

## STAFFING

- 1. REASON FOR ISSUE:** To establish a Department of Veterans Affairs (VA) qualification standard for Biomedical Equipment Support Specialist, GS-1601, appointed under 38 U.S.C. § 7401(3) and 38 U.S.C. § 7405(a)(1)(B).
- 2. SUMMARY OF CONTENTS/MAJOR CHANGES:** This handbook contains mandatory procedures on staffing. This new qualification standard establishes the Biomedical Equipment Support Specialist occupation under VA's Title 38 Hybrid excepted service employment system in accordance with the authority established under the "Caregivers and Veterans Omnibus Health Services Act of 2010" (Public Law 111-163). Authority is given to the Secretary of the VA under 38 U.S.C. § 7402 to prescribe qualifications for occupations identified in or established under 38 U.S.C. § 7401(3) and 38 U.S.C. § 7405(a)(1)(B). This qualification standard is effective on the date of this publication, however no action may be taken to convert or promote employees until training and guidance is received. This new qualification standard will be incorporated into the electronic version of VA Handbook 5005 that is maintained on the [Office of Human Resources Management Web site](#).
- 3. RESPONSIBLE OFFICE:** The Recruitment and Placement Policy Service (059), Office of the Deputy Assistant Secretary for Human Resources Management.
- 4. RELATED DIRECTIVE:** VA Directive 5005, Staffing.
- 5. RESCISSIONS:** None.

**CERTIFIED BY:**

/s/  
Melissa S. Glynn,  
Ph.D. Assistant  
Secretary for  
Enterprise Integration

**BY DIRECTION OF THE  
SECRETARY OF  
VETERANS AFFAIRS:**

/s/  
Peter J. Shelby  
Assistant Secretary for  
Human Resources and  
Administration

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**NOTE:** This transmittal page accompanied the former VA Handbook 5005, Staffing publication. It is provided for reference to the establishment of this qualification standard.

**FORMER VA HANDBOOK REFERENCE:** PART II APPENDIX G49  
**EFFECTIVE DATE:** FEBRUARY 7, 2018

**BIOMEDICAL EQUIPMENT SUPPORT SPECIALIST  
QUALIFICATION STANDARD  
GS-1601  
Veterans Health Administration**

**1. COVERAGE.** The following are the requirements for appointment as a Biomedical Equipment Support Specialist (BESS) in the Veterans Health Administration (VHA). These requirements apply to all BESSs in the GS-1601 series. The work requires the application of engineering and mechanical concepts and methodology to provide life-cycle management and technical support of diagnostic, therapeutic devices, monitoring, and other equipment applicable in the practice of medicine, and to improve health service delivery systems for communities and within individual VA facilities (medical centers, outpatient clinics, domiciliaries). BESS work requires, in addition to knowledge and skill in engineering disciplines, a background in physiology and anatomy, and a practical facility in specialized subject matter areas such as computer applications, electronics, or mathematics.

**2. AUTHORITIES.**

- a. [P.L. 111-163, Caregivers and Veterans Omnibus Health Services Act of 2010;](#)
- b. [38 U.S.C. § 7401, Appointments in Veterans Health Administration;](#)
- c. [38 U.S.C. § 7402, Qualifications of appointees;](#)
- d. [38 U.S.C. § 7403, Period of appointments; promotions;](#)
- e. [38 U.S.C. § 7405, Temporary full-time appointments, part-time appointments and without-compensation appointments;](#)
- f. [38 U.S.C. § 7407, Administrative provisions for section 7405 and 7406 appointments.](#)

**3. DEFINITIONS**

a. **Appointing Official.** The Human Resources Management Officer is delegated appointing authority, to process and authenticate notifications of personnel actions, and authority to effect management-approved employment actions on behalf of officials, employees and facilities for which service is provided.

b. **Approving Official.** The Veterans Integrated Service Network (VISN) Director, Facility Director, or designee is the approving official and will determine whether to approve or disapprove the appointment of employees in the hybrid occupations.

c. **Journey Level.** The full performance level for this qualification standard is at the GS-11 grade level.

d. **Creditable Experience.** To be creditable, experience must demonstrate the use of knowledge, skills, and abilities associated with Biomedical Equipment Support. Experience may be acquired by paid or non-paid employment.

e. **Quality of Experience.** Experience is only creditable if it is either directly related to the position to be filled or in a related field (i.e. Biomedical Equipment Support Specialist, Biomedical Equipment Technician, Field Service Engineer, Medical Equipment Repairer, or IT Specialist in a healthcare setting). Experience satisfying this requirement may be paid or non-paid employment as a BESS in the parenthetical title as described in subparagraph 3 b. below.

f. **Part-Time Experience.** Part-time experience is creditable according to its relationship to the full-time work week. For example, one week of full-time credit is equivalent to two weeks of part-time work.

