

Radiation Safety Officer Course Outline

Course Description

This course is designed to meet the requirements of the Code of Federal Regulations, Title 10, Part 34, "Licenses for Radiography and Radiation Safety Requirements for Radiographic Operation" including Appendix A.

Course Objectives

The purpose of this program is to fully acquaint the user with the potential hazards of radiation and the accepted means of adequate protection to all concerned. The frame work and guidance offered by the prevailing rules will be presented in great detail. Nondestructive testing nomenclature and explanation of commonly used symbols are discussed with their specific meanings. Upon successful completion of this course the attendee will be able to:

- Understand Radiation Safety, Biological Effects of Ionizing Radiation and Radiation Protection guides
- Understand Radiation Physics and its inter-relationship with matter.
- Have an understanding of the requirements of the Nuclear Regulatory Commission for Radiography technicians.

Course Content

Basic Atomic Physics

Industrial Gamma Ray Equipment

X-Ray Equipment and Production

Radiation Units for Measurement of Radioisotopes

Radiation Units for Measurement of Ionizing Radiation

Personal Maximum Permissible Doses

Proposed I.C.R.P. New Maximum Permissible Doses

Radiation Detection and Monitoring

Basic Principles of Radiation Protection

Leak Test and Storage of Radiographic Exposure Devices

Biological Effects of Ionizing Radiation

Nuclear Regulatory Commission Regulations

Documentation and Record Keeping

Transportation of Radioactive Material

Practical Session

Radiation Emergency Procedures

Radiographic Exposure Device Lost in Transit

Vehicle Accident During Transit of Radiographic Exposure Device

Radioactive Contamination

Radioisotope Source Capsule Assembly Disconnected from Drive Cable

Radioisotope Will not Return to Radiographic Exposure Device

Case Histories of Industrial Radiation Incidents