

ADVANCED MEDICAL SYSTEMS OPERATING PROCEDURE

INSTRUCTIONS TO ANCILLARY PERSONNEL

ISP-28 Rev. 1/95

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- 1.0 PURPOSE: To instruct part time or occasional workers on the presence, storage and use of radioactive materials and the associated safety precautions and procedures.
- 2.0 PRECAUTIONS AND LIMITATIONS:
 - 2.1 This procedure applies to all part time or occasional workers who will be working in the Restricted Areas of the facility or in the vicinity of radioactive materials. It applies to both AMS and non-AMS personnel.
 - 2.2 The RSO or designee shall be responsible for providing training to these workers.
 - 2.3 Ancillary personnel will receive training prior to performing job assignments.
 - 2.4 Refresher training will be provided on an annual basis to permanent AMS employees, unless the employee requests or the RSO insists upon a more frequent basis.
 - 2.5 Ancillary personnel may be asked general questions relating to the training to determine their overall comprehension.
 - 2.6 Personnel with a previous radiation exposure history should complete Form ISP-28A, Certificate of Prior Dose.
 - 2.7 A copy of the signed record of training will be maintained at the Isotope Facility, and for AMS employees, also in their personnel file.

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Approved by: *R Meschter*

Date: 1-24-95

3.0 INSTRUCTIONS:

3.1 Outline of Worker Training.

3.1.1 Background discussion.

- a. Radiation.
- b. Radioactive contamination.
- c. Airborne contamination.
- d. Biological effects (acute and chronic).
- e. Prenatal exposure (Reg. Guide 8.13).

3.1.2 Personal monitoring.

- a. Film badges.
- b. Pocket dosimeters.
- c. Whole body frisking.
- d. ALARA concept - time, distance, shielding.
- e. Exposure limits - previous work history.
- f. Expected exposure levels.
- g. Right to receive exposure reports.

3.1.3 Facility tour.

- a. Locations of Restricted Areas.
- b. Areas of storage.
- c. Areas of transfer.
- d. Interpretation of signs and placards.
- e. Areas of unauthorized entry.

3.1.4 Protective devices.

- a. Protective clothing.
- b. Respirators.
- c. Fixed gamma ray detectors.
- d. Shielding materials.
- e. Equipment and tool monitoring.
- f. Trained radiation workers.

3.1.5 Response to warnings and alarms.

- a. Location of emergency exits.
- b. Personal safety first.
- c. Heed instructions of trained radiation worker.

3.1.6 The right to inquire or respond to any condition which they believe to constitute a violation of NRC Regulations.

CERTIFICATE OF PRIOR DOSE

ISP-28A

This certification is to be completed prior to the first entry into a Restricted Area during a work assignment under such circumstances that the individual could receive a dose in excess of 125mrem.

I certify that I have had no prior occupational dose during the current calendar year.

Printed Name: _____

Signature: _____ Date: _____

OR

I certify that my occupational dose for the current calendar year is _____ mrem.

Printed Name: _____

Signature: _____ Date: _____

Comments: _____

Reviewed by RSO: _____ Date: _____

STATEMENT OF TRAINING

ISP-28B

Name: _____ Soc. Sec. No.: _____

Employer: _____

*I have been trained to Advanced Medical Systems Operating Procedure
"Instructions to Ancillary Personnel", ISP-28, and Regulatory Guide
8.13, "Instruction Concerning Prenatal Radiation Exposure".*

Comments: _____

Signature of Trainee: _____ Date: _____

Signature of Trainer: _____ Date: _____

Reviewed by RSO: _____ Date: _____

- 5.3 Radiation Protection Methods
 - Use of instruments
 - Review of stay time, inverse square law, shielding
- 5.4 Specific procedures
 - Review of all change/modifications in procedures.
 - Training in all new procedures
 - Comment and discussion period regarding procedural changes
 - Review emergency procedures
- 5.5 Packaging and Transportation
 - Review proper package selection
 - DOT labeling, marking, placarding, shipping papers
 - Review DOT/NRC regulations
 - Packing and unpacking instructions
- 5.6 Job Specific Problems
 - Round table discussion within each job category regarding common problems, unusual situations encountered, etc.
 - Discussion of corrective action measures
 - Review of unauthorized field modification reports
 - Review observations from audits
 - Scenarios - discussion of response with regard to personal and radiation safety
- 5.7 Hands on Activities
 - Survey instrument use
 - Emergency procedures - mock drills (e.g., stuck shutter)
 - Examination of teletherapy equipment modifications (AMS engineering changes)
 - Contaminated source head, off scale dosimeter

ANNUAL REFRESHER TRAINING PROGRAM

- 1.0 PURPOSE: To meet training requirements in accordance with 10CFR19.12
- 2.0 SCOPE: This program is applicable to all individuals who work independently as Service Engineers, Isotope Technicians, and Isotope Handlers
- 3.0 OBJECTIVES: Upon completion of training, the individual will have reviewed fundamental radiation safety, current procedures and practices, license status and conditions, DOT and NRC regulations, job specific problems.

4.0 REQUIREMENTS

- 4.1 The training will consist of approximately 8 hours of instruction and review.
- 4.2 The instructor will be the RSU.
- 4.3 An oral or written examination as well as observation of hands on activities will be used to determine comprehension of the material presented. If the RSU determines that comprehension is not sufficient, provisions will be made for individual training in the deficient areas.
- 4.4 Individuals who complete the training will be issued a certificate of training which will generally outline the topics discussed.
- 4.5 Documentation of all training will be maintained by the RSU.

5.0 Program of Instruction

5.1 Radiation Theory

Isotopes

Types of radiation

Biological effects

Units of measurement

5.2 Radiation Protection Standards

Review of current regulations

Signs and labels

License status, conditions

Personnel exposure (actual vs. reg. limits)