**RAD 341 Image recording –First handout**

The processing area contain of:

1-viewing room

1-dark room:

* Where the latent image converts to real image.
* It should located near to the x-ray room ,away from radiation source and hot water pipes.
* It should be water proof and chemical resistant.
* Waals should be white in color.
* Good ventilation.
* The entrance of the dark room should allow the tech. easy to access and prevent the passage of the light “ROTATINGG DOOR”.
* The dark room contain 2 types of lights :

1. White lights used to perform cleaning of the room, repairing of the equipment, and any work needs good visibility.
2. Safe lights faced downward toward the working area , based on infrared.

The film has the min. Sensitivity to red lights and the max. to blue + blue green.

If the film has been exposed to the safe light for long time it will be FOGGED.

Dark room equipment:

1. Cassette hatch:

* Easley allow transportation of film and cassettes between viewing room and dark room.
* Divided to 2 sections labeled as “exposed and unexposed films”.
* It should be lightproof and lead shielded.
* Has an interlocking device which prevents the opening of the both sides in the same time, which prevents the entering of light to the dark room.

1. Film hopper:

* Light proof cone shaped drawer under the lower edge of the dry bench.
* It should be colored in black ”inside”.
* Outside “ DO NOT OPEN IN WHITE LIGHT”.

3-loading bench:

* To unload cassettes, prepare the films, and reload the cassettes.
* Made of Formica or hard wood.
* Easy to clean

4-Auto processor:

* Higher the temp. than the manual processor.
* Developer convertslatent image or Invisible to visible image
* The fixer remove remaining unexposed silver halides crystals and clear the film.
* The film washed to remove the fixer solutions.

5- x-ray film cassette:

* Container of exposed and unexposed films.
* Protect films from light.
* Variety of sizes.

Properties of the cassettes:

1. Light in weight.
2. Easy to open and close.
3. Capable to protect the film from lights “ lightproof”.
4. Able to provide good film to screen contact.
5. Exclude dust and dirt from sensitive screen.

The cassette contain of:

1-slide shutters.

2-lied shielded slice.

3-intensifiying screen :

* Basesupport all the component “ other layers”
* Phosphor layerthe active layer

Old style “ca. tangstatenew”used” rare earth .

1. Reflective layerto redirect lights to the film” to phosphor lyer”.
2. Protective layerto protect the phosphor layer.

How to care of the cassette:

1. Handle on dry bench.
2. Don’t leave it open.
3. Store in standing position to avoid the damage.
4. Prevent the contact of chemicals with screen.
5. Avoid dropping it to the floor.