

Western Michigan University

Radiation Safety

Training Program

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.

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I. Responsibilities

- A. Executive Manager
 - 1. Support the RSO and AUs in complying with the requirements of this program.

- B. Radiation Safety Officer (RSO)
 - 1. Develop the training material and course content.
 - 2. Conduct training or designate a qualified instructor.
 - 3. Perform surveillances of training presented by a designated instructor.
 - 4. Maintain the documents required by this program.

- C. Authorized User (AUs) and Radiation Workers (RWs)
 - 1. Satisfactorily complete a training course.
 - 2. Satisfactorily complete the required refresher courses.

II. Definitions

Practical Application	The performance or simulation of a task in a lab or controlled setting.
Radioactive / Licensed Material (RAM)	Source material, special nuclear material, or by-product material received, possessed, used, transferred, or disposed of under a license issued by the NRC.

III. Requirements

- A. Minimum
 - 1. All personnel involved with the use or handling of radioactive material or radiation will receive training: [10CFR19.12 / NUREG 1556 Vol 7]
 - 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. [10CFR19.12 / NUREG 1556 Vol 7]
 - 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 [10CFR19.11, 16 / 10CFR30.7 / NUREG 1556, Vol 7]
 - 1. Consists of lecture and practical application methods.
 - 2. Individuals requiring this training must contact the RSO to schedule training.
 - 3. Topics include, but can be altered by the RSO based on the knowledge and experience levels of the class.
 - a. WMU policy, procedures, and 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 (lab or simulated performance of the task)
 - h. Exposure control/ALARA
 - i. Contamination Control (lab or simulated performance of the task)
 - j. Quality Control
 - k. Emergencies
 - l. Transportation
 - m. Use of radiation producing machines
- C. Authorized User Training [10CFR30.33 / NUREG 1556, Vol 7]
- 1. Includes the basic topics
 - 2. Contamination controls (lab or simulated performance of the task)
 - 3. Dose determinations (lab or simulated performance of the task)
 - 4. Specific program training
 - a. Quality Control A (lab or simulated performance of the task)
 - b. Source Inventory and Control (lab or simulated performance of the task)
 - c. Radiological Controls
 - d. Administration
 - e. Transportation and Radioactive Waste Program
 - f. Instrumentation and Dosimetry Program (lab or simulated performance of the task)
 - g. Emergency Response
- D. Annual Refresher Training [10CFR19.12 / NUREG 1556 Vol 7]
- 1. Review of the fundamentals.
 - 2. Discussion of current events – internal and external
 - 3. Program/control changes
 - 4. Audit findings and resolutions
- E. Miscellaneous information training may be conducted as requested.
- F. Documentation
- 1. Class attendance roster
 - 2. Test bank

IV. 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.