

**POSITION DESCRIPTION** (Please Read Instructions on the Back)

1. Agency Position No.  
6580A

2. Reason for Submission <input checked="" type="checkbox"/> Redescription <input type="checkbox"/> New <input type="checkbox"/> Reestablishment <input type="checkbox"/> Other		3. Service <input type="checkbox"/> Hdqtrs <input checked="" type="checkbox"/> Field	4. Employing Office Location VATVHS	5. Duty Station Murfreesboro or Nashville	6. OPM Certification	
7. Fair Labor Standards Act <input type="checkbox"/> Exempt <input checked="" type="checkbox"/> Nonexempt		8. Financial Statements Required <input type="checkbox"/> Executive Personnel <input type="checkbox"/> Employment and Financial		9. Subject to IA Action <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
10. Position Status <input checked="" type="checkbox"/> Competitive <input type="checkbox"/> Excepted (Specify in Remarks) <input type="checkbox"/> SES (Gen.) <input type="checkbox"/> SES (CR)		11. <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Neither	12. Sensitivity <input checked="" type="checkbox"/> 1-Non-Sensitiv <input type="checkbox"/> 3-Critical <input type="checkbox"/> 2-Noncrit <input type="checkbox"/> 4-Special		13. Competitive Level Code	
14. Agency Use						

7370A + Replaces P.P# 6580A  
CLASSIFIED ON 5/16/98

15. Classified/Graded by	Official Title of Position	Pay Plan	Occupational	Gra	Initial	Date
a. U.S. Office of Personnel Management						
b. Department, Agency or Establishment						
c. Second Level Review						
d. First Level Review	AIR CONDITIONING EQUIP OPER	WG	5415	11		2-25-03
e. Recommended by Supervisor or Initiating Office	Air Conditioning Equipment Operator	WG	5415	11		

16. Organization Title of Position (If different from the official title)

17. Name of Employee (If vacant, specify)

18. Department, Agency, or Establishment Department of Veterans Affairs	c. Third Subdivision Administrative Services
a. First Subdivision Veterans Health Administration	d. Fourth Subdivision Engineering Service
b. Second Subdivision Tennessee Valley Healthcare System	e. Fifth Subdivision Maintenance & Operations Section

Employee Review — This is an accurate description of the major duties and responsibilities of my position.

Signature of Employee (optional)

20. Supervisory Certification. I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships, and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that this information is to be used for statutory purposes relating to appointment and payment of public funds, and that false or misleading statements may constitute violations of such statutes or their implementing regulations.

a. Type Name and Title of Immediate Supervisor Utility Systems Oper Supvr	b. Typed Name and Title of Higher-Level Supervisor or Manager (optional) Albert R. Richards, Acting Chief Engineer
Signature _____ Date _____	Signature <i>Albert R. Richards</i> Date <i>2-18-03</i>

21. Classification/Job Grading Certification. I certify that this position has been classified/graded as required by Title 5, U.S. Code in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.

22. Position Classification Standards Used in Classifying/Grading Position

Information for Employees. The standards, and information on their application, are available in the personnel office. The classification of the position may be and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.

Typed Name and Title of Official Taking Action  
William H. Hardwick, Chief, HRMS

Signature *W.H. Hardwick* Date *2/27/03*

23. Position Review	Initials	Date	Initials	Date	Initials	Date	Initial	Date	Initial	Date
a. Employee (optional)										
b. Supervisor										
c. Classifier										

24. Remarks

Attachment of Major Duties and Responsibilities (See Attached)

## **Air Conditioning Equipment Operator, WG-5415-11**

### Principle Duties and Responsibilities

The incumbent's position is in the Air Conditioning & Refrigeration Plant of the Maintenance and Operations Section, TVHS Engineering Service. The Air Conditioning Equipment Operator receives little or no detailed instructions in the performance of assigned tasks. The tasks assigned to the Air Conditioning Equipment Operator are more complex in nature and require a broad knowledge of equipment and systems; a broad practical knowledge of principles and application of the refrigeration and air conditioning trades; a Universal Refrigerant Certification; and an extensive knowledge of electrical theory in alternating current, direct current, and solid state circuitry. The Air Conditioning Equipment Operator position is one of a group that works an 8-hour shift, twenty-four hours per day, seven days per week and must rotate the different shifts at planned intervals.