#### **4. BASIC REQUIREMENTS**

a. **Citizenship.** Citizen of the United States. After a determination is made that it is not possible to recruit qualified citizens, necessary personnel may be appointed on a temporary basis under authority of 38 U.S.C. 7405 without regard to the citizenship requirements of 38 U.S.C. 7402 or any other law prohibiting the employment of or payment of compensation to a person who is not a citizen of the United States. Candidates must meet all other requirements for the grade and position concerned.

b. **Experience and Education.** Associates degree in Biomedical Electronics Technology, Biomedical Equipment Technology or Biomedical Engineering Technology or in a related technical field such as Electronic Technology or Information Technology **and** two years of experience as a Biomedical Equipment Support Specialist, Biomedical Equipment Technician, Field Service Engineer, Medical Equipment Repairer, or Information Technology Specialist.

**Or,**

Bachelor's degree in Biomedical Engineering Technology or in a related field such as Electronics Engineering Technology (EET) or Information Technology.

**Or,**

Completion of a military training program in biomedical equipment **and** two years of experience as a Biomedical Equipment Support Specialist or Biomedical Equipment Technician, Field Service Engineer, Medical Equipment Repairer or Information Technology Specialist.

c. **Licensure/Certification/Registration.** None

d. **Grandfathering Provision.** All persons employed in VHA as a BESS on the effective date of this qualification standard are considered to have met all qualification requirements for the title, series and grade held, including positive education that is part of the basic requirements of the occupation. For employees who do not meet all the basic requirements in this standard, but who met the qualifications applicable to the position at the time they were appointed to it, the following provisions apply:

(1) Such employees may be reassigned, promoted up to and including the full performance (journeyman) level, or changed to lower grade within the occupation, but may not be promoted beyond the journeyman level or placed in supervisory or managerial positions.

(2) BESSs who are appointed on a temporary basis prior to the effective date of the qualification standard may not have their temporary appointment extended or be reappointed, on a temporary or permanent basis, until they fully meet the basic requirements of the standard.

(3) BESSs initially grandfathered into this occupation, who subsequently obtain additional education that meet all the basic requirements of this qualification standard must maintain the required credentials as a condition of employment in the occupation.

(4) Employees who are retained as a BESS under this provision and subsequently leave the occupation lose protected status and must meet the full VA qualification standard requirements in effect at the time of reentry as a BESS.

d. **Physical Requirements.** See VA Directive and Handbook 5019.

e. **English Language Proficiency.** Candidates will not be appointed under authority of 38 U.S.C. chapters 73 or 74, to serve in a direct patient-care capacity in VHA who is not proficient in written and spoken English. See Chapter 2, section D, paragraph 5a, this part.

**5. GRADE DETERMINATIONS.** In addition to the basic requirements for employment, the following criteria must be met when determining the grade of candidates:

a. **Biomedical Equipment Support Specialist, GS-5 (Entry Level)**

(1) **Experience or Education.** None beyond basic requirements.

(2) **Assignment.** This is an entry level BESS position. Employees at this level receive guidance from more experienced BESS staff members and require frequent direction from a supervisor. The incumbent acquires training from in-house as well as outside sources (e.g. attendance in community college courses, vendor service schools, conferences/seminars, etc.) to improve working knowledge of medical equipment, including current technology and future advances. This employee will provide support of basic medical equipment and systems to include, but not limited to: installation, preventive maintenance, troubleshooting, repair, calibrations and safety inspections.

b. **Biomedical Equipment Support Specialist, GS-7 (Developmental Level 1)**

(1) **Experience.** At least one year of experience equivalent to the GS-5 grade level.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Ability to read, interpret, and apply a great variety of technical data such as schematic drawings, wiring diagrams, table charts, mathematical expressions and formulas.

