STAFFING

1. **REASON FOR ISSUE:** To revise the Department of Veterans Affairs (VA) qualification standard for Therapeutic Radiologic Technologist (TRT), GS-0648, appointed under 38 U.S.C. § 7401(3), Appointments in Veterans Health Administration, and 38 U.S.C. § 7405(a)(1)(B), Temporary full-time appointments, part-time appointments, and without-compensation appointments.

2. **SUMMARY OF CONTENTS/MAJOR CHANGES:** This handbook contains mandatory procedures on staffing and separates the TRT qualification requirements in VA Handbook 5005, Part II, Appendix G26. The pages in this issuance replace the corresponding page numbers in VA Handbook 5005, Appendix II-G26. These changes will be incorporated into the electronic version of VA Handbook 5005 that is maintained on the [Office of the Chief Human Capital Officer website](https://www.va.gov) and the [VA Publications website](https://www.va.gov). Significant changes include:

   a. Changing the full performance level from the GS-8 to the GS-9 grade level.

   b. Removing the GS-5 grade level and raising the entry level to the GS-6 grade level.

   c. Removing the successful completion of a four-year baccalaureate degree program in radiation therapy or other health related field as a suitable substitution for experience at the GS-6 level.

   d. Removing the Therapeutic Radiological Technologist (Dosimetrist) qualification standards from Appendix G26 and incorporating them in VA Handbook 5005, Part II, Appendix G66.

3. **RESPONSIBLE OFFICE:** Recruitment and Placement Policy Service (059), Office of the Chief Human Capital Officer.

4. **RELATED DIRECTIVE:** VA Directive 5005, Staffing.


**CERTIFIED BY:**

/s/
Karen L. Brazell  
Principal Executive Director, Office of Acquisition, Logistics and Construction and Chief Acquisition Officer, Performing the Delegable Duties of the Assistant Secretary for Enterprise Integration

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

/s/
Daniel R. Sitterly  
Assistant Secretary for Human Resources and Administration/Operations, Security and Preparedness

**DISTRIBUTION:** Electronic Only
APPENDIX G26. THERAPEUTIC RADIOLOGIC TECHNOLOGIST QUALIFICATION STANDARD

GS-0648

Veterans Health Administration

1. COVERAGE. The following are the requirements for appointment as a Therapeutic Radiologic Technologist (TRT) in the Veterans Health Administration (VHA). TRTs assist in the localization of tumors and deliver high doses of ionizing radiation as prescribed by the radiation oncologists. These requirements apply to TRTs in the General Schedule (GS)-0648 series who are certified in therapeutic radiologic technology by the American Registry of Radiologic Technology (ARRT). Appendix G66 outlines the qualification standards for TRTs who are certified medical dosimetrists responsible for a treatment plan and assigned to functional statements outlining those specific duties.

2. DEFINITIONS.

a. Journey Level. The full performance level for this qualification standard is the GS-9 grade level.

b. Creditable Experience. To be creditable, the experience must have required the use of knowledge, skills, abilities, and other characteristics (KSAs), also referred to as core competencies associated with current therapeutic radiologic technology practices.

c. Part-Time Experience. Part-time experience as a TRT is creditable according to its relationship to full-time workweek. For example, a TRT would receive one week of full-time credit for each two weeks of half-time work.

d. Quality of Experience. Experience is only creditable if it is post-certification (as noted in paragraph 3c below) experience as a TRT directly related to the position being filled. Qualifying experience must be at a level comparable to TRT experience at the next lower grade level. For all assignments above the full performance level, the higher-level duties must consist of significant scope, administrative independence, complexity and range of variety as described in this standard at the specified grade level and be performed by the incumbent at least 25% of the time. Experience as a graduate TRT is creditable provided the candidate functioned as a TRT and subsequently passed the certification examination.

