



DARKROOM

Red Tech Official for Radiographer



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WHAT IS DARKROOM PLACE?

- It is a place where handling and processing of film carried out safely and efficiently without accidental exposure to light or x-rays.
- Must exclude all outside light.
- Must provide safe artificial light.

Building essential of DARKROOM

- It must be close to radiographic room and if there is 2 radiographic room then it must be in central position.
- Thickness of Lead in wall and ceiling is 1.5 mm.
- Remotely located from radioactive material
- Wall covered with chemical resistant material (special paint or ceramic tiles (*for maximum light reflection*)).
- Floor should be durable , Cleaned , chemical resistant and stain proof.

Building essential of DARKROOM

- Passbox must be light proof.
- X-ray proof door near the film loading bench.
- Light storage bins for unexposed films
- Film hangers and drying cabinets.

Types of entrances :-

- 1) Single door.
- 2) double door.
- 3) Maze entrance (Labyrinth)
- 4) Revolving door

Building essential of DARKROOM

- Minimum Height of darkroom is 10msq. And height is 2.7m.
- **Ventilation :-** Electrical fan is used for ventilation in which Temp. must 18 – 20°C and humidity must between 40 – 60%.
- **Apparatus :-**
 - 1) Processing tank are made up of stainless steel alloy for developer, fixer and washer
 - 2) Fixer is normally twice the volume of developer
 - 3) Washer is twice volume of fixer.

Dark room safe light

- Darkroom need a source of light, which will not fog film but still provide Adequate illumination under processing condition.
- This is provided by safe lighting
- *Safe light can be either :-*
 - 1) Direct
 - 2) Indirect



Direct safe lighting:-

- Lamp have than 15w bulb.
- It is covered with coloured filter paper . These paper are usually thin sheets of gelatin which is sand witched between 2 glass of sheets of lamp.
- Lamp are kept at a distance of 3ft.
- Safe light is usually kept above the manual processing area and above the automatic processor.

Indirect safe lighting:-

- To provide general illumination to the darkroom
- Safe light lamp direct the light towards the ceiling, which reflect it back into the room.
- Ceiling should be glossy pale or white with in 2.7 to 3.3 m.

Which colour filter to use?

- Xray films have the highest sensitivity to the blue-green part of the light spectrum. The xray film is less sensitive to light in the opposite region of the spectrum. - i.e. the yellow and red region. It is obvious that blue filter cannot be used, neither a green colour filter as it is so close to the blue.
- Therefore safelight are safest when made with amber or red filters.

Safelight illumination test

- Place a coin on a small piece of photo