


Name of Policy: Radioactive material disposal Policy Number: 3364-135-111 Approving Officer: Chief Executive Officer Responsible Agent: Assistant Professor & Deputy Clinical Service Chief Director Radiology Scope: The University of Toledo Medical Center Radiology		 Effective date: 05/2026 Original effective date: September 14, 2005	
Key words: Radioactive material, disposal, authorized user, rules and regulations, radiation exposure			
	New policy proposal		Minor/technical revision of existing policy
X	Major revision of existing policy		Reaffirmation of existing policy

(A) Policy statement

Only licensed nuclear medicine technologists, authorized users granted status by the Radiation Safety office, and radiation safety personnel are authorized to dispose of radioactive materials (RAM), in accordance with the rules and regulations from the Ohio Department of Health (ODH) and the United States Department of Transportation (DOT).

(B) Purpose of policy

To ensure that proper radiation safety procedures are followed, in accordance with applicable state and federal regulations, to mitigate unnecessary radiation exposure to staff, patients, visitors, and the environment.

(C) Procedure

- (1) The nuclear medicine hot lab room 1230 in the UTMC main hospital, and the PET/CT hot lab room 1070D in the Dana Cancer Center, where radioactive materials and waste are present will be locked and secured at all times, to prevent unauthorized access.
- (2) The designated hot labs are the only locations authorized to store RAM waste from nuclear medicine procedures. Waste containers that occupy too much space

may be removed by the radiation safety office for decay-in-storage (DIS) and disposal.

- (3) Items contaminated with RAM will be shielded and stored appropriately, dependent upon on the radiation properties of the radioisotope(s), and the level of radioactivity present. All radiation symbols must be defaced prior to disposal. RAM waste items may only be disposed of after readings document that radiation levels do not exceed background measurements.
- (4) All contaminated sharps used in the preparation and administration of radiopharmaceuticals will be placed in shielded biohazard sharps containers. Contaminated non-sharps items (e.g., gloves, bandages, absorbent pads, etc.) will be stored in the hot lab for decay and disposal. Once RAM sharps containers are $\frac{3}{4}$ full, the radiation safety office will be contacted to remove the container for DIS and with a new one. All contaminated items and their storage containers must be surveyed and results documented prior to disposal to demonstrate that readings are below background radiation levels.
- (5) All shipping containers containing RAM may not exceed DOT regulatory limits for the type of package being shipped. Unused routine (non-PET) radiopharmaceutical unit doses will be returned to the radio-pharmacy of origin. Unused PET radiopharmaceuticals will be placed in shielded containers for decay in the hot lab and only the empty cases will be sent back to the PET radio-pharmacy of origin. At no time will RAM be disposed of in the sink or sanitary sewer system.
- (6) All shipping containers transporting RAM will be surveyed and wipe-tested and results must be under department action levels prior to disposal. Contaminated items must be either decontaminated or stored in the hot lab to decay, until wipe-test results are below department action levels.
- (7) All survey, wipe-testing, and waste records must be properly documented and maintained for inspection for a minimum of (3) years, in accordance with ODH regulations.
- (8) RAM sealed sources being disposed will be leak tested prior to shipment, and the results must not exceed regulatory limits.

Approved by:	Policies Superseded by this Policy:
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<hr/> <p>Daniel Barbee, MBA, BSN, RN, FACHE Chief Executive Officer</p> <hr/> <p>Date</p> <hr/> <p>Nathan Egbert, MD Assistant Professor & Deputy Clinical Service Chief</p> <hr/> <p>Date</p> <hr/> <p>Ryan Landis, BSRT (R)(CT) Director, Radiology</p> <hr/> <p>Date</p> <p><i>Review/Revision Completed by:</i> Ryan Landis, BSRT (R)(CT) Director, Radiology</p>	<ul style="list-style-type: none">• R-027 <p>Initial effective date: September 14, 2005</p> <p>Review/Revision Date:</p> <ul style="list-style-type: none">May 29, 2008May 20, 2011May 19, 2014May 1, 2017May 1, 2020May 1, 2023May 1, 2026 <p>Next review date:</p>
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