e. TRT Professional Definitions. Specialized areas of therapeutic radiologic technology include basic and complex therapeutic treatment delivery, simulation, advanced treatment delivery modalities and mold room.
(1) **Basic and Complex Therapeutic Radiologic Treatment Delivery.** The practice of radiation therapy is performed by healthcare professionals responsible for the administration of ionizing radiation for treating diseases, primarily cancer. Radiation therapy requires an interdisciplinary team of radiation oncologists, radiation therapists, medical radiation physicists, medical dosimetrists, and nurses. The radiation therapist administers the radiation to the patient throughout the course of treatment. Radiation therapy integrates scientific knowledge, technical competence, and patient interaction skills to provide safe and accurate treatment with compassion. A radiation therapist recognizes patient conditions essential for the successful completion of simulation and treatment. Radiation therapists must demonstrate an understanding of human anatomy, human physiology, pathology and medical terminology. In addition, comprehension of oncology, radiobiology, radiation physics, radiation oncology techniques, cross sectional anatomy, radiation safety and the psychosocial aspects of cancer are required. They must maintain a high degree of accuracy in positioning and treatment techniques. TRTs must possess, use and maintain knowledge about radiation protection and safety. They assist the radiation oncologist to localize the treatment area and deliver high doses of ionizing radiation as prescribed by the radiation oncologist. The basic treatment deliveries consist of two-dimensional and three-dimensional treatment plans. The complex treatment deliveries consist of the advanced treatment delivery modalities as listed below and new emerging technologies on the horizon.

(2) **Simulation.** Simulation utilizes multiple imaging modalities to generate images of the human anatomy with emphasis placed on areas relevant to the treatment fields. This includes selecting and designing multiple types of positioning and immobilization devices to maximize accuracy for reproducibility during treatment process. During simulation the TRTs address complications brought about by the patient’s condition and disease process. These images obtained through the simulation procedure are transferred to dosimetry for a reproducible deliverable treatment plan. Precise documentation of the procedure and set-up are essential for accuracy of the prescribed treatment.

(3) **Advanced Treatment Delivery Modalities:** Advanced treatment delivery modalities consist of the most advanced techniques, the current state of the art, and standard care provided in the community. These include:

(a) Intensity Modulated Radiation Therapy (IMRT)

(b) Imaged Guided Radiation Therapy (IGRT)

(c) Volumetric Modulated Arc Therapy (VMAT)

(d) Stereotactic Body Radiation Therapy (SBRT)
(e) Stereotactic Radiosurgery (SRS)

(f) Stereotactic Radiotherapy (SRT)

(g) High Dose Rate Brachytherapy (HDR)

(h) Low Dose Rate Brachytherapy (LDR)

(i) 4D Simulation

(j) Gated Radiation Therapy

(k) Deep Inspiration Breath Hold (DIBH)

(l) Optical Surface Imaging System (OSIS)

(4) Mold Room. Mold room technology utilizes materials and methodologies to design and fabricate molds as prescribed by the radiation oncologist. Mold room functions are varied and dependent on complexity and facility needs which may include electron cut outs, blocking, and other specialized devices.

3. BASIC REQUIREMENTS.

a. Citizenship. Be a citizen of the United States (U.S.). Non-citizens may be appointed when it is not possible to recruit qualified candidates in accordance with 38 U.S.C. § 7407(a).

b. Education. Individuals must have successfully completed a program in therapeutic radiologic technology, evidenced by a certificate or an associate’s or higher degree accredited by the Joint Review Committee on Education in Radiologic Technology or other accrediting bodies recognized by the U.S. Department of Education (ED) and the subsequent completion of a 12-month ED accrediting body-approved program in therapeutic radiologic technology.

Public Law 97-35 requires that persons who administer radiologic procedures meet the credentialing standards in 42 C.F.R. Part 75. They must have successfully completed an educational program meeting or exceeding the standards described in that regulation and is accredited by an organization recognized by the ED, and be radiation therapists certified by the ARRT in Radiation Therapy (T).

c. Certification. All applicants must be certified in therapeutic radiologic technology by the ARRT in Radiation Therapy (ARRT (T)).

(1) All applicants must be certified in therapeutic radiologic technology by the ARRT in Radiation Therapy (ARRT (T)).

(2) Exception.
(a) Non-certified applicants who otherwise meet the eligibility requirements for TRT certification may be given a temporary appointment under 38 U.S.C. § 7405 (a)(1)(B) for up to one year at the entry level only as a graduate TRT under the authority of 38 U.S.C. § 7405 (c)(2)(B).

