |
| <input checked="" type="checkbox"/> Use a calculator   | <input checked="" type="checkbox"/> Use power tools                        |
| <input checked="" type="checkbox"/> Use a copy machine | <input type="checkbox"/> Other: _____                                      |
| <input checked="" type="checkbox"/> Use a fax machine  | <input type="checkbox"/> Not essential to job function                     |

**2. Finger Dexterity:** Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. For example: electrical wiring.

- Essential to job function
- Not essential to job function

Explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VI. Physical Demands:**

**1. Strength:** The quality, state or property of being strong. The power to withstand strain, force or stress.

Please check (✓) in appropriate boxes below.

Ability to manipulate materials and/or equipment (lbs)							Frequency of Manipulation		
	5-	5-10	10-15	15-25	25-50	50+	Occasionally	Frequently	Continuously
<b>Lift</b>						✓		✓	
<b>Push/Pull</b>						✓		✓	
<b>Hold/Carry</b>						✓		✓	

Manipulation done from:  ground to waist     waist level     waist to shoulder     above shoulder  
(Check all that apply)

Not essential to job function:  Lift     Push/Pull     Hold/Carry (Check all that apply)

**2. Climbing:** To move up or mount by using the hands or feet.

- | <u>Ladders</u>   | <u>Stairways</u>                                       | <u>Steps</u>   |
|--|--|--|
| <input checked="" type="checkbox"/> Step stool                     | <input checked="" type="checkbox"/> 1 flight           | <input type="checkbox"/> 1-2                           |
| <input checked="" type="checkbox"/> 8' to 10' step ladder          | <input type="checkbox"/> 2 flights                     | <input type="checkbox"/> 2-3                           |
| <input checked="" type="checkbox"/> Extension ladder               | <input type="checkbox"/> 3 or more flights             | <input checked="" type="checkbox"/> 4 or more steps    |
| <input checked="" type="checkbox"/> Other <u>Scaffolding</u> _____ | <input type="checkbox"/> Other _____                   | <input type="checkbox"/> Other _____                   |
| <input type="checkbox"/> Not essential to job function             | <input type="checkbox"/> Not essential to job function | <input type="checkbox"/> Not essential to job function |

**3. Ability to Stand, Sit, Walk, and Run:**

Please check (✓) in appropriate boxes below.

	Duration (hours/day)						Occasionally	Frequently	Continuously
	0-1	1-3	3-5	5-7	7-9	9+			
<b>Stand</b>			✓					✓	
<b>Sit</b>		✓						✓	
<b>Walk</b>		✓						✓	
<b>Run</b>									

If walking or running, over what type of terrain?  flat     rough     both

Not essential to job function:  Stand     Sit     Walk     Run (Check all that apply)

**4. Stooping, Kneeling, Crouching, and/or Crawling:**

To bend forward or down from the middle of the waist or the middle of the back, to bend downwards, to lower oneself and/or to move freely on hands and knees.

**Daily Amounts**

- 0-5x       5-20x       20-50x       50+x  
 Other \_\_\_\_\_       Not essential to job function

**5. Reaching, Handling, Fingering, and/or Feeling:**

To stretch out, extend, or put forth a bodily part. To touch or grasp something, by extending or stretching. To touch, lift, hold or operate with the hands.

**Daily Amounts**

- 0-5x       5-20x       20-50x       50+x  
 Other \_\_\_\_\_       Not essential to job function

**6. Seeing: To perceive or comprehend by the sense of sight.**

Essential to job function: These characteristics are necessary (Check all that apply)

- Peripheral vision
- Night vision
- Focus (distinctness or clarity)
- Color perception (discriminate between colors)
- Depth perception (determine distance relationship between objects)
- Not essential to job function

**VII. Driving: The ability to transfer or convey in a vehicle.**

<b>Transmission</b>	<b>Standard</b>	<b>Automatic</b>	<b>Multi-Gears</b>
Car	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Van	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Small Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Medium Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Truck w/Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Bus Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not essential to job function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (list) _____			