(b) Ability to learn equipment maintenance, operating procedures, and repair procedures from training materials and courses.

(c) Fundamental knowledge of electronics to include analog, digital and microprocessor theory, pneumatics, hydraulics, optics, electro-mechanics, physics, basic networking, and chemistry.

(d) Knowledge of the use of standard level test equipment to include, but not limited to, multi- meters, electrical safety analyzers, patient simulator, storage oscilloscopes, manometers, tachometers, etc.

(e) Knowledge of anatomy, physiology, medical terminology, medical equipment, and technology.

(f) Knowledge of basic networking, computer/server hardware/software and information technologies and computer virus protection software, available software patches and upgrades, and information security tools (i.e. Microsoft Office, Windows operating systems, McAfee, etc.).

(3) **Assignment.** Employees at this grade level serve as developmental BESSs and receive guidance from more experienced staff members. The incumbent acquires training from in-house as well as outside sources (e.g. attendance in community college courses, vendor service schools, conferences/seminars, etc.) to maintain and improve working knowledge of medical equipment, including current technology and future advances. This employee will provide support of medical equipment and systems to include, but not limited to: installation, preventive maintenance, troubleshooting, repair, reliability, calibrations and safety; supporting basic biomedical equipment such as but not limited to infusion pumps; PCA pumps, feeding pumps, suction pumps, defibrillators, clinical video systems, hypo/hyperthermia units, vital sign monitors, physiological monitors, dental equipment, and other patient care devices; performs and documents all repairs and preventive maintenance activities; and ensures that the data is correctly entered into the medical equipment management computer system. Utilizes schematic drawings, wiring diagrams, and technical manuals as guidelines for accomplishing work. Uses specialized electronic test gear or software to analyze, evaluate, diagnose, troubleshoot, calibrate or repair analog and digital microprocessor controlled, computerized or networked digital systems. Makes determinations as to whether systems are safe for patient and operator use and initiates appropriate corrective action when necessary. The specialist performs incoming inspections on new medical equipment and systems to determine that all government safety regulations, manufacturer's specifications, contract requirements, and needs of the user are met.

Contacts vendors and their representatives to obtain information on equipment and coordinate problem resolution. Monitors the quality of vendor service provided and ensures satisfactory and timely completion. Provides tactful instruction to equipment operators on the proper use of equipment to avoid use error recurrences; and documents appropriately; and instructs on operator level preventative maintenance. Provides biomedical equipment related technical training to peer and clinical staff.

**c. Biomedical Equipment Support Specialist, GS-9 (Developmental Level 2)**

(1) **Experience.** At least one year of experience equivalent to the GS-7 grade level.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Knowledge of electronics and electricity including analog and intermediate digital electronics to test, calibrate, maintain, and repair biomedical equipment and moderately complex biomedical instrumentation systems.

(b) Skill in the setup and use of standard and advanced level test equipment to perform precise and detailed analysis of the operating and design characteristics of equipment and initiate repairs, reconfiguration, or redesign of moderately complex medical systems.

(c) Skill in applying theory, concepts, techniques, design characteristics, operation, and functions to assist and support installation, operation, test, maintenance, repair, design, and modification for a comprehensive range of medical equipment connected to networks or other operating systems.

(d) Ability to evaluate practical and technical information from manufacturers, contract specifications, manuals, and historical data in order to perform analysis required to make effective recommendations concerning operation, maintenance, and repair of medical equipment.

(e) Ability to perform testing and troubleshooting of medical devices involving their interfaces and connections to other medical devices, clinical systems, or information systems either directly or through the hospitals hardwired and wireless networks.

(f) Ability to use application software and hardware as it relates to the operation and diagnostics of medical equipment.

(g) Knowledge of computer equipment with a wide variety of software to input and retrieve data as required, and to prepare a variety of specific working documents and forms such as spreadsheet, database, word processing, and other similar products.

