

Advanced Medical Systems, Inc.

TRAINING IN RADIATION PROTECTION	Procedure: RSP-007	Revision No.: 000
	Page: 1 of 10	Date: December 28, 1995
	Approved by (Vice President):	
	Approved by (RSO):	
	Approved by (RSC Chair):	

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1 PURPOSE

In compliance with 10 CFR 19, this procedure describes the training program designed to instruct Advanced Medical Systems, Inc. (AMS) employees, contractors and visitors in the radiological hazards to which they may be exposed.

2 SCOPE

The contents of this procedure applies to all AMS employees, visitors and contractors who require unescorted access to the Controlled Area at AMS. Escorted personnel are exempt from the provisions of this procedure.

3 REFERENCES

- 3.1 U. S. Nuclear Regulatory Commission Radioactive Material License Number 34-19089-01.
- 3.2 Title 10, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports for Workers: Inspection and Investigations".
- 3.3 Title 10, Code of Federal Regulations, Part 20, "Standards for Protection Against Radiation"
- 3.4 Advanced Medical Systems, Inc., Radiation Safety Procedure No. RSP-001, "Radiation Protection Program Plan".

4 DEFINITIONS

The definition of terms used in this RSP that may not be commonly understood shall be found in RSP-002, "Definitions".

5 PROCEDURE

5.1 Responsibilities

- 5.1.1 The Vice President shall be responsible for ensuring implementation of this program.
- 5.1.2 The RSO shall be responsible for ensuring delivery, oversight and technical content of the training programs.
- 5.1.3 Supervisors and Authorized Users shall be responsible for ensuring that workers and visitors are trained prior to exposure to radiological hazards.

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5.2 Requirements

- 5.2.1 All AMS employees, contractors, and visitors with unescorted access to the controlled area shall be trained in regard to radiological hazards they might encounter.
- 5.2.2 Employees, contractors, and visitors who are escorted are exempt from the training requirements of this RSP.
- 5.2.3 The level of training shall be commensurate with the level of radiological hazard to which they may be exposed.

5.3 Radiation Protection Training Programs

- 5.3.1 The AMS training program is designed to accommodate three groups of personnel:

- 5.3.1.1 Visitors
- 5.3.1.2 General Employees (non-radiation workers)
- 5.3.1.3 Radiation workers

- 5.3.2 Visitors shall be trained by reading and signing a briefing form (Attachment 1).

- 5.3.3 General employees shall receive a General Employees Training in Radiation Protection (GET) program.

- 5.3.3.1 This program shall address the topics outlined in Attachment 2
- 5.3.3.2 The duration of GET should be approximately one (1) hour.
- 5.3.3.3 GET may be delivered as part of Hazard Communication Training provided to new employees.

- 5.3.4 Radiation workers shall receive the Radiation Worker Training in Radiation Protection (RWT) program.

- 5.3.4.1 This program shall address the topics outlined in Attachment 3
- 5.3.4.2 The duration of RWT should be approximately eight (8) hours.

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5.3.5 Special Briefings shall be made available on a case-by-case basis

5.3.5.1 Special briefings shall provide comprehensive and in-depth knowledge of certain radiation protection topics (e.g., remote handling, containments, engineering controls).

5.3.5.2 The need for Special Briefings shall be determined and arranged by the RSO.

5.4 When Training is Required

5.4.1 Visitors shall sign a "Visitor Radiation Protection Briefing" form at the start of each month that they have unescorted access to the controlled area.

5.4.2 General employees:

5.4.2.1 Shall receive GET within one week of assignment at AMS.

5.4.2.2 Shall be retrained at least annually thereafter by the end of the same quarter in which training was originally completed if the employee is at or has potential to work at the location covered by this RSP.

5.4.3 Radiation workers:

5.4.3.1 Shall receive RWT Training prior to entering any restricted area.

5.4.3.2 Shall be retrained annually thereafter by the end of the same quarter in which training was originally completed in order to maintain active radiation worker status.

5.5 Conduct of Training

5.5.1 Visitors may be briefed by any individual who has received GET or RWT.

5.5.2 GET and RWT shall be conducted by individuals who are trained and qualified to provide such training, and who have been approved, in advance, by the RSO.

5.6 Testing

5.6.1 Testing to demonstrate proficiency in RWT should be required for Radiation Workers and may be required for General Employees.

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5.6.2 The self-graded written test should address all of the required topics shown in Attachments 2 and 3.

5.7 Credit for Non-AMS Training Courses

5.7.1 Credit for previous training shall require the following:

5.7.1.1 Evidence of satisfactory completion of training (i.e., certificate, test results).

5.7.1.2 List of subjects covered in the training.

5.7.1.3 Test score, if available.

5.7.2 The RSO shall review the training documentation and make a determination of equivalency.

5.7.3 The basis for RSO's decision shall be documented.

6 EXEMPTION PROVISIONS

6.1 A waiver of GET shall require the approval of the RSO.

6.2 A waiver of RWT shall require the approval of the RSO and the Vice President.

6.3 Waivers shall be documented on the "Waiver of Training" form (Attachment 4).

6.4 All individuals who have training waived should be escorted by individuals who are currently trained.

6.5 Other variances and exceptions to the requirements of this RSP shall be permitted pursuant to the written authorization of the RSO and the Vice President.

7 DOCUMENTATION

7.1 All records pertinent to this procedure shall be maintained pursuant to RSP-004, "Radiation Protection Records".

7.2 The following training records shall be maintained, as applicable:

7.2.1 Instructor Qualifications

7.2.2 Course lesson plans.

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7.2.3 Test results.

