

RADIATION MACHINE COMPLIANCE AT DENTAL FACILITIES “Avoiding the five most common violations”

- **DARKROOM FOG (or white light leakage) TEST*** (recommended every 6 months)
 1. In a dark darkroom with safelight on, lay one film of panoramic/ceph film on top of processor or counter where film is routinely handled.
 2. Cover half of film with film box.
 3. Wait 2 minutes.
 4. Process film.
 5. If you can see a separation of light and dark on the film to show where the box was sitting, you have white light leaking into darkroom.
 6. Repeat test with safelight off to determine how much comes from the safelight.
 7. Repair room and/or safelight light leaks when identified.

* Tests performed by the state inspectors are more sensitive than this test. The above process determines gross fog.
- **FILM BADGES**

Each radiation machine facility **must** have records on site to demonstrate either six (6) consecutive months or four (4) consecutive quarters of personal film badge monitoring. If necessary, contact your monitoring company for copies of your records and keep them on site.

Monitoring must be redone if a facility increases the number of x-ray tubes, relocates, changes ownership or re-arranges the configuration of the radiation machines in the current location.
- **LOGBOOK FOR CHEMISTRY CHANGES, SERVICE, AND CLEANING**

Auto-processor and manual processor chemistry must be replaced per the chemistry manufacturer’s specifications which average every thirty (30) days. Your facility is required to maintain on site a **QUALITY ASSURANCE LOGBOOK** that tracks, at a minimum, dates and frequency of cleaning and servicing of your processor as well as changing of chemicals.
- **X-RAY EQUIPMENT – PM’s**

Radiation machine preventive maintenance is required to be performed by a State-registered service provider on the frequency recommended by each machine’s manufacturer. The usual frequency of recommended maintenance is every 12 months; however, check your machine owner’s manual(s). It is required that copies of all preventive maintenance service reports be submitted to the Radiological Health Program within 30 days following such service. Keep the original reports.

The inspector will ask to see a copy of your most recent preventive maintenance report for each machine, and you will be cited if these are not available. The inspector will also ask if you have submitted the most recent reports to the Department. Note that commonly cited technical deficiencies on x-ray equipment can be identified and corrected as part of your regular preventive maintenance.
- **UNDERPROCESSING FROM EQUIPMENT – PM’s**

Film underprocessing violations often result from technical deficiencies with the processor, such as wrong replenishment rates and improper temperature. These problems will be identified and corrected with preventive maintenance recommended by your autoprocessor’s owner’s manual. The average frequency of manufacturer recommended preventive maintenance is monthly. You must maintain copies of all processor related service tickets.