

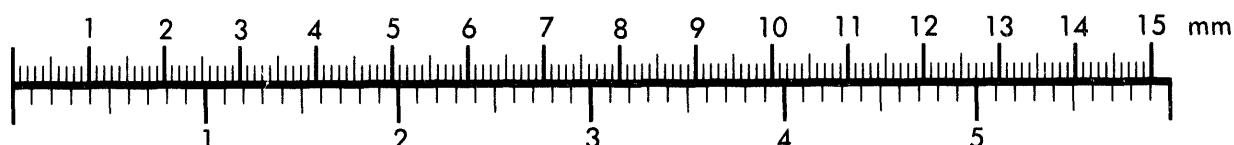


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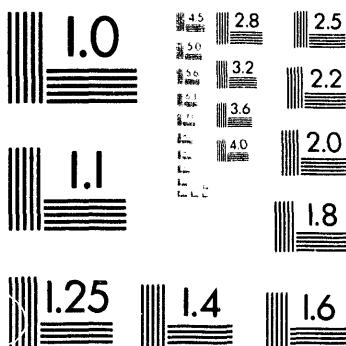
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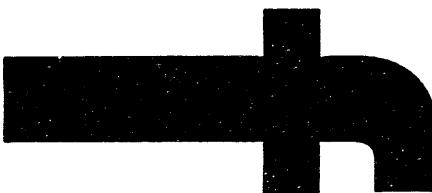
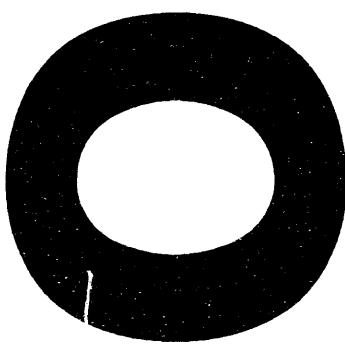
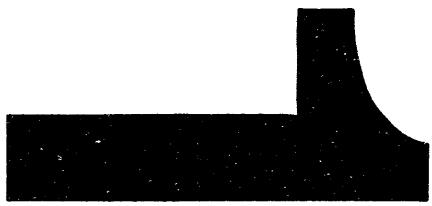
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Pretransport Requirements for Waste Generators

BACKGROUND: Specific pretransport regulatory requirements must be met by DOE prior to shipment of hazardous waste, low-level wastes (LLW), and radioactive mixed wastes (RMW). The pretransport requirements are intended to help reduce the risk of loss or leakage of, or exposure to, hazardous wastes, LLW, and RMW during shipment; and to communicate information on potential hazards to shippers, carriers, or receivers of waste shipments, and emergency response personnel in the event of an accident, spill, or leak. These goals are accomplished through tracking of shipments, correct packaging and labelling, and communication of potential hazards. Specific requirements include manifesting, packaging, marking and labeling of waste packages, placarding of vehicles, and selecting appropriate waste transporters and shipment destinations. This Information Brief focuses on the requirements associated with the pretransport of hazardous wastes, LLW, and RMW.

STATUTES: Hazardous Materials Transportation Act (HMTA); Hazardous Materials Transportation Uniform Safety Act of 1990 (HMTUSA); Resource Conservation Recovery Act (RCRA); and Atomic Energy Act of 1954 (AEA).

REGULATIONS: 10 CFR 20, "Standards for Protection Against Radiation;" 10 CFR 71, "Packaging and Transportation of Radioactive Material;" 40 CFR 261, "Identification and Listing of Hazardous Wastes;" 40 CFR 262, "Standards Applicable to Generators of Hazardous Waste;" and 49 CFR 171 to 177, Department of Transportation Hazardous Materials Regulations.