(3) **Assignment:** Employees at this grade level serve as developmental level 2 BESSs and receive minimal guidance from more experienced staff members. This employee will provide support of medical equipment and systems, install, maintain, safety test, calibrate, troubleshoot, and support medical technologies such as sleep lab monitoring systems, GI endoscopic

systems, dental imaging equipment, surgical equipment, and clinical laboratory equipment. Performs and documents all repairs and preventive maintenance activities and ensures that the data is correctly entered into the medical equipment management computer system. Utilizes schematic drawings, wiring diagrams, and technical manuals as guidelines for accomplishing work. Maintains inventory documentation of assigned networked- attached medical equipment/systems to include electronic protected health information (ePHI) requirements, Virtual Local Area Network (VLAN), IP addresses, Access Control Lists (ACL), anti-virus software, and other necessary information. Provides biomedical equipment related technical training to peer and clinical staff.

**d. Biomedical Equipment Support Specialist, GS-11 (Full Performance Level)**

(1) **Experience.** At least one year of experience equivalent to the GS-9 grade level. Certification as a Certified Biomedical Equipment Technician (CBET), Certified Laboratory Equipment Specialist (CLES), Net+ and A+ are highly desirable at this level but not required.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Knowledge of a wide range of sciences including, but not limited to, electronics (analog and digital), computer science/networking, mechanical engineering design, pneumatics, hydraulics, chemistry, physiology, medical terminology, anatomy, optics, and biology to perform duties of a broad scope and nature on complex and sophisticated patient-related medical systems and sub-systems.

(b) Ability to perform advanced testing and troubleshooting of medical devices involving their interfaces and connections to information systems either directly or through the hospitals hardwired and wireless networks.

(c) Knowledge of codes and standards relevant to safe operation of medical instrumentation such as National Fire Protection Association (NFPA), Food and Drug Administration (FDA), Nuclear Regulatory Commission (NRC), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI).

(d) Skill in the use of all types of test and calibration equipment such as digital multi-meters, electrical safety analyzers, defibrillator analyzers, patient simulators, digital oscilloscopes, pulse generators, and Local Area Network (LAN) analyzers in performing troubleshooting/repair and preventive maintenance activities.

(e) Ability to configure and maintain medical servers and desktop computers.

(f) Knowledge of contracting regulations, requirements, and specific contract specifications including performance-based contracts.

(3) **Assignment.** Responsible for the life-cycle management of diagnostic, therapeutic, and other patient related medical equipment and systems. Performs routine and complex tasks

involved in the installation, maintenance, modification, troubleshooting and calibration of complex therapeutic, diagnostic and life support biomedical equipment. Responsible for monitoring system backups, file integrity, ensuring network connectivity between systems, servers, databases, and the electronic medical record. Must be able to reload operating systems and clinical application software in the event of a system failure and interface with Office of Information and Technology (OI&T) locally and at other sites to keep systems operational. Conducts pre-purchase evaluations and addresses pre-implementation security issues to ensure that medical device isolation architecture (MDIA) requirements are met. Serves as project leader for equipment installation to include but not limited to: discussing contract requirements and concerns with the architect/engineer and contractor; identifying the site requirements, preparing cost analysis and justifications, preparing site plans and progress reports; acting as the project coordinator during installation, testing phases and through to completion of the project to include acceptance testing, planning and coordinating work schedules with other services, arranging utility shutdowns; identifying and ordering materials and arranging for assistance from other trades and crafts as necessary. Responds appropriately to hazard recall notifications concerning medical equipment. Investigates equipment incidents and alerts, cases of equipment damage and abuse, equipment failure reports that cannot be duplicated and medical device security incidents. May be a member of a Root Cause Analysis (RCA) team when appropriate. May serve as a Contracting Officer Representative (COR) for the purchase of medical equipment, maintenance/repair contracts, and facility projects. This work includes but is not limited to; drafting Request for Proposal (RFP) language, Sole-source justifications, Statements of Work (SOW), conducting market research, product evaluations, evaluating contractor performance, and pre-procurements assessments. Consults and advises clinical and administrative staff in evaluating medical equipment proposed for purchase. Determines when healthcare technology, instrumentation, or systems are obsolete, hazardous and/or not cost effective to maintain. Performs incoming inspections on new and unfamiliar medical equipment and systems upon receipt to determine that all government safety regulations, manufacturer's specifications, contract requirements are met. Attends training from in-house as well as outside sources (e.g. attendance in community college courses, vendor service schools, conferences/seminars, etc.) to maintain and improve working knowledge of medical equipment, including current technology and future advances. Provides biomedical equipment related technical training to peer and Developmental BESS's as well as clinical staff.