(b) Graduate TRTs may only be appointed at the entry grade level and may not be promoted/converted until certification is obtained.

(c) Temporary graduate TRT appointments may not be extended beyond one year or converted to a new temporary appointment.

(d) **Failure to Obtain Certification.** In all cases, TRTs must actively pursue meeting the requirements for certification starting from the date of their appointment. Failure to become certified within one year from the date of appointment will result in removal from the GS-0648 TRT series and may result in termination of employment.

(3) **Loss of Certification.** Once certified, a TRT who fails to maintain the required certification must be removed from the occupation, which may result in termination of employment.

d. **Grandfathering Provision.** All persons employed in VHA in this occupational series or in another occupational series that are also performing the duties as described in the qualification standard are considered to have met all qualification requirements for the grade held, including positive education and licensure/certification/registration that are part of the basic requirements of the occupation. For employees who do not meet all the basic requirements required 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) Employees in an occupation not requiring a licensure/certification/registration, may be reassigned, promoted or demoted within the occupation.

(2) Employees in an occupation requiring a licensure/certification/registration, may be reassigned, promoted up to and including the full performance level, or demoted within the occupation, but may not be promoted beyond the full performance level or placed in supervisory or managerial positions.

(3) Employees in an occupation requiring a licensure/certification/registration only at higher grade levels must meet the licensure/certification/registration requirement before they can be promoted to those higher-grade levels.

(4) Employees 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.
(5) Employees initially grandfathered into this occupation, who subsequently obtain additional education and/or licensure/certification/registration that meet all the basic requirements of this qualification standard must maintain the required credentials as a condition of employment in the occupation.

**NOTE:** Each uncertified TRT permanently employed on June 21, 1986, and whose competence in the safe administration of ionizing radiation was affirmed, in writing, by a VA licensed physician not later than January 1, 1987, is considered fully qualified. These employees may be promoted, up to and including the journey level, demoted or reassigned within the GS-0648 occupational series. Any employee initially retained in this manner who leaves this job series loses protected status and must meet the full requirements in effect at the time of reentry.


f. **English Language Proficiency.** TRTs must be proficient in spoken and written English. See 38 U.S.C. § 7403(f).

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

a. **Therapeutic Radiologic Technologist, GS-6**

   (1) **Experience.** None above the basic requirements.

   (2) **Assignment.** Employees at this grade level serve as a staff TRT in an entry-level developmental position. They complete basic radiation therapy and basic clinic duties. They receive guidance and oversight from experienced staff members and require direct supervision.

   (3) **Demonstrated Knowledge, Skills, and Abilities (KSA):** None at this level.

b. **Therapeutic Radiologic Technologist, GS-7**

   (1) **Experience.** At least one year of experience equivalent to the next lower grade level directly related to the position being filled.

   (2) **Assignment.** TRTs at this grade level serve as a staff TRTs in a developmental position. They perform a substantially full range of basic clinical duties and basic treatment delivery modalities, but receive guidance, direct oversight, and directions regarding complex treatment delivery, unfamiliar, or unusual situations for complex patient clinical issues. Assignments at this level include setting up of the treatment room with prescribed immobilization devices and; supplies for each individual patient before treatment and treating basic and some advanced radiation treatment modalities on a linear accelerator. TRTs perform daily quality
measures, machine warm up procedures, interpretation of output levels compared with established thresholds and other assignments.

(3) **Demonstrated Knowledge, Skills, and Abilities.** Candidates must demonstrate all the KSAs below:

(a) Knowledge to set-up the treatment room to deliver basic and some complex radiation treatments on a linear accelerator, as prescribed by the radiation oncologist.

(b) Knowledge of machine warm up procedures for interpreting output levels compared with established thresholds and radiation safety principles.

(c) Ability to perform patient chart reviews using an electronic medical record and using the Record and Verify System or other similar treatment delivery systems.

(d) Knowledge of operating computed tomography (CT) Simulator to perform simulations that is demonstrated by following directives, designing custom immobilization for reproducible set-ups, obtaining optimal imaging, and completing accurate and precise patient documentation.

