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 framework 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