



RADIATION ADMINISTRATOR (RSO) TRAINING COURSE DESCRIPTION

1. **INTENDED AUDIENCE** - Who should attend this course and why?

This training course is intended for individuals preparing for Radiation Safety Officer (RSO) responsibilities and other individuals interested in an understanding of the regulatory requirements and fundamentals for administration of a company radiation safety program. This course provides RSO training in accordance with NRC and Agreement State regulatory requirements for qualification as a Radiation Safety Officer.

2. **LEARNING OUTCOMES** - What will the learner gain from this educational experience? How was the need for these learning outcomes assessed?

This course provides an understanding of the responsibilities, duties and regulatory requirements to administer an industrial radiography radiation safety program. Learning outcomes are assessed using results of written quizzes at the end of each topic and a final written examination.

3. **INSTRUCTOR QUALIFICATIONS**

William C. Plumstead Sr. began as a field technician in radiography in 1963. A registered professional engineer with an MBA degree, technical training includes various company training programs, Temple University NDT Engineering (3 semesters) and ASNT sponsored training. Plumstead has been approved and served as Radiation Safety Officer NRC (Nuclear Regulatory Commission) and the states of South Carolina, North Carolina, Florida, Georgia, Texas, is registered as a Radiation Consultant by the State of South Carolina. Instructed, trained, qualified and certified Radiographer and Assistant Radiographer personnel for more than 30 years.

4. **COURSE OUTLINE OF COURSE CONTENT**

Part 1 INTRODUCTION

Brief description of course objectives, structure and regulatory references for this required training.

Part 2 RSO Duties

Review of typical responsibilities and duties to function as an administrator for a company's industrial radiation safety program.

Part 3 Nuclear Regulatory Commission Requirements for Radiation Safety Officers.

Reviews NRC and Agreement State regulations for RSO qualification requirements.

Part 4 Radiation Safety Overview

Review of radiation principles and fundamentals; three basic methods of controlling exposure -- time, distance, and shielding. Biological effects of radiation exposure; Federal, state and local regulations for radiation protection posting requirements, and monitoring devices and ALARA principles.



Part 5 Radiographer and Assistant Radiographers

Review the responsibilities for radiographers and assistant radiographer qualification requirements; training, experience and qualification examinations to demonstrate competence. Performance review requirements.

Part 6 Reporting Requirements

Regulatory requirements for administrative records and emergency reporting requirements and content.

Part 7 Calibration of Equipment

Calibration of equipment requirements, intervals and records.

Part 8 Quarterly Inventory and Maintenance

Review inventory and maintenance requirements and records.

Part 9 License Application

Review elements of license application form. Including proper facility description, safety devices, personnel and other radiation monitoring equipment. Acquiring a monitoring badge service and source disposal arrangements.

Part 10 Radiation Safety Program

Required elements of an organization's Radiation Safety Program includes: organizational structure for responsibility, Emergency and Operating procedures, training procedures, personnel qualification procedures for radiographers and assistant radiographers. Restricted and source device storage areas. Transportation and shipping procedures.

5. **DEMONSTRATION OF LEARNING and SATISFACTORY COMPLETION REQUIREMENTS FOR CEU (Continuing Education Units)**

Successful completion of training requires that no more than one class session may be missed which shall be made-up by completing assigned self-study and successful completion of a quiz with a grade of at least 80%.

Additionally, each student must achieve at least 75% correct answers on a final (general) examination of at least 40 multiple choice question.

6. **FACILITIES:**

Training will be provided in an environmentally controlled comfortable classroom using audio-visual facilities, e.g. Power point presentation and marker board.

Instruction will be based on the Amersham Corporation "Gamma Radiography – Radiation Safety Handbook"; US Office of Education "Industrial Radiography Manual"; USNRC NUREG/BR-0024 "Working Safely in Gamma Radiography"; NUREG1556 "Consolidated Guidance About Material Licenses".