(e) Skill in communicating all aspects of patient care with the radiation oncology team.

(f) Knowledge of utilizing an on-board imaging system (i.e., Linac's or comparable system) to interpret the images.

(g) Skill in performing radiation safety practices including when to report discrepancies and ensuring compliance with regulatory requirements, quality standards, accrediting agencies, policies and department standard operating procedures.

c. **Therapeutic Radiologic Technologist, GS-8**

(1) **Experience.** At least one year of experience equivalent to the next lower grade level that demonstrates the knowledge, skills, and abilities/core competencies described at that level.

(2) **Assignment.** Staff TRTs at this developmental level perform a substantially full range of basic clinical duties and basic treatment delivery modalities. They will receive guidance and directions regarding most complex treatment delivery modalities, and unfamiliar or unusual situations for complex patient clinical issues. Assignments at this level include but are not limited to set-up of the treatment room with prescribed immobilization devices and supplies for each individual patient before treatment. They deliver treatments providing basic and some advanced radiation treatment modalities on a linear accelerator. Staff
TRTs conduct daily quality measures, machine warm up procedures, interpretation of output levels compared with established thresholds and other assignments. Regardless of the nature of the specific assignment, the work must be of sufficient scope and complexity to meet the knowledge, skills, and abilities to perform at this level.

(3) **Demonstrated Knowledge, Skills and Abilities.** Candidates must demonstrate all the KSAs below:

(a) Skill in setting up the treatment room to deliver basic and some complex radiation treatments on a linear accelerator, as prescribed by the radiation oncologist.

(b) Ability to perform machine warm up procedures and interpret output levels compared with established thresholds and radiation safety principles.

(c) Ability to perform moderately complex patient chart reviews by using the electronic medical record and the Record and Verify System or other similar treatment delivery systems.

(d) Ability to operate the CT Simulator to perform simulations, design custom immobilization for reproducible set-ups, obtain optimal imaging and provide accurate and precise patient documentation.

d. **Therapeutic Radiologic Technologist, GS-9**

(1) **Experience.** At least one year of experience equivalent to the next lower grade level directly related to the position being filled.

(2) **Assignment.** Employees at this level serve as staff TRTs at the full performance level independently carrying out most procedures which have varying assignments, including advanced treatment modalities and procedures. TRTs at this level may be independently assigned to most areas of radiation therapy and to some advanced therapies. Assignments at this level include but not limited to: providing emergency treatment delivery, simple Monitor Unit dose calculation as assigned; scheduling simulation and treatment procedures; handling and storing radioactive materials; educating patient, family and staff on the administration of ionizing radiation; inspecting equipment for safety, operability and troubleshooting basic problems and machine issues. Regardless of the nature of the specific assignment, the work must be of sufficient scope and complexity to meet the knowledge, skills and abilities to perform at this level.

(3) **Demonstrated Knowledge, Skills and Abilities.** Candidates must demonstrate all the KSAs below:
(a) Skill in independently setting up the patient in preparation for basic and complex radiation treatments on a linear accelerator, as prescribed by the radiation oncologist.

(b) Skill in independently performing machine warm-up procedures to interpret output levels compared with established thresholds adhering to the principles of radiation safety and all aspects of quality assurance.

(c) Skill to independently perform patient chart reviews and effectively document records utilizing an electronic medical records system and the Record and Verify System or other similar treatment delivery systems.

e. **Therapeutic Radiologic Technologist, GS-10**

   (1) **Experience.** At least one year of experience equivalent to the next lower grade level directly related to the position being filled.

   (2) **Assignments.** For all assignments above the full performance level, the higher-level duties must consist of significant scope, complexity, range of variety and be performed by the incumbent at least 25% of the time. Employees at this level serve as advanced staff TRTs independently carrying out procedures which have varying assignments. This includes basic and advanced treatment modalities and procedures, which exceed the full performance level. Employee will be assigned the responsibility of emergency on-call treatments, if applicable, and perform simple Monitor Unit calculations. Other assignments include but are not limited to performing CT simulations, troubleshooting for basic problems and machine issues, maintaining treatment rooms and equipment in a clean, neat and safe condition and assisting patients to and from the treatment room. Regardless of the nature of the specific assignment, the work must be of sufficient scope and complexity to meet the knowledge, skills and abilities to perform at this level.

