

**TENNESSEE DEPARTMENT OF TRANSPORTATION
DISPOSAL CORE PLAN FOR THE MANAGEMENT OF
HAZARDOUS WASTES, UNIVERSAL WASTES, AND USED OIL**

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ACRONYMS

<i>CFR</i>	Code of Federal Regulations
CSQG	Conditionally Exempt Small Quantity Generator
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
HEPA	High Efficiency Particulate Air
LDR	Land Disposal Restrictions
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
RCRA	Resource Conservation and Recovery Act
SQG	Small Quantity Generator
TDEC	Tennessee Department of Environment and Conservation
TDOT	Tennessee Department of Transportation
TSDF	Treatment, storage, or disposal facility
TNRule	Tennessee Rule

EXECUTIVE SUMMARY

This plan provides the general requirements for the disposal of RCRA hazardous waste, universal wastes, and used oil generated at Tennessee Department of Transportation (TDOT) facilities. The plan identifies the basic responsibilities of the TDOT Environmental Coordinator and TDOT Operations Managers for disposition of wastes at on-site and off-site locations. In order to ensure that proper disposal of wastes occurs at TDOT facilities, additional technical directives or memoranda may be necessary on a case-by-case basis at the discretion of the TDOT Environmental Coordinator.

Use of this guidance will facilitate the proper disposition of waste covered within the scope of this plan.

1.0 SCOPE AND LIMITATIONS

The requirements of this plan are applicable to all Tennessee Department of Transportation (TDOT) operations and facilities that are generators and dispose of hazardous waste, universal waste that is recycled, or used oil. Hazardous wastes are those wastes regulated by the Resource Conservation and Recovery Act (RCRA). Universal wastes are specific wastes such as batteries, lamps, certain pesticides, or mercury thermostats that are recycled. Used oil includes oil drained from vehicles or equipment that is collected for recycling or burning for energy recovery. The TDOT Characterization Core Plan provides further guidance concerning the identification and characterization of hazardous waste, universal waste, and used oil.

This plan outlines generator requirements and land disposal restrictions (LDRs). These requirements include offering waste for off-site treatment, storage, and/or disposal; manifesting hazardous waste shipments; and compliance with the LDRs. Responsibilities for the TDOT Environmental Coordinator and TDOT Operations Manager are outlined in Section 2.0 of this plan.

Section 3.0 provides the requirements associated with the disposal of hazardous wastes applicable to conditionally exempt small quantity generators (CSQGs), small quantity generators (SQGs), and large quantity generators (generators). Disposal requirements such as manifesting, documentation, notification, and on-site treatment are included within this section.

Section 4.0 provides an overview of the land disposal restrictions (LDRs) that apply to restricted hazardous wastes. The LDRs specify that restricted hazardous waste must meet applicable treatment standards prior to land disposal and that notification (or certification) statements be provided to the receiving treatment, storage, or disposal facility (TSDF).

Sections 5.0 and 6.0 provide guidance on acceptance of wastes by off-site TSDFs and treatment of wastes at TDOT facilities.

The requirements for on-site handling of universal wastes are included in Section 7.0 of this plan. These wastes include batteries, thermostats, and mercury lamps that are to be recycled. The requirements discussed in Section 7.0 include pre-shipment, shipment, recordkeeping, and on-site treatment of universal wastes.

Section 8.0 of this plan provides the requirements associated with the disposal of used oil. This section applies only to used oil that is being disposed of by recycling and that has not been mixed with a hazardous waste as defined within the TDOT Characterization Core Plan. The transportation and notification requirements applicable to the transport of used oil to off-site facilities are also discussed in this section.

To ensure proper disposition of all hazardous wastes, universal wastes, and used oil generated by TDOT operations and facilities, additional technical directives or memoranda may be required on a case-by-case basis. This plan is intended to provide guidance regarding the general requirements associated with the disposition of waste .

