

HELPFUL HINTS - FILM/SCREEN QUALITY CONTROL

DARKROOM CLEANING

Documentation is needed **daily**.

PROCESSOR QUALITY CONTROL

Documentation is needed **daily**.

- If the Medium Density (MD) and/or Density Difference (DD) fall **outside** the **+/-0.1** control limits, but **within +/-0.15**, the test should be **repeated** and **indicated** on **chart**. If the same result is obtained, it is acceptable to process clinical films, but the processor should be monitored closely. If MD and/or DD are **above +/-0.15**, the source of the problem must be **determined, corrected, repeated** (record 2nd value), and **documented** (with **explanation** of correction on front or back of **chart**) **before** clinical films are processed. If Base Plus Fog (B+F) is above + 0.03, the source of the problem must also be determined and corrected before any clinical films are processed.
- Make sure the reason for a **new start-up** is covered in the **ACR 99 QC manual** or have service **verify in writing** the reason for suggesting a **new** one. A new start-up is **not** the answer for getting the QC in limits, unless **all** other avenues have been exhausted.
- If a 5 or 10 day **startup** is needed, do a 5 film **temporary** set of values to have **limits** to work with over the length of the startup. **After** doing the 5 or 10 day average, go back and plot all individual values from the 5 or 10 days (starting with day **one**) on a **new** sheet after averages have been calculated and recorded
- If facility is **on** the **+/-0.10** line you are **within limits** and no action is needed. If you are on the **+/-0.15** line, then the action needed for between **0.10** to **0.15** is appropriate.
- **Developer temperature** needs to be **plotted** (versus recording numerical value below) on the control chart.
- The processor service should verify in **writing** the **correct developer temperature** for your film, chemicals, and processor.
- The film **speed step** should be the closest to **1.20** OD (but not less than). The film **contrast steps** should be the closest to **2.20** OD and **0.45** OD (but not less than).
- If you need to **adjust** density steps, do during a **crossover**. Use the **old step(s)** from the **old emulsion** and the **new step(s)** from the **new emulsion** and finish in the usual manner.

CROSSOVER ROLLERS

Documentation is needed **daily**.

- Facility should **add** a procedure for cleaning the crossover rollers to the records.

SCREEN CLEANING

Documentation is needed **weekly**.

- **Cassette outside cleaning** needs to be performed and documented **monthly**. Facility should **add** a procedure for cleaning the cassette outside to the records.

HELPFUL HINTS - FILM/SCREEN QUALITY CONTROL VIEWBOX CLEANING

Documentation is needed **weekly**.

PHANTOM IMAGE

Documentation is needed **weekly**.

- MQSA requires that if test results (including **fibers, specks, and masses**) fall **outside** of action limits, the source of the problem shall be identified and corrective action shall be taken before any further examinations are performed or any films are processed using the component of the mammography system that failed the test.
- If the reason for test result(s) outside of action limits is because of changes in **emulsion batch number**, it is **acceptable** to adjust the density control to **+1** or **-1** as needed. However, it is **not acceptable** to adjust density control function, if reason for the test result(s) outside of action limits is related to **processor** or **mammography unit** problems.

VISUAL CHECKLIST

Documentation is needed **monthly**.

REPEAT FILM ANALYSIS

Documentation is needed **quarterly**.

- The **overall percentage of repeats** is calculated by **dividing** the **total** number of **repeated** films, by the **total** number of films that were used during the **quarter** and then multiplying by 100. $23/1236 \times 100 = 1.9\%$
- The **percentage of repeats** in each **reason for repeat** category is calculated by dividing **number of films** in a particular **category**, by **total** number of **repeated** films and then multiplying by 100. $4/23 \times 100 = 17.4\%$

FIXER RETENTION

Documentation is needed **quarterly**.

DARKROOM FOG

Documentation is needed **semi-annually**.

FILM-SCREEN CONTACT

Documentation is needed **semi-annually**.

Optical density should kept between to @ **0.7-0.8**

COMPRESSION

Documentation is needed **semi-annually**.

- Record both **automatic** and **manual** compression in **lbs**. Compression in the **automatic mode** should be between **25** and **45 lbs**. If compression in **manual mode** goes above 50 lbs., simply record value as **>50 lbs.**, rather than taking the risk of cracking or stressing the paddle at higher pressures.