RADIOGRAPHY X-RAY SAFETY PROTOCOL (Non-Human Use)

Principal Investigator: __________________________ Phone: __________________________

Manufacturer: __________________________ Model: __________________________

General Safety Guidelines

1. Only personnel listed on the Machine Use Authorization (MUA) shall operate the radiography X-ray machine unsupervised. All authorized personnel must receive instruction in, and demonstrate an understanding of, the operation of the machine before starting work. The Principal Investigator (PI) must document training. An EH&S “Diagnostic X-ray Safety” internet exam and submittal of a Statement of Experience form is required before an individual can be authorized to use the unit.

2. Whole body dosimeters are required for all personnel working with a radiography X-ray machine. Dosimeters must be worn on the outside of lead aprons.

3. Use of the radiography X-ray machine must follow the procedures described in the manufacturers’ operating manual and/or the MUA safety protocol. Any variations in those procedures must be approved, in writing, by the UC Davis Radiation Safety Committee.

4. The operator should stand behind a protective barrier during the exposure, well away from the tube housing and patient during exposures. The operator should not stand in the useful beam. If the film must be held, it shall be held by individuals not occupationally exposed to radiation. The tube housing should not be held by the operator.

5. No individual shall be regularly employed to hold or support patients during exposures. Operating personnel shall not perform this service except very infrequently and then only in cases in which no other method is available.

6. The radiographic field shall be restricted to the area of interest.

7. Lead protective clothing (including aprons and gloves) shall be maintained in good repair and shall be inspected annually by the user. If they fail inspection, they shall be removed from service until they are repaired or replaced. (UCDHS P&P 1728)

8. Office of Environmental Health and Safety/UCDHS Health Physics (EH&S) does not recommend modifying the manufacturers built-in shielding. Call EH&S for an audit after any machine modification that may change the radiation output or shielding effectiveness.

9. The radiography X-ray machine must be secured to prevent unauthorized use. This can be accomplished through key control of the room or key control of the machine.

10. The PI must maintain an operating log, which includes the following information:
    a. Date of use  
    b. Operator  
    c. Beam voltage, current settings and time (kVp, mA, s)  
    d. Procedure

11. Immediately notify EH&S in the event an individual receives any abnormal radiation exposure.

12. Notify EH&S prior to changes in location, acquisition, disposal or transfer of a radiographic machine.

13. Copies of the California Code of Regulations - Title 17 and the Code of Federal Regulations - Title 10 are available at EH&S.

IN THE EVENT OF AN EMERGENCY CALL 911
OFFICE OF ENVIRONMENTAL HEALTH & SAFETY 752-1493
UCDHS HEALTH PHYSICS 734-3355