2.0 RESPONSIBILITIES

2.1 TDOT ENVIRONMENTAL COORDINATOR

The TDOT Environmental Coordinator has the overall responsibility for implementation of the RCRA Compliance Program. With respect to the requirements of this plan, the TDOT Environmental Coordinator is responsible for the following:

- Issuance and control of this plan.
- Ensuring that the requirements of this plan conform to the applicable portions of 40 *CFR* Parts 262/TNRule 1200-1-11-.03, 40 *CFR* Part 268/TNRule 1200-1-11-.10, 40 *CFR* Part 273/TNRule 1200-1-11-.12, and 40 *CFR* Part 279/TNRule 1200-1-11-.11.
- Developing and issuing facility and operation specific waste management procedures that meet the minimum content requirements of this plan.
- Ensuring that generator status determinations are made for all TDOT facilities and, where required, Installation Identification numbers are acquired from Tennessee Department of Environment and Conservation (TDEC).
- Ensuring that working-level procedures are developed to ensure the compliance of TDOT Operations with this plan.
- Ensuring that all vendors used by TDOT Operations are permitted and licensed to accept or ship wastes.
- Monitoring and coordinating the volumes of hazardous waste, universal waste, and used oil shipped from TDOT facilities to facilitate the preparation of RCRA Annual Reports, where applicable.
- Assisting TDOT Operations Managers in complying with the requirements of this plan as necessary.
- Developing an approved vendor list of transporters and treatment, storage, or disposal facilities that have the appropriate licenses and permits to accept waste for shipment or disposal.
- Preparing budget requests to ensure proper waste disposition.

2.2 OPERATIONS MANAGERS

Operations Managers at TDOT Regional and District Facilities are responsible for the implementation of that facility's RCRA Compliance Program in accordance with this plan, other core plans, Headquarters-issued procedures and directives, and operation-specific instructions or procedures. The term Operations Manager as used in this plan includes TDOT Region Managers, TDOT District Managers, garage managers or individuals designated by TDOT Managers responsible for disposition of hazardous waste, universal waste, or used oil. With respect to the requirements of this plan, the Operations Managers are responsible for the following:

- Ensuring that wastes subject to this plan are transported for disposal or are disposed by entities holding the appropriate licenses and permits to offer such services.
- Completing hazardous waste manifests for off-site shipments of hazardous waste.

- Completing exception reports, when necessary.
- Ensuring that all packaging, labeling, marking, and DOT placarding requirements are met for off-site shipments of hazardous waste, universal waste, and used oil.
- Maintaining required records and information.
- Ensuring that all wastes shipped off-site conform to the waste acceptance criteria of the receiving facility.
- Maintaining all documentation and records necessary to demonstrate compliance with this plan.
- Tracking the volume of waste shipped to each facility for disposal and supporting the completion of the annual hazardous waste report .
- Requesting assistance from the TDOT Environmental Coordinator as necessary in order to comply with the requirements of this plan.

3.0 HAZARDOUS WASTE DISPOSAL REQUIREMENTS

This section lays out the requirements for off-site disposition and on-site treatment of hazardous wastes. The requirements vary based upon the generator status of the facility (i.e., CSQG, SQG, or large generator, as defined within the Core Accumulation Plan) as defined in Section 3 of the Hazardous Waste Core Accumulation Plan.

3.1 CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS

A CSQG that generates less than 100 kilograms of hazardous waste in a calendar month (or less than 1 kilogram of acute hazardous waste in a calendar month) is subject to the requirements specified at 40 *CFR* 261.5 and TN Rule 1200-1-11-.02(1)(e)¹, which are limited in nature provided that the generator does not exceed the specified storage quantity limits specified in Section 3 of the Hazardous Waste Core Accumulation Plan.

A CSQG may dispose of hazardous waste generated at the facility through one of the following methods:

- Treat or dispose of the hazardous waste in an on-site treatment or disposal unit provided the unit is either permitted under TN Rule 1200-1-11-.07 or 40 *CFR* Part 270², to manage hazardous wastes, or is an interim status facility operating under the requirements of TN Rules 1200-1-11-.05 and 1200-1-11-.07 or 40 *CFR* Part 265³ for management of hazardous wastes (for historic units managing a newly regulated hazardous waste).
- Ensure compliant delivery to an off-site treatment, storage, or disposal facility that is permitted under TN Rule 1200-1-11-.07 or 40 *CFR* Part 270⁴ to manage hazardous wastes, or is an interim status facility operating under the requirements of TN Rules 1200-1-11-.05 and 1200-1-11-.07 or 40 *CFR* Part 265⁵ for management of hazardous wastes.
- Ensure compliant delivery to an off-site treatment, storage, or disposal facility that is authorized by the state to manage hazardous waste under an approved hazardous waste management program.
- Ensure compliant delivery to an off-site treatment, storage, or disposal facility that is permitted, licensed, or registered by the state to manage municipal solid waste (if management occurs in a landfill the unit must be subject to 40 *CFR* Part 258).
- Ensure compliant delivery to an off-site treatment, storage, or disposal facility that is permitted, licensed, or registered by the state to manage non-municipal non-hazardous waste (if managed in a disposal unit the unit must be subject to the requirements in 40 *CFR* 257.6 through 257.7).
- Ensure compliant delivery to an off-site treatment, storage, or disposal facility that beneficially uses or reuses, or legitimately recycles or reclaims the waste.
- Ensure compliant delivery to an off-site treatment, storage, or disposal facility that treats waste prior to beneficial use or reuse, or legitimate recycling, or reclamation.

