

Western Michigan University
Radiation Safety

Training Program

I. Purpose

- A. To ensure exposure is maintained As Low As Reasonably Achievable (ALARA) through the use of knowledge and understanding of theoretical and practical information, and the need for adherence to the rules and regulations governing the use of radioactive material for their safety and the safety of the public.
- B. To ensure all personnel involved in the use, procurement, handling, and / or mitigation of events or emergencies are properly informed of their duties and responsibilities concerning such activity.

Table of Contents

Section	Title	Page
I.	Purpose	i
II.	Definitions	2
III.	Responsibilities	2
IV.	Requirements	
	A. Minimum	2
	B. Basic Training	2
	C. Authorized User Training	3
	D. Annual Refresher Training	3
	E. Miscellaneous Information Training	3
	F. Documentation	3
V.	Final Conditions	4

II. Definitions

Practical Application	The performance or simulation of a task in a lab or controlled setting.
RAM	An acronym for radioactive material.

III. Responsibilities

- A. Radiation Safety Officer (RSO)
 - 1. Develop the training material and course content.
 - 2. Conduct training or designate an instructor.
 - 3. Perform surveillances of training presented by a designated instructor.
 - 4. Maintain the documents required by this program.
- B. Authorized User (AUs)
 - 1. Verify all personnel using radioactive material or receiving occupational exposure under their supervision have satisfactorily completed radiation safety training and refresher training as required.
- C. All personnel using RAM, wanting to use RAM, or receiving occupational exposure.
 - 1. Satisfactorily complete a training course.
 - 2. Satisfactorily complete the required refresher courses.

IV. Requirements

- A. Minimum
 - 1. ***All personnel involved with the use or handling of radioactive material or radiation will receive training:***
 - a. ***Prior to using RAM or a radiation producing machine.***
 - b. ***Whenever there is a significant change in duties, regulations, or the terms of the license***
 - c. ***Prior to becoming an Authorized User.***
 - 2. ***All personnel must satisfactorily complete an ANNUAL refresher course appropriate to their level of authorization.***
 - 3. ***The RSO can waive some or all of the initial training based on proof of satisfactorily completing training at another facility.***
- B. Basic Training
 - 1. Consists of lecture and practical application methods.
 - 2. Individuals requiring this training must contact the RSO to schedule this training.

NOTE:	* denotes a lab or simulated performance of the task
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- 3. Topics include, but can be altered by the RSO based on the knowledge and experience levels of the class.
 - a. WMU policy, State and Federal Regulations

- b. Notice to Employees
 - c. Basic atomic structure, stability, sources, etc.
 - d. Radioactivity and its properties
 - e. Units used for activity, exposure, dose rates, transportation, etc.
 - f. Health effects
 - * g. Instruments
 - h. Exposure control/ALARA
 - * i. Contamination Control
 - j. Quality Control
 - k. Emergencies
 - l. Transportation
 - * m. Use of radiation producing machines
- C. Authorized User Training
- 1. Includes the basic topics
 - 2. Specific program training
 - * a. Quality Control
 - * b. Source Inventory and Control
 - c. Radiological Controls
 - d. Administration
 - e. Transportation and Radioactive Waste Program
 - * f. Instrumentation and Dosimetry Program
 - g. Emergency Response
 - * 3. Contamination control practicals
 - * 4. Dose determinations
- D. Annual Refresher Training
- 1. Review of the fundamentals.
 - a. Option to take a challenge exam for the fundamental review.
 - 2. Discussion of current events – internal and external.
 - 3. Program/control changes.
 - 4. Audit/surveillance findings and resolutions.
- E. Miscellaneous Information Training
- 1. As requested
- F. Documentation
- 1. Class attendance roster, including
 - a. Date,
 - b. Full Name; First , Middle Initial, and Last,
 - c. Contact Information,
 - d. Date of birth,
 - e. Supervisor or Authorized User,
 - f. Test grade.
 - 2. Test bank

V. Final Conditions

- A. All users of radioactive material and/or radiation producing machines are trained.

- B. Records of the training are maintained in accordance with the Administrative Controls Program.