Course Outline for Radiation Safety

40 Hour Radiation Safety Classroom Training

This radiation safety course is intended to address basic principles and fundamentals of radiation safety related to industrial radiography. Students will be given written quizzes at the end of each lesson and a comprehensive final exam. This course will help the student prepare for a formal IRRSP or company required radiation safety exam. A 100 question multiple choice exam will be given at the conclusion of this course. The student must receive a passing score of 70% on the final exam.

Module 1: Why do you need training?

• Upon completion of this unit, the student will be able to successfully state the value of safety in industrial radiography.

Module 2: Fundamental Principles

• Upon completion of this unit, the student will be able to successfully apply the properties of matter to radiation safety.

Module 3: Harmful Effects

• Upon completion of this unit, the student will be able to successfully describe biological effects of radiation.

Module 4: Controlling Exposures

• Upon completion of this unit, the student will be able to successfully calculate safe boundary sites using time and distance.

Module 5: Detection-Measurement

• Upon completion of this unit, the student will be able to successfully list and describe the uses of monitoring devices.

Module 6: Regulations

• Upon completion of this unit, the student will be able to successfully list and describe the duties of regulation agencies.
Module 7: Equipment

- Upon completion of this unit, the student will be able to successfully list and describe types of industrial radiography equipment.

Module 8: Permanent Installations

- Upon completion of this unit, the student will be able to successfully list and describe permanent installations.

Module 9: Operating and Emergency Procedures

- Upon completion of this unit, the student will have an understanding of the use of Operating and Emergency Procedures.

Module 10: Transportation of Sources

- Upon completion of this unit, the student will have an understanding of the proper transportation of radioactive material.

Module 11: Case Histories

- Upon completion of this unit, the student will be able to successfully explain the causes of accidents in radiography.

Module 12: RSO Section

- Upon completion of this unit, the student will have an understanding of the role of the Radiation Safety Officer (RSO).
Radiation Safety – 40 Hour

Addresses the basic principles and fundamentals of radiation safety related to industrial radiography. Prepares learners for a formal IRRSP or company required radiation safety exam. Training modules include:

- Fundamental Principles – apply the properties of matter to radiation safety
- Harmful Effects – study the biological effects of radiation
- Controlling Exposures – learn to successfully calculate safe boundary sites using time and distance
- Detection-Measurement – learn the uses of monitoring devices
- Regulations – learn the duties of regulation agencies
- Equipment – learn the types of industrial radiography equipment
- Permanent Installations – learn about permanent installations
- Operating and Emergency Procedures – gain an understanding of the use of Operating and Emergency Procedures.
- Transportation of Sources - gain an understanding of the proper transportation of radioactive material
- Case Histories – study the causes of accidents in radiography
- Radiation Safety Officer (RSO) – gain an understanding of the role of the Radiation Safety Officer