



Successful Device Approvals

Industrial Radiography x-ray Training Syllabus
12/26/2012

- I. ***Fundamentals of Radiation Safety***
 - A. Characteristics of radiation
 - B. Units of radiation dose and quantity of radioactivity
 - C. Significance of radiation dose
 - 1. Radiation protection standards
 - 2. Biological effects of radiation dose
 - D. Levels of radiation from radiation sources
 - E. Methods of controlling radiation dose
 - 1. Working time
 - 2. Working distances
 - 3. Shielding
- II. ***Radiation Detection Instrumentation to be Used***
 - A. Use of radiation survey instruments
 - 1. Operation
 - 2. Calibration
 - 3. Limitations
 - B. Survey techniques
 - C. Use of personnel monitoring equipment
 - 1. Film badges
 - 2. Thermoluminescent dosimeters
 - 3. Pocket dosimeters
- III. ***Radiographic Equipment to be Used***
 - A. Remote handling equipment
 - B. Radiographic exposures devices
 - C. Storage containers
 - D. Operation and control of X-ray equipment
- IV. ***The Requirements of Pertinent Federal and State Regulations***
- V. ***Written Operating and Emergency Procedures***
- VI. ***Inspection and Maintenance Performed by the Radiographers***
- VII. ***Case Histories of Radiography Incidents***

Note that this course is designed to meet the requirements for radiographers using industrial radiography containing x-ray sources, not radioactive sources which may have additional classroom training requirements as per license conditions. For further information contact IRSC or your NRC or Agreement State regulator.