# Equipment Specifications
## Radiation Treatment Planning System
## VISN 23/Minneapolis VA Healthcare System
## 618-B99013

## A. REQUIREMENT OVERVIEW

Radiation treatment planning systems allow physicians, physicists, dosimetrists, and therapists to plan and optimize the delivery of radiation therapy plans used in the treatment of cancer and related diseases. These systems use image data and dosimetric data to help clinicians determine the optimum treatment parameters to match the prescribed dose and constraints. Various computer algorithms are used to model the interactions between the radiation beam and the patient's anatomy to determine the spatial distribution of the radiation dose. Different algorithms are necessary to account for the different types of radiation and computational complexity. Planning systems are available for all types of radiation treatment delivery. The Minneapolis VA Healthcare System requires a radiation treatment planning system, with the required hardware and software components, for treatment of veterans.

| Facility | Quantity |
|---|---|
| Minneapolis VA Healthcare System | 1 |

## B. TECHNICAL REQUIREMENTS

1. Treatment Planning

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| ☒ | a. Photon External Beam Planning |
| ☒ | b. Electron External Beam Planning |
| ☒ | c. Frame Stereotactic External Beam Planning |
| ☒ | d. Frameless Stereotactic External Beam Planning |
| ☒ | e. 3-D Conformal |
| ☒ | f. 4-D Conformal |
| ☒ | g. Step and Shoot intensity modulated radiation therapy (IMRT) |
| ☒ | h. Dynamic intensity modulated radiation therapy (IMRT) |
| ☒ | i. Multileaf Collimator (MLC) External Beam Planning |
| ☒ | j. Solid Block External Beam Planning |
| ☒ | k. Virtual Wedge |
| ☒ | l. Image-Guided Radiation Therapy (IGRT) |
| ☒ | m. Adaptive Therapy |
| ☒ | n. Volumetric Arc Therapy |

2. Compatible Treatment Delivery

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| ☒ | a. Linear Accelerator – Varian TrueBeam |
| ☒ | b. Multileaf Collimator (MLC) – 120 leaf MLC |

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| ☒ | c. Stereotactic Frames – SRS Encompass Immobilizaton Package from Qfix |

3. Image Data

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| ☒ | a. DICOM 3.0 |
| ☒ | b. DICOM RT |
| ☒ | c. Conventional Simulator |
| ☒ | d. CT Image Data |
| ☒ | e. MR Image Data |
| ☒ | f. PET Image Data |
| ☒ | g. Meets requirements for IHE RT Profile |
| ☒ | h. Manual Registration Image Fusion |
| ☒ | i. Fiducial-Based Image Fusion |
| ☒ | j. Anatomy-Based Image Fusion |
| ☒ | k. Deformable Fusion |

4. Planning Methodology and Tools

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| ☒ | a. Module-based Software |
| ☒ | b. Inverse Planning |
| ☒ | c. Multiple Dosimetric Algorithms |
| ☒ | d. Plan Resolution – 1 $mm^3$ |
| ☒ | e. Max Number of Beamlets - 100 |
| ☒ | f. Max Number of Beam Angles - Unlimited |
| ☒ | g. Template Library |
| ☒ | h. Automatic Organ Contouring |
| ☒ | i. Semiautomatic Organ Contouring |
| ☒ | j. Input Prescription Limitations |
| ☒ | k. Real-time Plan Adjustment and Optimization |
| ☒ | l. Composite Modality Planning |

*5. Workstation Requirements*

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| ☒ | a. Minimum number of dosimetry workstations | 4 |
| ☒ | b. Minimum dosimetry workstation monitor size [in] | 30 |
| ☒ | c. Minimum dosimetry workstation hard drive size [GB] | 250 |
| ☒ | d. Minimum dosimetry workstation RAM size [GB] | 8 |
| ☒ | e. Minimum number of physician workstations | 2 |
| ☒ | f. Minimum physician workstation monitor size [in] | 30 |
| ☒ | g. Minimum physician workstation hard drive size [GB] | 250 |
| ☒ | h. Minimum physician workstation RAM size [GB] | 8 |

| | | |
|---|---|---|
| ☒ | i. Minimum number of physicist workstations | 2 |
| ☒ | j. Minimum physicist workstation monitor size [in] | 30 |
| ☒ | k. Minimum physicist workstation hard drive size [GB] | 250 |
| ☒ | l. Minimum physicist workstation RAM size [GB] | 8 |
| ☒ | m. Minimum number of resident workstations | 1 |
| ☒ | n. Minimum resident workstation monitor size [in] | 30 |
| ☒ | o. Minimum resident workstation hard drive size [GB] | 250 |
| ☒ | p. Minimum resident workstation RAM size [GB] | 8 |
| ☒ | q. LCD monitor(s) | |
| ☒ | r. Solid state hard drive solution on all workstations | |
| ☒ | s. Dual video output on all workstations | |

