Appendix I

SCHEDULE

TERMS OF REFERENCE

Medical Physicist Services

The Contractor shall report to the Manager-Para-Clinical Services and to the Clinical Head of Department – Radiology or any other party designated by those Officers in connection with the performance of the duties under this Agreement and shall fulfil any other duties reasonably requested by the Employer and agreed to by the Contractor.

During the period of this Agreement, the Contractor shall ensure that the services performed pursuant to the requirements hereof shall conform to all applicable laws and regulations promulgated by the legally constituted Authorities of the government of Trinidad and Tobago.

Minimum Training and Experience

- Training as evidenced by the possession of a Bachelor's Degree in Medical Physics or any other equivalent qualification
- Board Certification in Diagnostic Medical Physics will be considered an asset
- Experience in diagnostic imaging and medical health physics will be considered an asset
- Post graduate qualification in Medical Physics or related field will be considered an asset.
- Two (2) years' experiences in a clinical setting, under the supervision of a qualified medical physicist
- Any equivalent combination of training and experience.

Tasks

The Medical Physicist works independently, using scientific methods to provide both physics and technical support, and is responsible for ensuring the safe and effective application of radiation used in the diagnostic imaging setting through optimization of diagnostic imaging quality and fulfilment of the role of Radiation Safety Officer (RSO). The officer although predominantly stationed at the SGH, provides support to ALL locations equipped with radiation-producing equipment across the ERHA.

The contractor shall work as part of the Radiology Team and provide technical expertise during the discharge of the following:

- Coordinates planning and implementation, in collaboration with other relevant stakeholders, and has the primary responsibility for managing, monitoring, evaluating and updating of the ERHA's Radiation Safety and Protection Program (RPP)
- Executes the policies and procedures established by the Radiation Safety Committee
- Acts as Secretary of the Radiation Safety Committee
- Ensures safety against potential radiation hazards to all employees, patients, and visitors, and ensures compliance with industry standards

- Provides consultation to personnel at every level of responsibility at the ERHA in accordance with the ERHA's Radiation Safety and Protection Programme.
- Ensures the ERHA's compliance with international and local regulations, license regulations and conditions.
- Prepares and submits license renewals and amendments to local authority.
- Conducts training for occupationally exposed workers to comply with applicable regulations.
- Monitors and surveys restricted areas, which include monitoring exposure rates, as necessary, in areas in which radiation-producing machines are operated.
- Manages the ERHA's Radiation dosimetry programme, which includes the following:
- Determines if dosimetry is required for occupationally exposed workers.
- Distributes, collects, and sends dosimeters for processing.
- Reviews exposure records and distributes those records to workers who are issued dosimeters.
- Maintains exposure records and provides those records, as requested, by participants and their current or prospective employers.
- Estimates exposures for employees who lose or damage dosimeters.
- Develops and maintains the quality management program for all imaging equipment to maximize image quality while minimizing radiation dose to patients, inclusive of policy and procedure development, establishment and supervision of QA/QC procedures, risk assessment and management.
- Ensures calibration and verification of measurement instruments
- Maintains radiation survey, maintenance and calibration records.
- Ensures safe operation of radiation-producing equipment
- Conducts periodic acceptance testing on diagnostic imaging equipment
- Is actively involved in project planning and implementation for new radiation-producing equipment through contributions toward specification development, functional/room shielding and radiation safety planning, radiation surveying and equipment commissioning activities
- Evaluates exam protocols and diagnostic imaging equipment to ensure performance to the specification established by the relevant compliance standard, manufacturer statement and internal standards.
- Assists with all aspects of research and development in medical imaging and works to optimize diagnostic images while maintaining patient radiation, SAR, or acoustic sound exposure levels that are as low as reasonably achievable.
- Provides technical supervision of diagnostic imaging equipment operation and maintenance
- Acts as a resource and provides technical support to medical, nursing and diagnostic imaging staff.
- Trains and updates healthcare, scientific and technical staff.
- Conducts (re)orientation training for all "occupationally exposed" employees
- Investigates incidents and other abnormal occurrences involving radiation or radioactive material, and develops corrective action plans in collaboration with stakeholders, where needed.
- Prepares and submits radiation survey / progress / performance etc., reports

- Conducts research and development related to the medical imaging / medical physics field
- Performs related work as required by the Authority.

KEY KNOWLEDGE, SKILLS AND ABILITIES

- Extensive knowledge of Radiation Safety and Protection Legislation and International Standards
- Extensive knowledge of the principles and practices of diagnostic imaging.
- Strong skills in the physics of medical imaging
- Sound knowledge of equipment and techniques involved in the investigation, determination on and analysis of radiation levels.
- Working knowledge of imaging safety, diagnostic test equipment and procedures, as well as routine imaging protocol assessment.
- Good understanding of the clinical manifestations of diagnostic imaging equipment problems
- Strong analytical, critical thinking, investigative, problem-solving and decision-making skills.
- Sound understanding of total quality management
- Strong leadership and organizational skills
- Good understanding of project management
- Ability to work independently and prioritize work.
- Ability to prepare comprehensive reports.
- Superior communication skills, both oral and written, including interpersonal skills for interaction with all levels of staff
- Ability to establish and maintain effective relationships with fellow employees, patients and with the public.
- Ability to travel to / visit all sites with radiation-producing equipment across the ERHA as needed.

Deliverables

The Contractor shall further provide:

1. Maintain a forty (40) hour work week
2. Travel to / visit all sites with radiation-producing equipment across the ERHA as needed.
3. Submit monthly activity reports
4. Submit monthly progress reports specific to the implementation of the Authority's Radiation Protection Programme
5. Submit Radiation Safety Committee (RSC) minutes, progress reports and other relevant documentation in keeping with the role of the Radiation Safety Officer (RSO) and Secretary to the RSC.
6. Submit detailed invoices for works undertaken on a monthly basis