- If the waste is a universal waste as described in the Hazardous Waste Core Accumulation Plan, ensure compliant delivery to an off-site treatment, storage, or disposal facility that is a handler or destination facility for universal waste and that has notified the state of such activities.
- If the waste is used oil as described in the Hazardous Waste Core Accumulation Plan, ensure compliant delivery to an off-site marketer or burner/blender of used oil, or reuse on-site oil-fired space heaters as required at TN Rule 1200-1-11.11 and 40 *CFR* Part 279⁶.

In addition to on-site treatment or disposal within a permitted or interim status unit, a CSQG may also treat and/or dispose of wastes in processes that are not subject to the permit requirements, such as elementary neutralization units or closed loop recycling. Elementary neutralization is the neutralization of hazardous wastes that are hazardous only because the waste exhibits the hazardous waste characteristic of corrosivity and the treatment occurs only in a tank, container, transport vehicle, or vessel as defined in 40 *CFR* 260.10 and TN Rule 1200-1-11-.01. Closed loop recycling is where the waste is reused in the process generating the waste without reclamation or disposal of a portion of the waste prior to recycle. Treatment of CSQG hazardous waste will be reviewed and approved by the TDOT Environmental Coordinator prior to any on-site treatment.

Although a CSQG is not subject to the manifest requirements usually applicable to the shipment of hazardous wastes to off-site facilities, in order to demonstrate compliance with the CSQG requirements documentation such as shipping papers, invoices, or similar documentation should be maintained by the generating TDOT facility for a minimum of three years after shipment of the waste off-site for treatment or disposal. The maintenance of such documentation is not required by the regulations but should be followed as a best management practice to demonstrate compliance. The TDOT Operations Manager shall maintain these records.

3.2 SMALL QUANTITY GENERATOR AND LARGE QUANTITY GENERATOR DISPOSAL REQUIREMENTS

The regulations found at 40 *CFR* Part 262 and TN Rule 1200-1-11-.03 differentiate types of generators based upon the monthly quantity of hazardous waste a given facility generates. A facility is designated as an SQG if the amount of hazardous waste generated on a monthly basis is greater than 100 kilograms but less than 1,000 kilograms. A large quantity generator is a facility where hazardous waste is generated at the rate of greater than 1,000 kilograms per month.

Although the regulatory requirements differentiate between an SQG and a large quantity generator, the requirements for disposal of hazardous wastes by these entities are the same and are discussed concurrently within this section. For purposes of this document, generator shall include the terms “generator” and “small quantity generator” as those terms are defined in 40 *CFR* Part 260 and TN Rule 200-1-11-.01⁷ unless otherwise noted.

3.2.1 Installation Identification Numbers

Hazardous wastes may not be treated, stored, disposed of, or offered for transport by a generator that has not received an installation identification number. All operations and facilities that generate hazardous waste must request and receive an installation identification number by notifying the Tennessee Department of Environment and Conservation prior to treatment or disposal of hazardous waste. In addition, TDOT generator facilities and operations may not offer hazardous waste for transportation or treatment, storage, or disposal to transporters that do not have an installation identification number or off-site treatment,

storage, or disposal facilities that do not have an installation identification number and an operating permit to treat, store, or dispose of hazardous waste.

To ensure that only licensed transporters or permitted facilities are used for shipment or off-site disposal of hazardous waste from TDOT generator facilities, the TDOT Environmental Coordinator or their designee will contact the transporter and receiving facility. The TDOT Environmental Coordinator will confirm with the transporter or off-site treatment, storage, or disposal facility that they have the required installation identification number and/or operating permit prior to any shipment of hazardous waste.

3.2.2 Manifest Requirements for Off-Site Shipments

The requirements of this section apply to transportation of hazardous waste by road.

