

PERFORMANCE WORK STATEMENT

Radiation Oncology Physicist

Contractor is to provide **2.20 FTEE** Radiation Oncology Physicist Services at the Clement J. Zablocki VAMC, 5000 W National Avenue, Milwaukee, WI 53295, hereafter referred to as the Milwaukee VAMC or the Zablocki VAMC. The contractor's Radiation Oncology Physicist shall be Master's Degree (Master of Science in Physics or similar degree) prepared (PhD preferred) Board Certified/ Board Eligible (by the American Board of Medical Physicists or the American Radiology Board) Radiation Oncology Physicist(s), with a minimum of 2 years' experience. Contractor's Radiation Physicists will be required to perform all examinations for the area to which they are assigned and the standard of care shall be equal to that provided by the VA.

1. General Contract Requirements:

- a) The contractor's employees must be present at the Zablocki VAMC performing the required services for the period specified in the contract. The contractor shall invoice the VA only for actual hours worked at the Zablocki VAMC. The contractor's employees will not be working elsewhere during the normal tour of duty, **7:30am - 5:30pm** (or later if treatment warrants it). Needs of veterans shall come first.
- b) The Contractor's Physicists will provide services Monday-Friday 7:30am-5:30pm at the Clement J. Zablocki VAMC. The Radiation Oncology Clinic at the Milwaukee VAMC will schedule the last patient at 5:00pm. The Radiation Oncology Clinic hours may need to be adjusted, at times, in order to accommodate construction and/or meet clinical demands. Any clinic cancellations or contract staffing deviations must be approved by the VA in accordance with VA policy. The VA Radiation Oncology program provides patient care 5 days a week. The contractor will also be required to provide a working Lead Radiation Oncology Physicist (as a part of the 2.2 FTEE) to oversee all physics and dosimetry aspects.
- c) Services shall be provided in accordance with all applicable federal and state laws, rules and regulations and applicable rules and regulations of the VA. Standards and guidelines of the American College of Radiology (ACR) will be followed.
- d) Contractor's physicists will also have thorough knowledge and experience complying with the most current version of the American College of Radiology (ACR) Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy.
- e) Contractor's physicists will be familiar and have hands-on experience in documentation and completion with the most current version of the following Task Group Reports from the American Association of Physicists in Medicine: 24, 25, 26, 27, 28, 34, 36, 39, 40, 45, 51, 53, 58, 62, 63, 66, 70, 73, 74, 76, 86, 101, 103, 104, 106, 114, 119, 142, 166, 179, and 204. These can be found at: <http://www.aapm.org/pubs/reports/>
- f) The VA Chief of Staff will provide administrative direction and/or professional guidance to the contractor and the contractor's employees.

2. Radiation Physicist Clinical Services – 1.2 Full Time Equivalent Employee (FTEE)

Contractor will provide an **estimated 2493 hours** or **1.2 FTEE** Board Eligible/Board Certified Radiation Physicist services to perform all duties as required, which include, but are not limited to: support for

technical questions regarding patient's treatment, equipment planning, support, calibration (equipment and treatment units) and maintenance, quality control and quality assurance related activities, physics chart reviews and consultations. The contractor will also provide planning and support for Intensity Modulated Radiation Therapy (IMRT) delivery.