   (3) **Demonstrated Knowledge, Skills and Abilities.** Candidates must demonstrate all the KSAs below:

   (a) Skill in independently performing machine warm up procedures and interpreting output levels compared with established thresholds adhering to the principles of radiation safety and all aspects of quality assurance.

   (b) Ability to independently perform patient chart reviews using an electronic medical record and the Record and Verify System or other similar treatment delivery systems.

   (c) Ability to independently perform all basic and complex CT simulations, including independently operating the CT equipment, following directives, designing custom immobilization for reproducible set-ups, obtaining optimal
imaging, completing accurate data transfer for treatment planning and providing accurate and precise patient documentation.

(d) Ability to utilize a Linac's On Board Imaging system to interpret complex images.

f. **Lead Therapeutic Radiologic Technologist, GS-11**

(1) **Experience.** At least one year of experience equivalent to the next lower grade level directly related to the position being filled.

(2) **Assignments.** The lead TRT functions as a team leader for a group of TRTs who provide the full range of general and complex therapeutic radiologic oncology treatment procedures. The lead TRT provides technical oversight, distributes work assignments and provides input on performance and competencies. Assignments at this level include, but are not limited to: approving leave requests for a few hours or in emergency situations; instructing and training TRT staff on newly acquired equipment; providing orientation to staff, students, residents and others as requested; and assisting with staff scheduling, quality assurance, compliance, authoring, reviewing and updating procedures and policies. In addition, the lead TRT serves as the technical mentor, trainer and coach for the staff. The lead TRT is accountable to the next higher-level supervisor.

(3) **Demonstrated Knowledge, Skills and Abilities.** Candidates must demonstrate all the KSAs below:

(a) Ability to provide technical oversight, assure compliance with standard operating procedures, distribute work assignments to lower level radiation therapists and provide input for performance appraisals and competencies.

(b) Skill in effective communication of all aspects of patient care with the radiation oncology team to include facilitating all essential communication to the Chief Radiation Therapist or leadership regarding clinical and operational issues.

(c) Ability to independently deliver, mentor and provide oversight to lower level TRTs with basic and complex radiation treatments on a linear accelerator, as prescribed by the radiation oncologist.

(d) Ability to instruct and train TRTs on the Record and Verify System (or other similar treatment delivery systems), newly acquired equipment, devices and products within the service.

(e) Ability to resolve informal employee disputes and concerns using problem solving skills.

(f) Ability to develop local policies and standard operating procedures.
(g) Ability to perform lead responsibilities such as facilitating quality improvement activities, conducting in-service and staff meetings, conducting other departmental meetings as requested.

(h) Skill in facilitating chart rounds.

g. **Supervisory Therapeutic Radiologic Technologist, GS-11**

(1) **Experience.** At least one year of experience equivalent to the next lower grade level directly related to the position being filled.

(2) **Assignment.** Functions as a supervisor for a group of TRTs at the full performance level and below who provide general and complex therapeutic radiologic radiation oncology services. Assignments at this level include but are not limited to: plans and implements work schedules to assure an even flow and distribution of work, adjusts work assignments as needed for daily operation; recommends methods to improve productivity and continuously reviews treatment procedure and delivery. They oversee attendance and leave of employees, including approval of sick and annual leave requests. They address employee performance and conduct concerns. They inform higher-level management of anticipated staffing variances and recommend promotions, reassignments, or other personnel changes, such as retention or release of probationary employees, periodic step increases and recommending recognition of superior performance in the therapeutic radiologic area.

(3) **Demonstrated Knowledge, Skills and Abilities.** Candidates must demonstrate all the KSAs below:

(a) Ability to manage daily operations of the department to include supervising radiation therapy staff; coordinating staffing, workload and schedules; setting priorities; and delegating tasks and responsibilities.

(b) Ability to ensure department compliance with the national program office, radiation accrediting agencies, hospital and outside governing body standards through the management of quality improvement programs and adherence to departmental policies and standard operating procedures.

