§ 37.43 Protection against radiation emitted by roentgenographic equipment.

Except as otherwise specified in §37.41, roentgenographic equipment, its use and the facilities (including mobile facilities) in which such equipment is used, shall conform to applicable State and Federal regulations (See 21 CFR part 1000). Where no applicable regulations exist, roentgenographic equipment, its use and the facilities (including mobile facilities) in which such equipment is used shall conform to the recommendations of the National Council on Radiation Protection and Measurements in NCRP Report No. 33, "Medical X-ray and Gamma-Ray Protection for Energies up to 10 MeV—Equipment Design and Use" (issued February 1, 1968), in NCRP Report No. 48, "Medical Radiation Protection for Medical and Allied Health Personnel" (issued August 1, 1976), and in NCRP Report No. 49, "Structural Shielding Design and Evaluation for Medical Use of X-rays and Gamma Rays of up to 10 MeV" (issued September 15, 1976). These documents are hereby incorporated by reference and made a part of this subpart. These documents are available for examination at ALOSH, 944 Chestnut Ridge Road, Morgantown, WV 26505, and at the National Institute for Occupational Safety and Health, 5600 Fishers Lane, Rockville, MD 20857. Copies of NCRP Reports Nos. 33, 48, and 49 may be purchased for $3, $4.50, and $3.50 each, respectively, from NCRP Publications, P.O. Box 30175, Washington, DC 20014.

EFFECTIVE DATE NOTE: At 77 FR 56730, Sept. 13, 2012, §37.43 was redesignated as §37.45 and the newly designated section was revised effective Oct. 15, 2012. For the convenience of the user, the revised text is set forth as follows:

§ 37.45 Protection against radiation emitted by radiographic equipment.

Except as otherwise specified in §37.41 and §37.42, radiographic equipment, its use and the facilities (including mobile facilities) in which such equipment is used, must conform to applicable State or Territorial and Federal regulations. Where no applicable regulations exist, radiographic equipment, its use and the facilities (including mobile facilities) in which such equipment is used must conform to the recommendations in NCRP Report No. 102, NCRP Report No. 147 (incorporated by reference, see §37.10).

§ 37.44 Approval of radiographic facilities that use digital radiography systems.

(a) Applications for facility approval. (1) Facilities seeking approval must demonstrate the ability to make high quality digital chest radiographs by submitting to NIOSH digital radiographic image files of a test object (e.g., a plastic step-wedge or chest phantom which will be provided on loan from NIOSH) as well as digital radiographic image files from six or more sample chest radiographs that are of acceptable quality to one or more individuals selected by NIOSH from the panel of B Readers and a qualified medical physicist or consultant, both designated by NIOSH. Image files must be submitted on standard portable media (compact or digital video disc) and formatted to meet specifications of the Digital Imaging and Communications in Medicine (DICOM) standard PS 3.12–2011 (incorporated by reference, see §37.10). Applicants will be advised of any reasons for denial of approval. All submitted images must be made within 60 days prior to the date of application using the same technique, equipment, and software as will be used by the facility under the requested approval. At least six chest radiographs and one test object radiograph must have been made with each digital radiographic unit to be used by the facility under the requested approval. The corresponding radiographic image files must be submitted on standard portable media (compact or digital video disc) and formatted to meet specifications of the current DICOM Standard PS 3.12–2011 (incorporated by reference, see §37.10). Application documentation must include the following: the identity of the facility where each radiograph was made; the X-ray machine used; and the model, version, and production date of each image acquisition software program and hardware component. The submitted sample digital chest image files must include at least two taken with the detector in the vertical position and two in the horizontal position where the imaging system permits these positions, and at least two chest images must be from persons within