

MONTCLAIR STATE UNIVERSITY
LOW-LEVELS RADIOACTIVE WASTE
MANAGEMENT PLAN

The Nuclear Regulatory Commission (NRC) specify several allowable methods of disposal of low-level radioactive waste, some of which are limited to specific types of waste.

1. Discharge into sanitary sewers (10CFR §20.303). This method is only allowed if:
 - (a) The waste is readily soluble or dispersible in water.
 - (b) The quantity of radioactive material released in any one day and in any one month does not exceed certain small quantities.
 - (c) The quantity of radioactive material (excluding carbon-14 and hydrogen-3) released does not exceed one curie per year. The quantities of hydrogen-3 and carbon-14 released cannot exceed 5 curies per year and 1 curie per year respectively.
2. Unrestricted disposal (10CFR §20.306). Certain items can be disposed of without restriction by the NRC, such as liquid scintillation media and animal carcasses, if they contain minimal levels of radioactivity.

For any radioactive waste that is sent to a land disposal facility, or to a waste collector for eventual land disposal, the generator must meet certain requirement contained in 10CFR§20.311.

1. Prepare waste so it can be classified (see (2)), and so it meets the characteristics needed to facilitate handling at the disposal site and to provide protection of disposal site personnel (e.g., waste must not be explosive).
2. Label the packages of waste with the appropriate NRC waste classification (Class A, B or C)
3. Conduct a quality control program to ensure that the waste is properly classified and meets the NRC disposal characteristics.
4. Prepare a shipping manifest to accompany each waste shipment
5. Forward a copy of the manifest to the intended recipient at the time of shipment, or deliver a copy of the manifest to a collector at the time the waste is collected, obtaining acknowledgment of receipt.

6. Include a copy of the manifest with the shipment.
7. Retain a copy of the manifest and documentation of the acknowledgment of receipt from the collector or the land disposal facility.
8. If an acknowledgment of receipt is not received from the waste collector or from the disposal facility within one week of receipt, the generator must do the following;
 - a. Trace the shipment and file a report with the NRC.
 - b. Investigate if notification of receipt is not received within 20 days after transfer.

If the waste is not sent to a collector or directly to disposal, but instead to a waste processor who treats or repackages the waste, then the generator must meet requirements (4) – (8) above; the processor will be responsible for waste preparation and classification prior to disposal.

Whatever method of disposal is chosen for an institution's low-level waste, records of that disposal must be kept until the NRC authorizes their disposition.