

An X-Ray Centre

An X-ray centre shall be defined as a facility with the following minimum requirements as listed in sections A to G below:

A. Personnel

B. Services

C. Premises - Physical Design, Layout, Furnishing and Ancillary Facilities

D. Equipment Devices and Supplies

E. Safety and Security

F. Schedules

G. Records

A. Personnel

The minimum qualification for the practitioner in charge shall be

- A registered radiographer (5 years post qualification experience and registered with Allied Health Professions Council).

B. Services

- X-ray Imaging
- Any other requirement that may be prescribed by the Board.

C. Premises- Physical Design, Layout, Furnishing and Ancillary Facilities

- Information desk
- A waiting and reception area; separate from the radiation area
- Standard x-ray room with wall thickness of 6 inches and lead-coated doors;
- Provision for changing room
- A protective cubicle;
- One sizeable processing room equipped with a set of manual processors, including a drier;

- Backup of Generator, UPS, emergency light
- Washable floors with floor drains
- Clean patients' toilet and bath facilities with adequate water supply;
- Adequate general water supply
- Constant electricity supply with alternative power supply in good working condition
- Approved certification for facilities with X-Ray imaging from the Nuclear Regulatory Authority.
- Any other requirement that may be prescribed by the Board.

D. Equipment, Devices and Supplies

- At least one static x-ray machine with a minimum of 100 mas and 125 kvp output rating;
- One x-ray couch with Bucky;
- One chest stand;
- Hangers – all sizes;
- Cassettes – all sizes;
- X-ray viewing box.
- Wheel chair (s)
- Patient trolley (s)
- Procedures for processing (transport, disposal) of used medical devices, supplies and equipment
- Any other requirement that may be prescribed by the Board.

E. Safety and Security (Sections 1 to 12)

1. Structural

- a. Unobstructed access to facility
- b. Easily accessible to the disabled and aged
- c. Parking area
- d. Roof walls and ceiling intact
- e. Windows and Doors for facility intact with mosquito netting
- f. Facilities for storage of outer garments and personal items away from work area
- g. Adequate working space
- h. Clear separation of different general areas (reception, registration, diagnostics, laboratory)
- i. Separate work and storage areas are provided within the facility for processes/procedures, administration tasks and associated paperwork/reference material.

2. General

- a. Non-slip floors
- b. Unobstructed walkways, paths and corridors
- c. Adequate illumination
- d. Adequate ventilation

3. Signage

- a. Department/ Unit signs
- b. Directional signs
- c. Warning signs
- d. Emergency evacuation diagram clearly displayed in all areas
- e. Entry and exit signs
- f. Hazard/safety signage on entrance/s clearly visible and contains information including:
 - i. Authorized access only
 - ii. No food or drink allowed

- iii. Type of chemicals
- iv. Supervisor contact details

4. Hygiene and Sanitation

- a. Fairly distributed number of pedal operated dust bins
- b. Means of decontamination of hands
- c. Posters on appropriate handwashing technique
- d. Posters on appropriate use of toilet facilities
- e. Signs for disposal of different types of waste
- f. Cleaning time tables for all rooms, offices and bathrooms

5. Protective Clothing and Gear

- a. Lead-lined aprons
- b. Masks
- c. Gloves
- d. Covered shoes
- e. Goggles /Protective eye gear
- f. Protective hair nets
- g. Protective laboratory coats
- h. Protective feet covers
- i. Provision for washed and clean linen

6. Biohazards

- a. Procedures for handling, storage, treatment, transportation and disposal of waste (colour codes for different waste etc)
- b. Sharps disposal
- c. Consumables disposal
- d. Biological waste disposal
- e. Incineration procedures for biological waste
- f. Protocols and procedures for managing accidents with sharps
- g. Protocols and procedures for managing cross contamination

7. Emergency

- a. Exit doors clearly marked and can be opened from inside (not padlocked)
- b. Exit doors unobstructed from inside and outside the building

- c. Fire equipment (fire blanket, extinguisher, hose reel) is accessible and clear of obstruction
- d. Fire equipment (fire blanket, extinguisher, hose reel) have been inspected/tagged within the last 6 months.
- e. Fire exit and escape (for structures 2 storey and above) clearly marked and devoid of obstruction
- f. A first aid kit is located in the near vicinity.
- g. Smoke detectors are working and clear of obstruction.