**e. Biomedical Equipment Support Specialist (Biomedical Information Systems), GS-12**

(1) **Experience.** At least one year of specialized experience equivalent to the GS-11 grade level.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Current knowledge of computer virus protection software, available software patches and upgrades, and information security tools.

(b) Expert knowledge of electronics, computer and networking theory with experience maintaining, interfacing and troubleshooting networked medical equipment to include VLAN configuration, IP addressing, sub-netting, and network security.

(c) Ability to utilize and maintain computer and server based medical equipment, medical record databases, and proprietary and generic software, Experience with TCP/IP, HL7, networking, network security, and DICOM standards.

(d) Ability to interpret, identify, and apply network engineering principles and practices where there often times is no previous example to follow, or precedence.

(e) Skill to distinguish networking problems from non-networking problems and discuss various options with IT networking and operations staff members.

(3) **Assignment.** For all assignments above the full-performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time. Manages complete systems of central computerized networks, databases, analytic servers and medical device networks. Implements and plans for new or emerging technologies such as new diagnostic modalities, network management and storage appliances, virtual data centers and associated software. Coordinates and provides technical and project oversight of CIS, ARK, Imaging, and similar biomedical information systems (e.g., analytics, data bridge interface, anesthesia record keeping, cardiology information systems, and diagnostic medical imaging systems). Coordinates with OI&T for functionality, space availability, maintenance and replacement of server(s), and facilitating infrastructure updates and upgrades for servers, operating system problems, and virus protection. May manage entire data center dedicated to medical device servers. Identifies and troubleshoots issues related to VLAN configuration, IP addressing, sub-netting, HL7 messaging, DICOM standards, and network security to minimize downtime. Most systems are server based with special requirements both in scope of attention and environmental security concerns. Examples of typical devices or systems include, but is not limited to, Computerized Voice Recognition systems, Picture Archiving and Communication Systems (PACS) (Dental, Ophthalmology, Radiology & Cardiology PACS), and patient data management systems. Evaluates compatibility and adaptability of the biomedical devices for integration over the medical center's local area network (LAN) and wide area network (WAN). Maintains documentation of assigned medical IT equipment/systems to include ePHI requirements, VLAN, IP addresses, anti-virus software, security, and other necessary information. Addresses pre-implementation security issues to ensure that medical device isolation architecture (MDIA) requirements are met. Regularly reviews available software patches/updates and virus software updates for applicability to medical IT equipment. Coordinates with other BESSs, manufacturers, informatics, and IT staff to complete required software updates and system/data backups. Ensures compliance of networked attached clinical systems to all Medical Device Protection Program (MDPP) requirements. Designs, implements and manages appropriate security measures and disaster recovery plan that is critical to ensure system uptime and prevent loss of patient data from critical computerized

databases and operating systems. May participate in VISN wide projects to provide their expertise in medical device isolation architecture (MDIA), Biomedical Server Virtualization, storage of Protected Health Information (PHI). May serve as a Contracting Officer Representative (COR) for the purchase of medical equipment, maintenance/repair contracts, and facility projects. This work includes but is not limited to; drafting Request for Proposal (RFP) language, sole-source justifications, Statements of Work (SOW), conducting market research, product evaluations, evaluating contractor performance, and pre-procurements assessments.

**f. Biomedical Equipment Support Specialist (Imaging), GS-12**

(1) **Experience.** At least one year of experience equivalent to the GS-11 grade level. Certification as a Certified Radiology Equipment Specialist (CRES) is highly desirable at this level however it is not required.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Knowledge of codes and standards relevant to safe operation of radiation producing medical devices such as National Fire Protection Association (NFPA), Food and Drug Administration (FDA), Nuclear Regulatory Commission (NRC), The Joint Commission (TJC), American College of Radiology (ACR), Center for Devices and Radiological Health (CDRH) and The Association for the Advancement of Medical Instrumentation (AAMI).

(b) Comprehensive knowledge of imaging techniques, technologies, radiological practices and procedures.

(c) Skill in using advanced radiological test equipment such as radiation dosimeters, calibration phantoms, high voltage testing devices, KV and MA meters and monitor calibration devices.