(c) Ability to supervise employees as evidenced by assessing qualifications and abilities of current and prospective employees; interviewing and selecting candidates; providing training and/or departmental orientation; overseeing technical operations; assessing employees for promotions; and reviewing competency and conducting performance appraisals.

(d) Ability to provide technical oversight to lower level TRTs for the completion of tasks such as CT simulation, treatment delivery, Record and Verify System (or
other similar treatment delivery systems), newly acquired equipment, devices and products within the service.

(e) Ability to successfully communicate with the radiation oncology team and internal and external customers to manage the needs of patients and accomplish the mission.

h. **Supervisory Therapeutic Radiologic Technologist, GS-12**

(1) **Experience.** At least one year of experience equivalent to the next lower grade level directly related to the position being filled.

(2) **Assignments.** Supervisory TRTs function as supervisors with full administrative and professional responsibility for planning and directing the work of TRTs at the advanced level and below who perform basic and complex therapeutic radiologic services. Supervisory TRTs provide oversight to support staff. They adjust, coordinate and balance staffing levels daily as needed to ensure patient care needs are met. They address employee performance and conduct concerns. Supervisory TRTs develop and update departmental operational policies and procedures and ensures adherence to hospital standard operating procedures and policies. They work closely with the physicists to maintain timely records of equipment use, issues, schedules preventive maintenance inspections and other activities. They oversee the technical competency of the TRT staff and keep current with technical protocols, radiation safety and quality management activities. They ensure all staff and affiliate staff follows compliance with accrediting and regulating bodies. They evaluate work and procedures of subordinate staff. They provide input on required staffing levels that impact resource allocation decisions made at the executive level. Supervisory TRTs provide estimates for budgeting to assist with the fiscal management of the radiation oncology service.

(3) **Demonstrated Knowledge, Skills and Abilities.** Candidates must demonstrate all the KSAs below:

(a) Ability in managing daily operations of the department to include supervising radiation therapy staff; coordinating staffing, workload and schedules; setting priorities; and delegating tasks and responsibilities.

(b) Ability to coordinate and develop the quality improvement program to include evaluating and implementing departmental policies and standard operating procedures to ensure compliance with the national program office, radiation accrediting agencies, hospital and other outside governing body standards.

(c) Ability to perform administrative duties to include, but not limited to: reviewing qualifications and abilities of current and prospective employees; interviewing and selecting candidates; providing training and departmental orientation;
overseeing technical operations; granting promotions; and reviewing competencies and conducting performance appraisals.

(d) Ability to provide oversight to lower level TRTs with tasks such as CT simulation, treatment delivery, Record and Verify System (or other similar treatment delivery systems), newly acquired equipment, devices and other products within the service.

(e) Ability to successfully communicate with the radiation oncology team, internal customers and external customers to manage the needs of patients and to accomplish the mission.

(f) Ability to adhere to radiation safety practices which include identifying and investigating treatment variations; reporting incidents; participating in quality assurance; addressing required reports, tasks and action items; and completing other requests using research and systematic data collection.

(g) Knowledge of budget allocations and using resources within the budget, procuring of day-to-day supplies, investigating new equipment options and planning for long-term replacement needs.

5. DEVIATIONS.

a. The appointing official may, under unusual circumstances, approve reasonable deviations to the grade determination requirements for TRTs whose composite record of accomplishments, performance and qualifications, as well as current assignment warrants such action.

b. The placement of individuals in grade levels or assignments not described in the qualification standard must be approved by the Under Secretary for Health in VA Central Office, pursuant to delegated authority from the Secretary.

c. Under no circumstances will the educational or credential requirement be waived for those occupations with a positive education requirement, or when specific credentials are identified as necessary to meet minimum requirements.

Authority: 38 U.S.C. §§ 7401, 7402, 7403, 7405 38 U.S.C. §§ 7401, Appointments in Veterans Health Administration; 7402, Qualifications of appointees; 7403, Period of appointments; promotions; 7405, Temporary full-time appointments, part-time appointments and without-compensation appointments; 7407, Administrative provisions for section 7405 and 7406 appointments]