A manifest (OMB control number 2050-0039) must be prepared for all off-site shipments of hazardous waste as shown in Figure 1. The manifest shall be acquired from the consignment state (i.e., state in which the receiving facility is located) unless the state in which the generator is located requires the use of its own manifest for all shipment originating in the state. The TDOT Operations Manager, with assistance from the TDOT Environmental Coordinator, is responsible for proper completion of the manifest for each shipment from their facility. The manifest shall be completed in accordance with the instructions provided in Appendix to 40 *CFR* Part 262 (TN Rule 1200-1-11-.03(9)).

The TDOT Operations Manager shall ensure that the following information specified within the instructions is recorded on the required manifest required to accompany each hazardous waste shipment including the following:

- The 12-digit installation identification number for the generating facility.
- The unique five digit manifest number assigned to the manifest.
- Total number of pages used to complete the manifest.
- The name and mailing address of the TDOT generating facility.
- The phone number of the TDOT generating facility.
- The name of the transportation company used to ship the hazardous waste.
- The 12-digit installation identification number of the transportation company.
- If transportation will involve more than a single transportation company, the name(s) of the second and subsequent transportation companies listed in the order that they will be transporting the waste.
- If transportation will involve more than a single transportation company, the 12-digit installation number(s) for each transportation company in the order that they will be transporting the waste.
- The name and site address of the facility designated to receive the waste listed on the manifest.
- The 12-digit installation identification number for the facility designated to receive the waste listed on the manifest.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page	Information in the shaded areas is not required by Federal law		
3. Generator's Name and Mailing Address				A. State Manifest Document Number			
				B. State Generator's ID			
4. Generator's Phone ()				C. State Transporter's ID			
5. Transporter 1 Company Name		6. US EPA ID Number		D. Transporter's Phone			
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID			
9. Designated Facility Name and Site Address		10. US EPA ID Number		F. Transporter's Phone			
				G. State Facility's ID			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity		14. Unit Wt. Vol	15. Waste No.
				No		Yes	
a							
b							
c							
d							
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information							
<p>16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.</p> <p>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.</p>							
Printed/Typed Name		Signature			Month Day Year		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials						
	Printed/Typed Name		Signature		Month Day Year		
FACILITY	18. Transporter 2 Acknowledgement of Receipt of Materials						
	Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name		Signature			Month Day Year		

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete

Figure 1. Manifest

- The proper U.S. Department of Transportation (DOT) Proper Shipping Name, Hazard Class, and Identification Number (UN/NA) for each waste listed on the manifest as identified in 49 *CFR* 171 through 179⁸.
- The number of containers and container types for each waste listed on the manifest (container types will be identified through the use of the appropriate codes listed within the manifest completion instructions).
- The total quantity of each waste listed on the manifest.
- The appropriate units for weight or volume used to based upon the waste type for each waste listed on the manifest (unit types will be identified through the use of the codes listed within the manifest completion instructions).
- The point of departure (city and state) if the waste is to be shipped for treatment, storage, or disposal at a facility outside the United States. (This space may also be used to indicate special transportation, treatment, storage, or disposal information of Bill of Lading Information in the case of shipments to facilities within the United States, but is not required).
- Signature of the Generator's Certification Statement.

The TDOT Operations Manager or their designee shall sign all manifests for shipment of hazardous waste. The TDOT Operations Manager shall also be responsible for the following:

- Signature of the manifest prior to release of the shipment;
- Ensuring that the transporter signs the manifest prior to release of the shipment;
- Acquiring a copy of the manifest signed by the transporter; and
- Providing the remaining copies of the manifest to the initial transporter to accompany the shipment.

Special requirements apply if shipment of hazardous waste occurs by water or rail. No shipments of hazardous wastes by water or rail may occur without approval by the TDOT Environmental Coordinator. The TDOT Environmental Coordinator and the affected TDOT Operations Manager shall deal with shipments of hazardous waste that occur solely by water, or by rail, on a case-by-case basis. In these cases, the TDOT Environmental Coordinator shall issue specific technical guidance or a memorandum outlining the steps necessary to comply with the manifest requirements for shipment solely by water or involving rail shipments.

The TDOT Operations Manager shall maintain copies of all signed manifests at the Regional or District office where the shipment of hazardous waste originated. Copies of the signed manifests will be maintained for at least three years after the date of shipment.