(d) Ability to resolve highly complex breakdowns that have an immediate risk to patient safety.

(e) Ability to maintain and troubleshoot networked medical imaging equipment to include VLAN configuration, IP addressing, sub-netting, and network security, and build, configure, repair and install workstations and servers in imaging and non-imaging environments.

(f) Ability to utilize and maintain computer and server based medical equipment, medical record databases, and proprietary and generic software, experience with TCP/IP, HL7, networking, and DICOM standards.

(3) **Assignment.** For all assignments above the full-performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be

performed by the incumbent at least 25% of the time. The incumbent may be responsible for the complete systems management of computerized/networked imaging systems and databases and their inter-connectivity with PACS, related modalities and the Electronic Medical Record (EMR). Utilizes specialized diagnostic software, specialized quality assurance tools and measuring equipment, detailed technical literature, and standard electronic and computer test equipment. Ensures required software updates and backups are completed to maintain continued functionality of equipment, patient safety, and data integrity. The incumbent assists in designing and implementing best approaches to recovery of critical computerized databases and operating systems. The incumbent should be considered a technical expert on one or more advanced imaging system and may provide input to the VISN High-Cost/High-Tech Committee, may serve as a VISN or national technical resource as needed. Advises clinicians and management regarding the acquisition, integration, and application of medical imaging technologies. Participates in the acquisition, technical requirements and evaluations, project planning and deployment of medical imaging systems. May serve as a Contracting Officer Representative (COR) for purchase of medical equipment, maintenance/repair contracts, and facility projects. He/she is responsible for coordinating with the facility stakeholders including but not limited to medical staff, clinical personnel, Biomedical Engineering, OI&T, service managers, Patient Safety, senior salespeople and equipment manufacturers on procurement related or technical issues.

**g. Biomedical Equipment Support Specialist, GS-12**

(1) **Experience.** One year of experience equivalent to the GS-11 grade level.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Knowledge of VA, NFPA, FDA, NRC, The Joint Commission, and other relevant safety and radiation safety standards.

(b) Ability to lead biomedical staff and work on medical equipment if needed to maintain compliant workflow.

(c) Knowledge of project management principles required to effectively and efficiently manage multiple, concurrent projects.

(d) Skill in communication to interact with clinical, technical and managerial staff.

(e) Ability to instruct staff, lead individuals, manage priorities, and schedule work assignments.

(3) **Assignment.** For all assignments above the full-performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time. The Lead BESS works in support of

the BESS management team. Distributes and prioritizes workload among employees in accordance with established workflow and/or job specializations. Revises work schedules to meet anticipated and unanticipated changes in the workload. Assigns daily work to staff, establishing priorities based on workload related to BESS. Prepares estimates and reports on expected time of completion of work. Reviews progress of work assignments and modifies as needed and checks completed work for accuracy. Ensures SOPs and mandates are followed during the performance of workflow. Instructs employees on work-related activities, policies, procedures and goals. Implements the Biomedical Section training program, in-house cross training, and vendor training, to ensure that technicians are kept abreast of the changing technology as effectively as possible within the available resources. May participate in VISN wide projects to provide their expertise in a particular technology. The incumbent may provide input to the VISN High-Cost/High-Tech Committee and capital investment proposals, and may serve as a VISN technical resource. Provides information to management officials concerning performance issues, assignment changes and task completion. Responds and supports resolution of customer service concerns.

#### **h. Supervisory Biomedical Equipment Support Specialist, GS-12**

(1) **Experience.** At least one year of experience at the GS-11 grade level that demonstrates the technical competencies described at that level. Certification as a Certified Healthcare Technology Manager (CHTM) is highly desirable at this level but not required.

(2) **Demonstrated Knowledge, Skills, and Abilities.** In addition to meeting the KSAs for the GS-11 level, the candidate must demonstrate all of the following KSAs and demonstrate the potential to acquire the assignment-specific KSAs designated by an asterisk (\*):

(a) Advanced knowledge of Healthcare Technology Management across multiple types of equipment modalities to provide guidance and training to Healthcare Technology Management staff;

(b) Skill in managing Healthcare Technology Management work flow and directing the work of others to accomplish programs goals and objectives.