8. Biosafety

- a. Procedures in place to account for all samples, reagents or materials
- b. Appropriate biosafety signage at the entrance to applicable units and on storage room doors/vessels
- c. A supply of disinfectant for decontamination purposes is available and is clearly labelled.
- d. Instructions for dilution of disinfectant is clearly displayed e.g chlorine solution
- e. Diluted bleach is stored away from heat and is kept in lightproof containers with the preparation date displayed.

9. Biosecurity

- a. There is appropriate signage at the entrance to all areas.
- b. All GMO and Quarantine samples labelled appropriately
- c. All samples, reagents, liquids are appropriately stored in appropriate storage vessels and clearly labelled
- d. All samples are secondary contained (fridges and freezers count as secondary containment within a lab)
- e. Security arrangements are in place and various applicable areas have clearly marked restricted access
- f. Procedures are in place for the transport of materials
- g. All surfaces (including furniture) within the laboratory are smooth, impermeable to water and resistant to any decontaminant materials.
- h. There are locks on fridges and freezers.

- i. There are appropriate pest control procedures in place (spraying, weeding etc.)
- j. All windows and walls are intact and sealed and there are no gaps.

10. Chemicals, Handling and Storage

- a. Chemicals stored in appropriate containers.
- b. Containers are labelled correctly (e.g. not handwritten, label contains minimum chemical name and pictogram depicting hazard level).
- c. Chemicals are stored according to compatibility.
- d. Compatibility chart is readily available.
- e. Dangerous goods are stored under COSHH guidelines (Control of Substances Hazardous to Health).
- f. COSHH cabinets must be used, labelled and maintained in accordance with COSHH practices and other international best practices including but not limited to
 - i. Self-closing and close fitting doors
 - ii. Locking automatically (flammable)
 - iii. Locking mechanism in 2 or more places (flammable/corrosive)
 - iv. Self-releasing locking mechanism (oxidizing agents and organic peroxides)
 - v. Clearance from ignition/heat sources (flammable, oxidizing agents, organic peroxides)
 - vi. Ventilation
 - vii. COSHH approved labels for various hazards (toxic, danger to environment, corrosive etc.)

11. Flammable Liquids (if applicable)

- a. Must be stored in suitable closed vessels in limited quantities in fire resistant cabinets or bins designed to retain spills
- b. Cabinets to be located in designated well ventilated areas away from the immediate area for processing but not placed in a way to jeopardize the means of escape from other areas

- c. Must be stored away from other dangerous substances that can increase the risk of fire or compromise the integrity of the storage container or cabinet

12. Radiation

- a. Access to Designated Radiation Areas limited only to authorised persons.
- b. Suitable radiation/contamination monitoring equipment is available and in working condition.
- c. X-ray and other radiation producing equipment is kept in a room solely dedicated to it.
- d. Ionizing equipment is contained in appropriate enclosures.
- e. Enclosures have interlocks preventing users from being within the confines of the enclosure.
- f. Visible and audible signals are provided inside and outside enclosures to provide warning before and during irradiation.
- g. Fail-safe mechanisms are provided to prevent generation of X-rays.
- h. The laboratory is secured against unauthorised access.
- i. Radiation storage sites are lockable, secured and shielded as required.
- j. All work with radioactive material is segregated from other work.
- k. Spill trays and absorbent bench coverings are available.
- l. The counting apparatus is in a separate room.
- m. All containers are labelled appropriately.
- n. The monitoring equipment has been calibrated and up to date.
- o. The radioisotope laboratory is placarded with
 - i. The identification of the laboratory,
 - ii. Main potential hazards,
 - iii. Personal protective equipment is to be worn,
 - iv. After hours contact name and phone number.

F. Schedules

- Preventive maintenance schedules for the building housing the facility together with fixtures

- Preventive maintenance scheduled for equipment used in the facility
- Standard Operation Procedures
- Fire practices, drills, fire alarm tests and their results and action taken where applicable
- Any other applicable schedule or drill.

G. Records

- Facility equipment records;
- Facility inspection records;
- Waste tracking log book;
- Occupational log books to record results of all staff investigations;
- Log books for recording accidents and injuries at the facility;
- Log books for recording potential and actual infections
- Routine (monthly/quarterly) data on ailments/illnesses/conditions reported at the facility.
- Any other relevant records prescribed by the board