*6. Security/Connectivity Requirements*

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| ☒ | m. OEM-supported operating system |
| ☒ | n. Latest DICOM print, store, commit, and modality worklist |
| ☒ | o. Encrypted hard drive |
| ☒ | p. Oncology Information System compatibility – Varian Aria |
| ☒ | q. Remote diagnostic service availability |

*7. Added Value*

Specifications listed below are not required, but preferred. Vendors who do not include the below specifications in the submitted offer will not be docked or excluded from consideration. Specifications listed below will be evaluated based on added value.

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| ☒ | a. Additional year(s) of warranty |
| ☒ | b. Post-warranty remote diagnostic service program |
| ☒ | c. Version/platform long-range plan |
| ☒ | d. OEM-supported operating system through 2022 |
| ☒ | e. Compatibility with Cerner EMR |
| ☒ | f. Ability to complete Secondary Calculation check |
| ☒ | g. Printer for workstations |

# C. TRAINING REQUIREMENTS

1. Clinical Training

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| ☒ | a. On-site clinical applications training for 2 dosimetrists and 2 physicists during go-live |
| ☒ | b. On-site clinical applications training for 2 physicians during go-live |
| ☒ | c. On-site clinical applications training for 6 total physicians, dosimetrists, and physicists post go-live, not to exceed 1 year. |

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| ☒ | d. Off-site advanced planning training for 2 dosimetrists |
| ☒ | e. Off-site physics modeling training for 2 physicists |
| ☒ | f. Technologists who complete the clinical applications training shall receive continuing education credits (CMEs). |
| ☒ | g. Vendors shall be responsible for accommodating different personnel shifts for clinical applications training during go-live. |

2. Biomedical Technician Training

**Please reference the "Instructions to Offers" section 2.8.g for further information about the type of information to provide by equipment type not by specific request. Please also reference the "Instructions to Offers" section 7.3.3. for response format.**

Technical training information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.

Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be purchased at the time of need via a modification (if the original order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.

# D. SERVICE REQUIREMENTS

1. VPN/Remote Access – The vendor shall provide any and all equipment service programs, such as remote diagnostics, during the warranty period. The vendor shall provide post-warranty remote diagnostic service program as an "Add Option" with the offer. The system shall provide vendor remote diagnostics via VPN. The vendor shall either utilize the VA national site-to-site VPN or work with the Office of Cyber and Information Security and the VAMC Information Systems Security Officer to establish a client-based VPN.
2. Service and Operator Manuals – The vendor shall provide the following documentation for the proposed systems:
    a. Two (2) copies of operator instruction manuals (one (1) electronic and one (1) physical copy)
    b. Two (2) copies of a service manuals (one (1) electronic and one (1) physical copy)
    *Vendors can include the physical copy as a priced line item in their quote as applicable.
3. Minimum Warranty – The system and accessories shall be covered under the manufacturer's warranty and shall include all parts and labor for one year following acceptance by the VAMC. This warranty must include PMs as required by the manufacturer. The manufacturer's factory-trained field service representatives shall perform installation and maintenance during the warranty period.

Vendors are encouraged to include any offerings for service, warranty, and training that may exceed the minimum requirements, to include information on their service support structure during and after the warranty period. Vendors who do not include any added value offerings for service, warranty, and training will not be docked or excluded from consideration. However, any such offerings will be evaluated based on added value.

# E. OTHER INFORMATION/DOCUMENTATION REQUESTED

1. Please reference the “Instructions to Offers” section 2.8a-h for further information about the type of information to provide by equipment type not by specific request. Please also reference the “Instructions to Offers” section 7.3.3. for response format.

1. Completed pre-procurement assessment form (6550 Appendix A)
2. Completed Manufacture Disclosure Statement for Medical Device Security (MDS2) form
3. Federal Information Processing Standard (FIPS) 140-2 certification
4. Product brochures
5. Technical specification sheets, to include dimensions and weight of the system
6. Typical drawings (pdf version of the CAD drawings)
7. Technical training- Biomedical: information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.
    - Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be purchased at the time of need via a modification (if the original order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.
8. Support information to include your company’s support structure during and after the warranty period
    - On-line or telephonic applications support and availability (include third party coverage)
    - A listing of field service engineer locations and availability
    - A listing of part depots

# F. TRADE-IN

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| ☒ | a. VA has no trade-in units to offer. |