REFERENCES:

1. *Hazardous Waste Transportation, Interface Guidance Manual*, Environmental Protection Agency, 1981 NTIS Document PB 82-18261.
2. "A Review of the Department of Transportation Regulations for Transportation of Radioactive Materials," Department of Transportation, 1983.
3. "Shipment of Waste Originating in Radiation Control Areas," EM-331 Memorandum, May 17, 1991.
4. "Performance Objective for Certification of Non-Radioactive Hazardous Waste," EM-30 Memorandum, November 15, 1991.
5. "Process for Approving Site Procedures Governing the Release of Hazardous Waste Potentially Contaminated with Radionuclides," EM-30 Memorandum, November 15, 1991.
6. *Radiological Control Manual*, DOE/EH-02565, DOE Office of Environment, Safety and Health, June 1992.
7. "Low Level Waste Shipment Manifest Information and Reporting: Notice of Proposed Rulemaking," 57 FR 14500 Nuclear Regulatory Commission, April 21, 1992.
8. "RCRA Hazardous Waste Container Labeling, Marking, and Placarding Requirements," RCRA Information Brief, EH-231-031/0793, DOE Office of Environmental Guidance, RCRA/CERCLA Division, July 1993.
9. "Manifest Requirements," RCRA Information Brief, EH-231-038/0494, DOE Office of Environmental Guidance, RCRA/CERCLA Division, April 1994.
10. "Transportation of RCRA Hazardous Wastes," RCRA Information Brief, EH-231-013/0494, DOE Office of Environmental Guidance, RCRA/CERCLA Division, April 1994.
11. *Radiation Protection of the Public and the Environment*, DOE Order 5400.5.
12. *Safety Requirements for the Packaging and Transportation of Hazardous Materials, Hazardous Substances, and Hazardous Wastes*, DOE Order 5400.3.
13. *Radioactive Waste Management*, DOE Order 5820.2A.

What is the purpose of generator pretransport requirements?

Hazardous wastes, LLW and RMW cannot be transported outside facility boundaries (off-site) unless the applicable Department of Transportation (DOT), Department of Energy (DOE), Environmental Protection Agency (EPA), Nuclear Regulatory Commission (NRC), and State pretransport requirements are met. The overall purpose of those requirements is to identify the waste, contain it during transport, and communicate the waste's hazards to others. Identification of wastes is achieved through defined waste classification procedures. Containment of wastes is achieved through packaging. Communication of the waste's hazards is achieved through marking, labeling, and placarding (references 8 and 10).

What are the major generator pretransport requirements?

The major pretransport requirements are waste identification, selection of appropriate transporter and treatment or disposal facilities, preparation of manifesting documents, packaging of wastes, marking and labeling the containers, and placarding the transporter's vehicle.

DOT and EPA have pretransport requirements with which a generator or shipper must comply prior to the shipment of hazardous wastes. In addition, there may be pretransport requirements that the consignee or generator's State may impose for the transportation of hazardous wastes. Table 1 provides steps and the implementing regulations for pretransport requirements for hazardous wastes.

Table 1. EPA and DOT Pretransport Requirements for Hazardous Wastes:

Waste Classification	EPA 40 CFR 261 & 262.11; DOT 49 CFR 172.101
Obtain EPA Identification Number	EPA 40 CFR 262.12
Packaging	EPA 40 CFR 262.30; DOT 49 CFR 173
Marking & Labeling	EPA 40 CFR 262.31 and 262.32; DOT 49 CFR 172 Subpart D & E
Manifesting	EPA 40 CFR 262 Subpart B; DOT 49 CFR 172 Subpart C
Placarding	EPA 40 CFR 262.33; DOT 49 CFR 172 Subpart F

Shippers of LLW generated from DOE facilities must comply with NRC and DOT pretransport regulations and DOE Order 5430.3. DOE Order 5480.3 requires compliance with the DOT packaging standards in 49 CFR 173.7(d) and the NRC packaging requirements in 10 CFR 71 prior to shipping radioactive material (which includes LLW). Shipments of radioactive material must comply with requirements in the DOE Radiological Control Manual (ref. 6) and site-specific procedures. Table 2 provides NRC and DOT requirements for the shipment of LLW.