- a) **Support:** The contractor will support the radiation oncologists, dosimetrists, nurses and radiation therapists with regard to any technical questions relative to the treatment of any specific patient. The physicist will oversee data transfer and fusing of imaging data, tumor and normal structure volume definition, prescription goal and isodose distribution, plan development, review of dose volume histograms, dose calculation and accelerator data transfer, individual patient specific QA and associated documentation and weekly monitoring of all treatment delivery. As ordered and prescribed by the radiation oncologist, patients will be provided with special physicist consultations and special dosimetry with appropriate written reports, using diodes, ion chamber measurements or film densitometry. The physicists shall be available, when necessary, for consultation with the Radiation Oncologist and to provide advice or direction to technical staff when radiation treatments are being planned or when patients are being treated. When possible, the physicist should be present to observe and/or help supervise complicated simulations and/or treatment set-ups. Physicist must be present at the machine during patient setup.
- b) **Equipment:** The contractor will provide specifications for the ongoing development of the VA's treatment facility, including physics planning. These specifications will include equipment requirements and planning services. Any new equipment will be commissioned and tested in accordance with national standards by the physicist before the equipment is used for patient services. The contractor physicist shall participate in the specification, selection, and acceptance of radiation-producing machines, accessories, and computerized treatment planning systems. The physics staff should also supervise arrangements for proper maintenance of this equipment. Furthermore, the physicist shall determine the need for, specify, and have access to dosimetry and treatment planning equipment, including planning and support for Modulated Radiation Therapy (IMRT) treatment delivery. **The contractor must have experience working with and knowledge of the Siemens Artiste Linear Accelerator & Siemens Oncore Linear Accelerator.**
- c) **Calibration:** The contractor will calibrate each treatment unit annually in a manner consistent with state and national requirements. A written report of the calibration will be delivered to the Clement J. Zablocki VAMC for placement in its files. The calibration will be performed by a Board Certified Medical physicist. Following calibration, the report generated will be evaluated and countersigned by a Board Certified Medical Physicist. The Physicist will coordinate, complete thermoluminescent dosimeter (TLD) measurements and submit results annually for third party calibration analysis. This analysis is meant to confirm that our monthly and annual calibrations are accurate and delivering radiation beam as prescribed.
- d) **Quality Management Program:** The contractor shall provide and establish a quality management program that monitors and evaluates critical radiation oncology equipment performance parameters to include: treatment units, simulator, treatment planning computer, record and verify computer and other ancillary equipment. The physicist is responsible for designing and implementing a quality management program that involves the use of the external beam radiotherapy equipment, and shall establish procedures to verify that all equipment meets the manufacturer's specification and establish baseline performance values. The quality control program should follow the guidelines set-forth in the ACR Technical Standard for the Performance of Radiation Oncology Physics for External Beam Therapy. The quality control program will be the responsibility of the physicist. The physicist will

train the appropriate clinical staff to participate in the program. The Lead Physicist shall provide the Administrative Officer, for the Medicine Service a monthly report of these activities.

- e) **Chart Reviews:** The contractor shall provide patient care support by reviewing treatment plans or dosimetric calculations, and document findings on patient's chart. The Radiation Oncology Physicist will document findings and recommendations in the form of an independent consult or progress note in the VA's Computerized Patient Record System (CPRS) within required timeframes as outlined in the Clement J Zablocki VA Medical Center Professional Services Memorandum No. III-1 and on VHA Handbook 1907.01. The physicist duties include the following:

1. Verify plans that are used for treatment delivery
2. Verify each monitor unit dose calculation, isodose plan, special port plan, dose volume histogram and the treatment technique.
3. Provide special dosimetry services, collecting and reporting patient specific measurement data to the radiation oncologist.

In addition, weekly physics chart review and special physics consultation services will be provided.

3. Radiation Oncology Physicists, Medical Physicist Lead, 1.00 FTEE

The Contractor shall provide an **estimated 2080 hours or 1.00 FTEE** experienced Radiation Oncology Medical Physicist to serve as the working Lead Physicist and oversee all physics and dosimetry aspects. The Lead Physicist is required to be on-site at the Clement J. Zablocki VAMC at least 2 days/week to ensure the quality of the Radiation Oncology Physics program. In addition to all clinical duties listed in Section 2 of the Performance Work Statement, the Lead Physicist shall:

- a. Provide quarterly Quality Assurance reports for the Quality Assurance Committee.
- b. Provide quarterly Quality Assurance reports for the Radiation Safety Committee and attend Quarterly Radiation Safety Meetings.
- c. Track and verify all quality assurance aspects, including TLD measurements for third party analysis.
- d. Provide shielding surveys, and reports as required by the Nuclear Regulatory Committee (NRC).
- e. Ensure that the Clement J. Zablocki VA Medical Center's NRC licenses are current for radioactive sources on-site.
- f. Ensure that the Radiation Oncology Service has appropriate licenses for users of all our software applications.
- g. Develop, implement, supervise, and periodically review all Quality Management Policies (QMP) policies and procedures that pertain to radiation therapy equipment.
- h. Be responsible for the design, implementation and periodic review of all aspects of the QMP that involve the use of radiotherapy equipment.
- i. Ensure continuity of medical physics operations including communication among key personnel.