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RADIATION PROTECTION AUTHORITY OF ZIMBABWE

RADIATION PROTECTION ACT [CHAPTER 15:15]

REQUIREMENTS FOR MEDICAL RADIOLOGY- COMPUTED TOMOGRAPHY (CT) FACILITIES

Introduction

Computed Tomography is a regulated practice under the Radiation Protection Act[Chapter 15:15] and is subject to requirements set out in Statutory Instrument 91 of 2014, Radiation Protection (Medical Licensing) regulations.

Due to the high risk associated with the practice, Computed Tomography is subject to multistage licensing as provided for under sections 6 and 7 of SI 91 of 2014. As such, licensees are required to ensure that authorization is obtained for all the requisite stages i.e.:-

- 1. Design and construction of facility;
- 2. operation (acceptance, commissioning, clinical use, maintenance);
- 3. Modification; and
- 4. Decommissioning.

Each of these stages requires a valid authorization. An application should be submitted to the Authority which will duly assess and review it before coming up with a regulatory decision.

Additional authorizations are required, where applicable for the following:-

- i. Import (where the CT machine is purchased from outside Zimbabwe);
- ii. Transfer (where there is a change of ownership of the CT machine(s) between parties in Zimbabwe);
- iii. Export (Where the CT machine is to be taken outside Zimbabwe)

General Requirements

- 1. Completion and submission of application form indicating the appropriate stage of authorization sought.
- 2. Payment of approved fees in line with SI 134 of 2012 read together with SI 91 of 2014.

The application for authorization should be duly signed by the appointed representative of the legal person (applicant organization/ individual).

Facility Design

A Computed Tomography facility should meet the following design specifications:-

- a. The examination room dimensions should be at least 625cm x 400cm. The walls should be 9inches (23cm) thick (double brick);
- b. Operators' area should be at least 200cm x 400cm;
- c. Examination room should be accessed by a double lead door lined with 2.0mm lead ;
- d. The service door linking the operators' and examination room should be lined with 2.0m m lead ;
- e. Operators viewing glass should be 100cm x 80cm of 2.0 mm lead equivalence;
- f. Windows shall be at least 2m above the ground outside
- g. Doors should be fitted with mechanical interlocks;
- h. A red warning light synchronized to the machine should be fitted at the entrance to the examination room, above the door;
- i. A radiation warning sign (trefoil) shall be posted on all entrances;
- j. Warning notices shall be written and posted on all entrances in English and vernacular.

Personnel and Training

Every CT facility should have the following personnel:-

- i. A Radiologist registered with the Health Professions Authority;
- ii. Radiographers/ X-Ray Operators registered with the Health Professions Authority;
- iii. An appointed Radiation Safety Officer in line with the Radiation Protection Act;
- iv. Arrangements with a Registered Medical Physicist for quality assurance;

v. Arrangement with Accredited Engineers/ Technicians for maintenance, servicing and repair of equipment

Radiation Protection Programme

The Radiation Protection Programme for an application for authorization shall be developed by the RSO in line with the guidelines provided by the Authority:

Inspection

The facility shall be subject to a regulatory inspection upon receipt of completed application forms, applicable fees and documents reflecting the requirements listed above. The authorisation shall be issued upon a satisfactory report of the inspection.