- **Operation of HVAC systems:** The incumbent operates the multiple-zone air conditioning plant consisting of several centrifugal chillers with a capacity of approximately 3,000 tons and two reciprocating chillers with a capacity of 175 tons each, 4 computer room air conditioning units with a total capacity of 40 tons, and other air conditioning components such as condenser water systems, chilled water circulating systems and large air handling units that provide heating, ventilation, filtering, humidification and cooling to the entire medical center. Incumbent must be able to start, stop, and adjust all of the air conditioning equipment as needed in order to maintain required conditions of special areas **such as** clinical labs, research labs, bone marrow transplant unit, operating rooms, decentralized hospital computer equipment rooms, MRI, telephone and communication equipment rooms, etc. Incumbent is required to make hourly inspections of all operating equipment and records all findings such as compressor pressures, refrigeration temperatures, water temperatures, oil pressures, volt and ampere readings and other information pertinent to the safe and efficient operation of the equipment. Incumbent must check and adjust room temperatures and air handling unit temperatures as needed. Incumbent is required to perform operational checks on all equipment after repair and preventive maintenance. Incumbent is also required to have the ability to effectively function on the designated Energy Management Computer System in order to shut down equipment or systems to make repairs, correct problems, and check for proper operation of alarms. Work involves the adjustment and replacement of multi-level pressure reducing valves that feed steam to equipment. The Air Conditioning Operator must be alert to pre-alarm and alarm conditions to respond accordingly to prevent damage to expensive systems that serve critical patient care areas and to prevent down time. Incumbent adjusts, monitors and repairs steam operated hot water heaters located in equipment rooms remote from the boiler plant. Incumbent maintains and monitors the morgue unit cooler.

- **Operator in charge duties:** The Air Conditioning Equipment Operator assigned to shifts during other than day shift, Monday thru Friday, is in charge of the HVAC and refrigeration systems and equipment. The operator in charge duties require the Air Conditioning

Equipment Operator to respond immediately on irregular tours and weekends, to emergency situations relating to the malfunction of all building service equipment in the medical center such as plumbing, electrical, transport systems (vertical and horizontal), medical equipment, nurse call system, medical air systems, vacuum system, etc. The Air Conditioning Equipment Operator assesses the problem and takes action to bypass the trouble until corrective action has been completed by maintenance personnel. The incumbent has the responsibility on irregular tours and weekends to decide whether to shut down a particular system or equipment and what to operate to maintain the load in an emergency situation. The Air Conditioning Equipment Operator in charge is responsible for relaying instructions to the next shift operator including identifying any problems and actions taken on his shift. The incumbent also monitors, answers calls, troubleshoots, and resets the central fire alarm and smoke alarm systems. Incumbent operates the refrigeration equipment for cold storage and ice making consisting of individual refrigerators, walk-in type units and ice makers.

**- Preventive Maintenance and Emergency Maintenance:**

(1) In the maintenance of air conditioning and refrigeration equipment, the incumbent is required to have a Universal Refrigerant Certification in accordance with CFR Part 82, Subpart F, which authorizes him/her to install and recover refrigerants to include but not limited to R11, R12, R22, R502, R134A, R123, R404A, R409A and R408A. These refrigerants must be accounted for individually and the individual is spot checked by the EPA for adherence to regulations if warranted. Incumbent is required to operate and maintain refrigerant recovery equipment necessary to comply with EPA Clean Air Act and federal laws.