Table 2. NRC and DOT Pretransport Requirements for LLW

Waste Classification	NRC 10 CFR 61.55; DOT 49 CFR 172.101
Packaging	NRC 10 CFR 71; DOT 49 CFR 173 Subparts A, B, & I
Marking & Labeling	NRC 10 CFR 71.33; DOT 49 CFR 172 Subparts D & E
Manifesting	NRC 10 CFR 20; DOT 49 CFR Part 172 Subpart C
Placarding	DOT 49 CFR Subpart F
Advance Notification	NRC 10 CFR 71.97

On April 21, 1992, NRC proposed new manifesting and reporting regulations for the shipment of LLW. The rule proposes that generators, collectors, and processors of LLW will be required to certify that these wastes, prior to shipment, must be classified, described, packaged, marked, and labeled to meet DOT and NRC regulations (57 FR 14508).

For the shipment of RMW generated at DOE facilities, the shipper must meet all EPA, DOT, NRC and DOE pretransport requirements for shipment of hazardous wastes and LLW. Manifesting requirements are discussed in reference 9. Labeling, marking and placarding are discussed in reference 8.

When selecting a transporter and a TSDF, what requirements must they satisfy?

If the waste is hazardous, LLW, or RMW, the transporter must have an EPA Identification Number. In addition, the generator State, States through which the transporter passes, and the consignee State may have additional license, registration, and fee requirements. The designated treatment, storage, or disposal facility (TSDF) must be licensed by EPA or the authorized State for acceptance of the types of waste that are to be shipped [40 CFR 262.20 (b)].

Although DOE currently prohibits the disposal at a commercial TSDF of the radioactive component of RMW that was generated by DOE (unless a specific exemption is approved in

advance), DOE does allow the hazardous component of RMW to be treated at a commercial TSDF. The radioactive component (i.e., residue) must be returned to a DOE facility for ultimate disposal. The commercial TSDF must possess both a RCRA permit to treat the hazardous component of the RMW and a NRC license to accept the radionuclides present. A representative at the DOE facility must certify that the TSDF to which the radioactive waste is to be shipped for treatment has an NRC license to accept the radionuclides present in the waste. The certification must be documented (ref. 4).

What types of wastes may require advance notification of the generator State, States through which the transporter passes, and the consignee State?

Some States, counties, municipalities, and bridge and tunnel authorities may require advanced notification of shipments of hazardous and radioactive wastes through their jurisdiction. The transporter used and the appropriate State and local agencies should be consulted in order to determine whether advance notification is required. In addition, the NRC requires that the shipment of certain types of nuclear wastes require the notification of the consignee State prior to the shipment of those wastes. Please refer to 10 CFR 71.97 for the types of nuclear waste that require advance notification of the consignee's State.

Are there radioactive wastes that may not be subject to DOT pretransport requirements?

If the shipment of radioactive waste is for the purpose of national security and is escorted by personnel specifically designated by or under the authority of DOE, the waste is not subject to the regulations in 49 CFR 170 through 189 [49 CFR 173.7(b)].

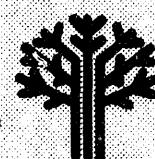
Certain radioactive materials (which may include LLW) may not be subject to the DOT pretransport requirements in 40 CFR 171 (see 49 CFR 171.421 through 171.423 and 171.427 for the list of specific radioactive materials not subject to DOT pretransport requirements.)

How does DOE's Moratorium on shipment of radioactive or potentially radioactive wastes affect pretransport requirements?

DOE has placed a moratorium on off-site shipments of certain wastes. The moratorium requires DOE sites to "...cease the shipment to commercial facilities not licensed by the NRC or an agreement State of any RCRA-hazardous or TSCA-regulated waste originating in a radiological controlled area until further notice...." (ref. 3). The moratorium was established in response to concerns that the lack of established release criteria "...which has created a situation in which RMW could be released to treatment or disposal facilities which are not licensed for management of radioactive materials..." (ref. 4).

DOE Headquarters's lifting of the moratorium for any site will be based upon approval of site policies, criteria and procedures reflecting standards for unrestricted transportation of waste to off-site commercial TSDF facilities (ref. 4). The moratorium has been lifted at some sites, but is still in effect at others.

Questions of policy or questions requiring policy decisions will not be dealt with in EH-231 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning the subject material covered in this Information Brief to Mark Petts, RCRA/CERCLA Division, EH-231, (202) 586-2609.



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