

**GUIDELINE FOR THE EVALUATION OF  
UNDER TABLE FLUOROSCOPIC X-RAY EQUIPMENT**



**WASTE MANAGEMENT  
& RADIATION CONTROL**

# **GUIDELINE FOR THE EVALUATION OF UNDER TABLE FLUOROSCOPIC X-RAY EQUIPMENT**

## **DRC Inspection Program Objective**

The overall objective of the Division of Radiation Control (DRC) x-ray inspection program is to reduce the likelihood that individuals will be exposed to unnecessary radiation. In the case of registrants using x-ray equipment in the healing arts, patient exposure is of concern and proper equipment performance is essential. Registrants are required to demonstrate that the equipment satisfies the appropriate regulatory standards for calibration and performance.

## **Purpose of Guideline**

The intent and purpose of this document is to provide users of **under table fluoroscopic x-ray equipment** guidelines for the documentation necessary to demonstrate to the DRC that the x-ray equipment satisfies the regulatory standards under clinical use conditions.

## **X-ray Equipment Performance and Calibration**

The registrant is to document that the following requirements are met.

- 1) Adequate total filtration is present.
- 2) kVp calibration is adequate for those mA stations used during spot filming.
- 3) The fluoroscopy timer terminates the exposure or produces an audible signal at the end of a five minute accumulative time interval.
- 4) Exposures are reproducible for phototimer spot film procedures.
- 5) During fluoroscopy, the x-ray field collimation and alignment with the image intensifier (II) is appropriate:
  - a) For both manual and automatic collimation, the maximum field is confined to the effective area of the II;
  - b) For automatic collimation, the field size adjusts appropriately as the source to intensifier distance (SID) and/or the magnification mode is varied.
- 6) During spot filming:
  - a) The x-ray field adjusts automatically to the correct portion of the film;
  - b) The resulting field size is acceptable; and
  - c) The center of the x-ray field aligns with the center of the film portion within the regulatory standards.
- 7) Fluoroscopic exposure rates do not exceed the regulatory standards.
- 8) Patient exposure information has been obtained for simulated clinical conditions and is posted where it is readily available to the physician during the procedure.