

Radiological Control Technician Training
Site Academic Training Instructor's Guide Phase I



Coordinated and Conducted
for
Office of Environment, Safety & Health
U.S. Department of Energy

This page intentionally left blank.

Course Developers

William Egbert	Lawrence Livermore National Laboratory
Dave Lent	Coleman Research
Michael McNaughton	Los Alamos National Laboratory
Bobby Oliver	Lockheed Martin Energy Systems
Richard Cooke	Argonne National Laboratory
Brian Thomson	Sandia National Laboratory
Michael McGough	Westinghouse Savannah River Company
Brian Killand	Fluor Daniel Hanford Corporation

Course Reviewers

Technical Standards Managers	U.S. Department of Energy
Peter O'Connell	U.S. Department of Energy
William D. Ulicny	ATL International, Inc.

This page intentionally left blank.

Table of Contents

	Page
Module 2.01 Radiological Documentation	2.01-1
Module 2.02 Communication Systems	2.02-1
Module 2.03 Counting Errors and Statistics	2.03-1
Module 2.04 Dosimetry	2.04-1
Module 2.05 Contamination Control	2.05-1
Module 2.06 Airborne Sampling Program/Methods	2.06-1
Module 2.07 Respiratory Protection	2.07-1
Module 2.08 Radioactive Source Control	2.08-1
Module 2.09 Environmental Monitoring	2.09-1
Module 2.10 Access Control and Work Area Setup	2.10-1
Module 2.11 Radiological Work Coverage	2.11-1
Module 2.12 Shipment and Receipt of Radioactive Material	2.12-1
Module 2.13 Radiological Incidents and Emergencies	2.13-1
Module 2.14 Personnel Decontamination	2.14-1
Module 2.15 Radiological Considerations for First Aid	2.15-1
Module 2.16 Radiation Survey Instrumentation	2.16-1
Module 2.17 Contamination Monitoring Instrumentation	2.17-1
Module 2.18 Air Sampling Equipment	2.18-1
Module 2.19 Counting Room Equipment	2.19-1

This page intentionally left blank.

Course Title: Radiological Control Technician
Module Title: Radiological Documentation
Module Number: 2.01

Objectives:

- ☞ 2.01.01 List the types of records/reports that the Radiological Control group is responsible for maintaining at your site.

- ☞ 2.01.02 Describe the types of records and reports used at your site by the Radiological Control Group, to include but should not be limited to:
 - a. Radiological Work Permits
 - b. Survey Reports
 - c. Analysis Reports
 - d. Radiological Deficiency Reports
 - e. ALARA Documentation
 - f. Exposure Reports

- ☞ 2.01.03 Explain the requirements for the records management system, such as QC, auditability/retrievability, management information at your site.

References:

1. 10 CFR Part 835 (1998) "Occupational Radiation Protection "
2. "Radiological Control Standard," DOE-STD-1098-99

Instructional Aids:

1. Overheads
2. Overhead projector/screen
3. Chalkboard/whiteboard
4. Lessons learned

I. MODULE INTRODUCTION**A. Self Introduction**

1. Name
2. Phone number
3. Background
4. Emergency procedure review

B. Motivation

A good Radiological Control Program must have a sound documentation process. RCTs are involved daily in creating records through surveys, RWPs, and procedures that give a history of actual conditions and operations.

C. Module Overview

1. Purpose and requirements
2. Radiological records management program
3. Radiological record keeping standards
4. Types of radiological records
5. Records management
6. Radiological reporting

D. Introduce Objectives

O.H.: Objectives

II. MODULE OUTLINE

NOTE: Most of the material for this section will come from specific site procedures. The instructor must be thoroughly knowledgeable in and have available for student use, procedures for RWP's, Radiological Occurrences, Records Maintenance, Inventories, and any

other RC procedure related to administration. In addition, any other procedure or procedural change can be covered in this section.

A. Purpose/Requirements

Discuss the purpose and requirements for records and reports at DOE facilities based on 10 CFR 835 and DOE RCS. Discuss any additional site requirements.

B. Radiological Records Management Program

1. Discuss the types of radiological records that should be included in the records management program.

- a. Quality Control
- b. Audits
- c. Records retrieval
- d. Management information

2. (Insert site specific information here.)

C. Radiological Record Keeping Standards

1. List the standards for record keeping.

2. Discuss the justifications for record keeping standards.

D. Types of Radiological Records

1. Identify and define the record categories:

- a. Employment History Records

Objective 2.01.01

Ask the students why it is considered necessary to include facility, specific location and function on documentation. Ask trainees why it makes sense to initial and date corrections.

<ul style="list-style-type: none"> b. Personnel Radiological Records c. Medical Records d. Radiological Training and Qualification Records e. Instrumentation and Calibration Records f. Radiological Control Procedures 2. (Insert site specific information here.) 	Objective 2.01.02
<ul style="list-style-type: none"> E. Records Management <ul style="list-style-type: none"> 1. Discuss storage requirements 2. (Insert site specific information here.) 	Objective 2.01.03
<ul style="list-style-type: none"> F. Radiological Exposure Reports <ul style="list-style-type: none"> 1. Purpose 2. Process 3. Examples of filled-out exposure reports 	
<p>III. SUMMARY</p>	
<ul style="list-style-type: none"> A. Review major points <ul style="list-style-type: none"> 1. Purpose and requirements 2. Radiological records management program 3. Radiological record keeping standards 4. Types of radiological records 5. Records management 6. Radiological reporting B. Review learning objectives 	

IV. EVALUATION

Evaluation should consist of a written examination comprised of multiple choice, fill-in the blank, matching and/or short answer questions. 80% should be the minimum passing criteria for examinations.

This page intentionally left blank.