(c) Ability to develop policy, manage medical equipment life-cycle processes, and provide workload analysis in Healthcare Technology Management operations.

(d) Knowledge of interpersonal relations and conflict resolution to deal effectively with individuals or groups representing widely divergent backgrounds, interests, and points of view.

(e) Ability to analyze Healthcare Technology data and make recommendations to optimize quality, efficiency, performance, and productivity within service.

\*f) Ability to perform the full range of supervisory duties which would include responsibility for assignment of work to be performed; assessments of competency; evaluation of performance; selection of staff; and recommendation of awards, advancements, and disciplinary actions.

(3) **Assignments.** For all assignments above the full-performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time. Supervisory BESS at this level are generally found in Complexity Level 2 (Medium Complexity) or Complexity Level 3 (Low Complexity) facilities. Although uncommon, they may also be found in a Complexity Level 1 facility. The Supervisory BESS is responsible for the supervision, administrative management, and direction of lower level BESS. The incumbent supports the Chief Biomedical Engineer with assisting in the administrative and professional responsibilities of planning and directing the Biomedical Engineering/Healthcare Technology Management staff activities for the service or equivalent unit at an independent outpatient clinic. Incumbent may have full supervisory responsibility over a section or equivalent work unit if there is not a Biomedical Engineer at the facility. Typical duties may include: preparing work assignments, monitoring technical performance of some Biomedical Engineering staff, conducting performance appraisals, and other department and administrative responsibilities to ensure that the mission of the service and the medical center has been satisfied. The supervisor assures compliance with accrediting agencies and regulatory requirements, establishes and monitors the quality of the pre-analytical processes as part of the overall Biomedical Engineering service quality management program, and assures corrective action is initiated as needed. The supervisor assures orientation and competency assessment of assigned staff. Develops policies and procedures, manages document control, develops performance standards, position descriptions and functional statements. They may be responsible for professional and administrative management of an assigned area to include budget execution. The supervisor maintains interdepartmental relations with other services to accomplish medical center goals.

**i. Supervisory Biomedical Equipment Support Specialist, GS-13**

(1) **Experience.** At least one year of experience at the GS-12 grade level that demonstrates the technical competencies described at that level.

(2) **Demonstrated Knowledge, Skills, and Abilities.** In addition to meeting the KSAs at the GS-12 grade level, the candidate must demonstrate all of the following KSAs and demonstrate the potential to acquire the assignment-specific KSAs designated by an asterisk (\*):

(a) Ability to work independently to set priorities, delegate tasks, meet multiple deadlines, analyze organizational problems, and develop and implement effective solutions to optimize quality, efficiency, performance, and productivity within the service.

(b) Ability to develop policy; manage medical equipment life-cycle processes; and provide workload analysis in Healthcare Technology Management operations.

(c) Ability to translate management goals and objectives into well-coordinated and controlled biomedical work operations.

\*(d) Ability to perform the full range of supervisory duties which would include responsibility for assignment of work to be performed; assessments of competency; evaluation of performance; selection of staff; and recommendation of awards, advancements, and when appropriate, disciplinary actions.

(3) **Assignments.** For all assignments above the full performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time. Supervisory Biomedical Engineering Support Specialists are generally found in Complexity Level 1 (High Complexity) facilities. The supervisory BESS is responsible for the supervision, administrative management, and direction of lower level BESSs. The incumbent supports the Chief Biomedical Engineer with assisting in the administrative and professional responsibilities of planning and directing the Biomedical Engineering/Healthcare Technology Management staff activities for the service or equivalent unit at an independent outpatient clinic. Incumbent may have full supervisory responsibility over a section or equivalent work unit if there is not a Biomedical Engineer at the facility. Typical duties may include: preparing work assignments, monitoring medical equipment life-cycle management performances of Biomedical Engineering/Healthcare Technology Management staff, conducting performance appraisals, and other technical and administrative responsibilities to ensure that the mission of the service and the medical center has been satisfied. The supervisor assures compliance with accrediting agency and regulatory requirements; establishes and monitors the quality of the pre-analytical processes as part of the overall Biomedical Engineering service quality management program, and assures corrective action is initiated as needed. The supervisor assures orientation and competency assessment of assigned staff. The supervisor develops policies and procedures, manages document control, develops performance standards, position descriptions and functional statements. They may be responsible for professional and administrative management of an assigned area to include budget execution. The supervisor will maintain interdepartmental relations with other services to accomplish medical center goals.