7.2.4 Copies of tests.

7.2.5 Training attendance rosters.

7.2.6 Equivalency determinations.

7.2.7 Course critiques or critique summaries.

7.2.8 Certificates of completion.

7.2.9 Waivers of Training (Attachment 4).

7.3 Individual employee records shall be maintained by the Vice President.

8 ATTACHMENTS

8.1 Attachment 1: Visitor Radiation Protection Briefing

8.2 Attachment 2 - General Employee Training in Radiation Protection

8.3 Attachment 3 - Radiation Worker Training in Radiation Protection

8.4 Attachment 4 - Waiver of Training

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ATTACHMENT 1

VISITOR RADIATION PROTECTION BRIEFING

The following guidelines shall be read and acknowledged by signing the bottom of this form.

1. Visitors shall not enter any Restricted Area or any area posted with radiological warnings or cautions unless a Waiver of Training form has been completed and the visitor is properly escorted.
2. Visitors who do enter Restricted Areas shall have their dose estimated by the RSO or be issued a monitoring device.
3. During emergencies the visitor shall remain in the custody of their escort and follow the escort's instructions.

Visitor's signature: _____ Date: _____

Visitor's printed name: _____

Escort agreement: I understand that as the escort for the above mentioned visitor, I am responsible for their radiation protection while they are within the AMS controlled area. The visitor has been shown an example of a radiation symbol and a radiological caution sign.

Escort's signature: _____ Date: _____

Individual administering briefing:

Signature: _____ Date: _____

Distribution: RSO (original)
Visitor
Escort

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ATTACHMENT 2

GENERAL EMPLOYEE TRAINING IN RADIATION PROTECTION

1. General Employee Training in Radiation Protection (GET) is administered to all employees permitted unescorted access to the London Road Facility of AMS.
 2. GET addresses the following topics:
 - a. The type and form of radioactive material present at the facility.
 - b. The location of USNRC and AMS radiation protection policies and procedures.
 - c. Employee and management responsibilities for radiation safety.
 - d. Identification of radiation postings and barriers.
 - e. Emergency procedures.
 - f. Industrial safety.
 3. GET consists of classroom lecture and a question/answer period.
 4. Although not required, AMS may test individuals in GET to ensure proficiency. If a written test is administered, a score of 80% is required to successfully complete the course. Employees failing an exam shall review the incorrectly answered questions with the RSO. Following the review a second test may be administered. If so, a score of 80% is required for passing. Any employee failing the second test shall be required to attend another GET session.
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ATTACHMENT 3

RADIATION WORKER TRAINING IN RADIATION PROTECTION

1. Radiation Worker Training in Radiation Protection (RWT) is administered to any employee, visitor or contractor with the potential to receive in excess of 100 millirem TEDE within one calendar year at the London Road facility of AMS.
 2. RWT shall address the following topics:
 - a. Radioactivity and radioactive decay.
 - b. Characteristics of ionizing radiation.
 - c. Man-made radiation sources.
 - d. Acute effects of exposure to radiation.
 - e. Risks associated with occupational radiation exposures.
 - f. Special considerations in the exposure of women of reproductive age.
 - g. Dose-equivalent limits.
 - h. Modes of exposure - internal and external.
 - i. Dose-equivalent determinations.
 - j. Basic protective measures - time, distance, shielding.
 - k. Specific procedures for maintaining exposures as low as reasonably achievable.
 - l. Radiation survey instrumentation - calibration, use and limitations.
 - m. Radiation monitoring programs and procedures.
 - n. Contamination control, including protective clothing, equipment and work place design.
 - o. Personnel decontamination.
 - p. Emergency procedures.
 - q. Warning signs, labels, and alarms.
 - r. Responsibilities of employees and management.
 - s. Interaction with radiation safety staff.
 - t. The location of operational procedures associated with specific job assignments (e.g., handling radioactive material, HEPA filter changes).
 3. RWT consists of classroom lecture and a demonstration of practical abilities.
 4. RWT requires demonstration of proficiency by testing. Each part of the training will be evaluated and a passing score of 80% is required for each part.
 5. Review of incorrectly answered questions with the trainer, followed by retesting or repeating the course, are options available to "failed" employees.
 6. Workers will be given the opportunity to review their tests and have incorrect responses reviewed for the correct response.
 7. Workers with appropriate training and experience may elect to take examinations without benefit of the instruction if arranged in advance with the RSO.
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ATTACHMENT 4

WAIVER OF TRAINING

Individual's Name (Print): _____

Individual's Signature: _____

Training course being waived:

☐ General Employee Training in Radiation Protection

☐ Radiation Worker Training in Radiation Protection

☐ Classroom Training

☐ Practical Demonstrations

Reason: _____

Escort's Name (Print): _____

Escort's Signature: _____

APPROVALS:

RSO: _____
Signature Date

Vice President: _____
Signature Date

Distribution: RSO (original)
Individual
Escort

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6 EXEMPTION PROVISIONS

Variances and exceptions to the requirements of this Radiation Safety Procedure shall be permitted pursuant to the written authorization of the RSO and the Vice President.

7 DOCUMENTATION

- 7.1 Stop work actions and radiological protection hold points shall be documented and maintained by the RSO.
- 7.2 All other records that are pertinent to this procedures shall be maintained as described in RSP-004.

8 ATTACHMENTS

Attachment 1 - Stop Work Record

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ATTACHMENT 1 STOP WORK RECORD

Date/Time	Building/Location:	Description of Conditions which Triggered Stop-work Order:		
Item No.	Corrective Actions and Radiological Hold Points	Responsible Individual	Date/Time Hold Point Released	RSO Initials
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Stop Work Order Lifted on (date/time):

RSO (Signature):