(2) Incumbent maintains and performs preventive maintenance on the environmental rooms located in Research & Development Service. These rooms require a specific climatic condition to be maintained for safekeeping of valuable research projects. In addition to these areas, the incumbent maintains the building service walk-in freezers and refrigerated rooms which house patient food and drink.

(3) Incumbent performs preventive maintenance inspections on HVAC systems and equipment including associated fire alarm devices as required. Proper maintenance is essential to prevent the spread of disease such as tuberculosis and Legionnaire's. Preventive maintenance includes tasks such as changing filters, cleaning strainers, ensuring proper chemicals are maintained in the cooling towers and chill water systems, lubricating and replacing broken drive belts on various equipment; replacing electrical components found to be defective such as motors, relays, capacitors, contactors, switches, thermostats, transformers, etc.

(4) Incumbent performs water chemistry test on HVAC systems to determine status of water treatment in both open and closed loop systems. Monitors chemical feed systems, adds chemicals as needed to maintain recommended limits. Incumbent troubleshoots and repairs the chemical feed systems.

- **Repair:** The incumbent is responsible for emergency troubleshooting and repair of approximately 3,000 tons of multi-zone air conditioning equipment with all necessary fans, pumps, cooling towers and controls required to condition approximately 969,000 square feet at the Murfreesboro campus and/or 689,000 square feet of space at the Nashville Campus. The Air Conditioning Operator is responsible for the repair of multiple pump and compressor systems such as primary chill water pumps, secondary chill water pumps, centrifugal chillers, and reciprocating chillers. Incumbent is also responsible for the servicing of all refrigerators, centrifuges, freezers, ice machines, etc. The incumbent is required at times to remove asbestos containing material in order to perform repair work to equipment or systems.

(1) Incumbent is responsible for the maintenance and repair of various air distribution components to include dual duct mixing boxes, variable air volume boxes, constant air volume boxes and direct digital control boxes, including the necessary pneumatic components, thermostats, relays and velocity controllers. The incumbent also repairs steam driven heat exchangers associated with reheat systems located throughout the facility. The incumbent also monitors the operation of steam driven condensate receivers that return condensates to the boiler feed system.

(2) Incumbent is required to make emergency repairs to the pneumatic tube system used to transport patient medications within the medical center. Repairs include but are not limited to the diverters, receiving stations on wards and in pharmacies, operation of the computer center used to help troubleshoot the system as well as to perform system purges and shutting down stations.

(3) Incumbent assists with contractor requested shutdowns of the HVAC, electrical and plumbing systems during irregular tours of duty. Coordinates complaints arising due to shutdowns with resident engineer in charge and makes necessary changes in operation of equipment to minimize the effect on patient care.

The incumbent performs any other tasks that are properly assigned. The Air Conditioning Equipment Operator must be alert to weather conditions affecting the medical center and has the responsibility to call in maintenance personnel for the removal of snow and ice from the roadways and walkways. The incumbent also performs on the snow detail to remove snow and ice for the safety patients, employees and the public.

#### **Factor I: Skill and Knowledge**

(1) Education and experience as a journeyman Air Conditioning Equipment Operator which indicates an extensive knowledge of the work practices, methods, and requirements of the refrigeration and air conditioning trades. Knowledge of the operating principles of steam, gas, diesel and electrically driven compressors and absorbers. A comprehensive trade knowledge of electrical theory in alternating current, direct current, and solid state circuitry is required.

(2) Knowledge of shop mathematics to calculate refrigerant required to repair equipment; estimate and order necessary duct work, etc. Ability to prepare requests for parts, materials, tools and services as needed to carry out work assignments.

(3) Broad practical knowledge of the principles underlying the work and other special or technical knowledge such as sheet metal work; electronic theory and design. Ability to use this knowledge in the maintenance of computerized systems such fire alarm duct detectors, refrigeration alarms, and HVAC (heating, ventilation, air conditioning).

(4) Knowledge of other trades such as pipefitting, electrical and plumbing. Knowledge of lubricants associated with refrigerants such as Polyester, mineral oil and poly alkaline glycol. This knowledge is imperative due to the number and complexity of the refrigerants used in the industry and to prevent major damage to the equipment.

