



Nevada Division of Public and Behavioral Health Information Bulletin



Topic: Waste Disposal of Unsealed Radioactive Material in Landfills

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To: Nevada Radiation Control Program, Licensees and Stakeholders

Date: December 16, 2016

The information contained in this bulletin is for all Nevada radioactive material licensees under the Nevada Revised Statute (NRS) Chapter 459 and Nevada Administrative Code (NAC), Chapter 459.

The Radiation Control Program (RCP) which is part of the Department of Health and Human Services, Division of Public and Behavioral Health has noted a recent increase in calls from the Las Vegas Apex Landfill regarding radiation monitor alarms at the dump site. The RCP has investigated several reports from the Apex Landfill and results have shown medical use unsealed radioactive material, specifically Tc99M and I-131 are being disposed of above background levels. It should be noted that the Apex Landfill is not licensed to receive radioactive waste. Please be aware the RCP will be focusing on the originator of the radioactive waste and enforcement may be pursued due to the concern for the health and safety of the public and violation of NAC 459 as discussed below.

There are general requirements for disposal of radioactive waste and can be found in NAC 459.359 Disposal of waste: General requirements. (NRS 459.201)

1. A licensee shall dispose of licensed radioactive material only:
 - (a) By transfer to an authorized recipient as provided in NAC 459.180 to 459.313, inclusive, and 459.8231 to 459.950, inclusive;
 - (b) By decay in storage;
 - (c) By release in effluents within the limits specified in NAC 459.335; or
 - (d) As authorized pursuant to NAC 459.3595 to 459.3615, inclusive.
2. A person must be licensed by the Division to receive waste containing licensed radioactive material from other persons for:
 - (a) Treatment before disposal;
 - (b) Treatment or disposal by incineration;
 - (c) Decay in storage;
 - (d) Disposal at a land disposal facility licensed pursuant to NAC 459.806 to 459.8225, inclusive; or
 - (e) Storage until it is transferred to a storage or disposal facility authorized to receive the waste.(Added to NAC by Bd. of Health, eff. 1-18-94; A by R084-98, 1-26-99; R149-07, 1-30-2008)

Most medical use unsealed radioactive material meets the regulatory requirements of having a half-life of less than or equal to 120 days. Therefore, the licensee may dispose of radioactive waste after using the decay-in-storage model. General requirements for decay-in-storage can be found in the Title 10, Code of Federal Regulations (CFR) part 35.92 which is adopted by reference in NAC 459.3062:

Decay-in-storage

- (a) A licensee may hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if it—
- (1) Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and
 - (2) Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee.
- (b) A licensee shall retain a record of each disposal permitted under paragraph (a) of this section in accordance with § 35.2092. [72 FR 45151, Aug. 13, 2007]

Guidance for decay-in-storage procedures can be found in NUREG 1556, Vol.9, Rev. 2, Appendix W.

If you have any questions please consult the NAC Chapter 459, 10 CFR part 35 and/or contact the State of Nevada Radiation Control Program at (775) 687-7550. Please provide questions and/or comments to RadiationControlProgram@health.nv.gov or mail questions and/or comments to: Radiation Control Program 675 Fairview Drive, Suite 218 Carson City, Nevada 89701.


SIGNATURE

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DATE

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