

Steve Sisolak
Governor



Richard Whitley, MS
Director

DEPARTMENT OF
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DIVISION OF PUBLIC AND BEHAVIORAL HEALTH
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Lisa Sherych
Administrator

Ihsan Azzam,
Ph.D., M.D.
Chief Medical Officer

Technical Bulletin

Date: October 25, 2022
Topic: Proper Disposal of Medical Radioactive Waste
Contact: John Follette, manager, Radiation Control Program
To: Nuclear Medicine Departments

Purpose

The information in this technical bulletin is to remind medical licensees' nuclear medicine departments of the importance of proper disposal of radioactive waste materials created during and following treatments. **Recent discoveries of medical radioactive waste being delivered to Nevada landfills has prompted this bulletin.** It is the responsibility of every radioactive materials licensee to ensure proper disposal of radioactive waste and to ensure staff are properly trained on the requirements of disposal. Licensing of radioactive materials is regulated under the [Nevada Revised Statutes \(NRS\) Chapter 459](#) and [Nevada Administrative Code \(NAC\) Chapter 459](#). NAC 459.3062 adopts by reference Title 10 of the Code of Federal Regulations 10 (CFR) Part 35.

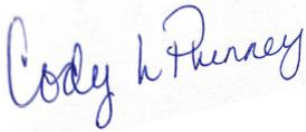
All radioactive waste must be stored in appropriate containers until its disposal, and the integrity of the waste containers must be assured. Radioactive waste containers must be appropriately labeled. All radioactive waste must be secured against unauthorized access or removal. Medical licensees must dispose of radioactive waste generated at their facilities in accordance with regulations in NAC 459.359-3615 and 10 CFR 35.92. Generally, medical licensees dispose of radioactive waste by one or both of the following methods:

- **Decay-in-storage** – eligible radioactive materials have a half-life of less than or equal to 120 days. The holding time of the waste should be based on the radionuclide(s) half-life and activity present when waste was placed in storage. **Such waste may be disposed of as in-house trash if radiation surveys of the waste indicate that radiation levels are indistinguishable from backgrounds levels.** Short half-life radionuclide products, such as Sm-153, Tc-99m/Mo-99 generator columns and Y-90 microspheres, may contain long half-life contaminants that may preclude disposal by decay-in-storage. Additionally, the licensee must conduct and document surveys of material prior to disposal in accordance with NAC 459.359-3615 and 10 CFR 35. Simply using 10 half-lives as a time limit and disposing of waste may result in the release of insufficiently decayed material should common isotope containing wastes such as Tc-99 and In-111 become mixed in storage.
- **Transfer to an authorized recipient** – check and calibration sources or other materials with half-lives greater than 120 days may not be held for decay-in-storage and must be disposed of in accordance with NAC 459.359-3615.

Licensees may use one or both methods to dispose of their radioactive waste. Medical licensees may be periodically contacted by the waste broker after receipt of potentially contaminated medical waste. Licensees must evaluate waste in accordance with NAC 459.359-3615 and manage the storage and disposal of the waste in accordance with applicable regulations and license conditions. Any solid wastes that are not stored for an appropriate period of time should never be disposed of in the sanitary trash. Failure to follow proper decay-in-storage procedures can result in potentially harmful human exposure to unauthorized radioactive materials (environmental hazards) being transported to local landfills where it is later identified by radiation detectors leading to investigation, citation and fining by the Radiation Control Program.

Questions

Visit the [State of Nevada Radiation Control Program web page](#) or call the Radiation Control Program at (775) 687-7550 for questions regarding this issue.



Cody Phinney, Deputy Administrator
Division of Public and Behavioral Health



Ihsan Azzam, Ph.D., M.D.
Chief Medical Officer