(5) Skill in interpreting drawings, specifications, schematics, operator and parts manuals, etc. of varying degrees of complexity for complete systems such as the air conditioning equipment for the MRI space.

(6) Skill in troubleshooting complex air conditioning and refrigeration systems of unusual compressor arrangements and theories. The lack of developed documentation on prototype systems and equipment requires the Air Conditioning Equipment Operator to show ingenuity in the application of shop and trade practices to solve operating and repair problems.

(7) Ability to use or operate tools, equipment, or machines varying in difficulty. The Air Conditioning Equipment Operator must have the ability to operate the computerized HVAC and related systems.

(8) Mental application: Must keep abreast of all codes relating to the trade and be familiar with maintenance requirements on equipment and systems. The incumbent must be a certified refrigeration technician on the Universal Level.

(9) Knowledge of safe work practices, methods, standard operating procedures and processes is required. A high degree of accuracy and precision is required to prevent damage to equipment. Incumbent must be alert to the hazards of the job so as not to endanger his own safety or the safety of others.

(10) Incumbent must have a thorough knowledge of water chemistry as it relates to water treatment for HVAC systems. Knowledge of treatments used in both open and closed loop systems including testing procedures and calculation methods used to determine proper treatment levels to maintain chemical residuals needed to protect equipment and related connecting piping from corrosion.

(11) Incumbent is required to keep abreast of the operation of back up systems used in emergency situations including HVAC, electrical, plumbing applications.

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(12) Knowledge of operation of microprocessor controlled air conditioning equipment such as chillers, computer room systems, variable speed drives, etc.

### **Factor II: Responsibility and Supervisory Control**

The Air Conditioning Equipment Operator is under the technical supervision of the Air Conditioning Equipment Operator Supervisor. The incumbent receives little instruction on routine assignments. He exercises significantly more judgment and independence in determining the methods and techniques required to solve unusually complex operating and repair problems. Incumbent makes decisions as they relate to test equipment to be used, work sequences, and compliance with all safety, refrigeration and air conditioning trade codes.

### **Factor III: Physical Effort**

- (1) The duties of this position require physical exertion involving lifting, pushing, pulling, or carrying objects of varying weights, sizes and shapes.
- (2) Physical effort is exerted in walking, running, climbing, crawling, and bending.
- (3) Strain related to lack of movement such as standing in place, crouching, or stooping for extended periods of time.

### **Factor IV: Working Conditions**

- (1) Lighting, heating and ventilation in work area - Incumbent is exposed to heat, restricted ventilation and poor illumination in areas such as equipment rooms.
- (2) Weather conditions to which exposed when working outdoors - Incumbent is exposed to all weather conditions when working outside (cooling towers, roof, etc.).
- (3) Temperatures to which exposed in the work area - Incumbent is exposed to varying climatic conditions from an office, to environmentally controlled space, to excessive heat in the boiler plant.
- (4) Dust, grease, and soiling of clothing and skin surfaces - Incumbent is exposed to various hazardous materials in the course of performing work assignments. He is provided protective clothing, equipment and safety devices for his personal protection.
- (5) Noise and vibration - The equipment rooms are above the allowable decibel rating and hearing protection is provided.
- (6) Gases and fumes - Hazardous gases are in the work environment during various tasks. Respiratory protection is provided for the incumbent.

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(7) Hazards in the work environment - Incumbent is at risk of high-voltage electric shock; explosions of equipment or cables; injury from falls, burns, bruises and cuts. Incumbent works in crowded areas and around moving machinery. Incumbent also is required to work in patient areas which are contaminated with various diseases including HIV, TB, and is issued personal protective equipment/clothing to be worn. Incumbent may come in contact with asbestos containing materials during the performance of tasks; and is issued protective equipment/clothing which will allow for the incumbent to assist in the removal.