**j. Biomedical Equipment Support Specialist, GS-13 (VISN Level) or Biomedical Equipment Support Specialist (Geographical Regional Technical Specialist), GS-13**

(1) **Experience.** At least one year of experience equivalent to the GS-12 grade level. Certification as a Project Manager highly desired but not required.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Ability to effectively communicate with professionals of varying levels of technical knowledge within multiple levels of the VHA organization.

(b) Ability to coordinate work across multiple settings, e.g., medical centers, VISNs.

(c) Knowledge of the codes and standards of VA, TJC, NFPA, AAMI, FDA, and AHA as they apply to the safety and operation of medical instrumentation.

(d) Knowledge related to the characteristics, capabilities, installation, and configuration of medical equipment and their associated networks.

(e) Ability to analyze regional technical issues and develop timely and economical solutions.

(3) **Assignment.** For all assignments above the full performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time. The incumbent supports medical technology systems in multiple facilities in a geographic region. The incumbent provides maintenance and technology management support to the facilities both remotely and on-site as needed. May participate in regional (e.g. VISN- wide) medical technology projects to provide technical and Biomedical Engineering expertise. The incumbent may draft RFP requirements; translating clinical needs into technical specifications. The incumbent may provide input on healthcare technology to the regional High-Cost/High-Tech or other equipment committees. He/she is responsible for coordinating with the regional and facility stakeholders including but not limited to medical staff, clinical personnel, Biomedical Engineering, OI&T, Facilities Engineering, Patient Safety, Logistics, Contracting, and equipment manufacturers on procurement related or technical issues. Incumbent may provide technical support and/or advice to the national VHA Healthcare Technology Management Program Office as needed.

**k. Biomedical Equipment Support Specialist, GS-13 (National Level)**

(1) **Experience.** At least one year of experience equivalent to the GS-12 grade level. Certification as a Project Manager highly desired but not required.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate all of the following KSAs:

(a) Ability to recommend and review policies and/or directives regarding medical technology.

(b) Ability to effectively communicate and coordinate work across multiple settings, e.g. medical centers, VISNs, VACO.

(c) Knowledge of the codes and standards of VA, TJC, NFPA, AAMI, FDA, and AHA as they apply to the safety and operation of medical instrumentation.

(d) Knowledge related to the characteristics, capabilities, installation, and configuration of medical equipment and their associated networks.

(e) Ability to analyze national and VISN-level technical issues and develop timely and economical solutions.

(3) **Assignment.** For all assignments above the full performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time. The incumbent supports medical technology systems that span across multiple regions in the VHA organization. The incumbent provides maintenance and technology management support nationally across VHA both remotely and on-site as needed. He/she provides assistance and technical support to the regional BESS as needed. The incumbent participates in national workgroups and projects to provide technical and Biomedical Engineering expertise. Assists with drafting and reviewing national policies and procedures for VHA-wide implementation. The incumbent may draft RFP (request for proposal) requirements; translating clinical needs into technical specifications. The incumbent may provide input on healthcare technology to the national Healthcare Technology Management Program Office on High-Cost/High-Tech requests. He/she is responsible for coordinating with national, regional and facility stakeholders including but not limited to medical staff, clinical personnel, Biomedical Engineering, OI&T, Facilities Engineering, Patient Safety, Logistics, Contracting, and equipment manufacturers on procurement related or technical issues.

## **6. DEVIATIONS**

a. An approving official may, under unusual circumstances, approve reasonable deviations to the grade determination requirements for an employee whose composite record of accomplishments, performance, and qualifications, as well as current assignment, warrants such action based on demonstrated competence to meet the requirements of the proposed grade.

b. Under no circumstances will education requirements be waived.

c. The placement of individuals in grade levels or assignments not described in this standard must be approved by the Under Secretary for Health or designee in VHA Central Office prior to placement in the position.

**RESPONSIBLE OFFICE:** Human Resources and Administration/Operations, Security and Preparedness (HRA/OSP) (006), Office of the Chief Human Capital Officer (OCHCO) (05), Recruitment and Placement Policy Service (059)