3.3 EXCEPTION REPORTING

The exception reporting requirements are fully applicable only to TDOT facilities that generate greater than 1,000 kilograms of hazardous waste in a calendar month (large quantity generators). The TDOT Operations Manager who does not receive a signed copy of the manifest from the receiving treatment, storage, or disposal facility within 35 days from the date the waste was accepted by the original

transporter must contact the transporter company and/or the designated treatment, storage, or disposal facility to determine the status of the shipment. If a signed copy of the manifest is not returned to the TDOT Operations Manager of the facility where the shipment was originated and does not receive a signed copy of the manifest within 45 days of the date the waste was accepted by the original transporter, they must file an exception report with TDEC within 5 days after the 45-day period expires. The exception report must include the following:

- A legible copy of the manifest for which the TDOT Operations Manager does not have confirmation of delivery to the designated facility.
- A cover letter signed by the TDOT Operations Manager explaining the steps that have been taken to locate the hazardous waste and the results of those efforts.

The TDOT Operations Manager of facilities that generate greater than 1,000 kilograms of hazardous waste in a calendar month must maintain copies of any exception report for at least three years.

3.3.1 SQG Exception Reporting

TDOT facilities that are SQGs (generate greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month) must submit a legible copy of the manifest to the Commissioner if they do not have the signed copy of the manifest returned from the designated facility within 60 days of the date the waste was accepted by the original transporter but are otherwise exempt from other exception reporting requirements. Along with the manifest copy, the TDOT Operations Manager will provide an indication that they have not received confirmation of delivery of the shipment from the designated facility.

3.4 PRE-TRANSPORTATION REQUIREMENTS

3.4.1 Packaging

All hazardous waste must be packaged in accordance with the applicable DOT regulations in accordance with 49 *CFR* Parts 173, 178, and 179. All packages for shipment must conform to the requirements applicable to the hazard class and quantity of the hazardous waste being shipped. The TDOT Operations Manager shall ensure that all shipments of hazardous waste conform to the required packaging requirements.

3.4.2 Labeling

All hazardous waste shipped or offered for shipment must be labeled in accordance with the applicable DOT regulations under 49 *CFR* Part 172. The TDOT Operations Manager shall ensure that all hazardous waste packages are appropriately labeled prior to shipment.

3.4.3 Marking

All hazardous waste shipped or offered for shipment must be appropriately marked in accordance with the applicable DOT regulations for hazardous materials under 49 *CFR* Part 172. In addition, all hazardous waste containers of 110 gallons or less used in transporting hazardous waste must be labeled with the following:

“HAZARDOUS WASTE – Improper Disposal Prohibited by Law. If found, contact the nearest police or public safety authority, or the U.S. Environmental Protection Agency.”

The label must also include the generator name, address, and the manifest number associated with the waste shipment. The marking may be in the form of a label affixed to the container or marked directly on the container itself. The mark must be 1) durable, in English, and printed on or affixed to the surface of a package, tag, or sign; 2) displayed on a background of sharply contrasting color; 3) unobscured by labels or attachments; and 4) located away from any other marking that could substantially reduce its effectiveness. The TDOT Operations Manager shall ensure that all packages are appropriately marked prior to shipment of hazardous waste.

3.4.4 Placarding

All shipments of hazardous waste are subject to the placarding requirements under 49 *CFR* Part 172 (DOT regulations for hazardous materials). If the initial transporter does not provide the placards appropriate for the waste shipment the TDOT Operations Manager for the facility originating the shipment must provide the appropriate placards to the transporter. The TDOT Operations manager must ensure that no shipment of hazardous waste leaves the TDOT facility without the appropriate placarding.

3.5 DISPOSAL INFORMATION NECESSARY TO COMPLETE THE ANNUAL REPORT

Information relative to the shipment of hazardous waste to off-site facilities is required to be included in the RCRA annual generator report required by 40 *CFR* 262.40 and TN Rule 1200-1-11-.03(5)⁹. The Annual Report, as specified in the Hazardous Waste Core Accumulation Plan must be submitted to the Commissioner by March 1 of each calendar year and includes the following disposal information:

- The installation identification number of each off-site treatment, storage, or disposal facility to which hazardous waste was sent.
- The total quantity of hazardous waste sent to each off-site facility and the manner in which it was to be managed (e.g., stored, incinerated, neutralized, etc.).
- The installation identification number(s) of each transporter used during the reporting year.

The TDOT Operations Manager shall be responsible for ensuring that the required information relative to the disposal of hazardous wastes are submitted to the TDOT Environmental Coordinator by February 1 of each year.

4.0 LAND DISPOSAL RESTRICTION REQUIREMENTS

The requirements found under 40 *CFR* Part 268 and TN Rule 1200-1-11-.10¹⁰ identifies hazardous wastes that are restricted from land disposal that must comply with the LDRs. Restricted hazardous wastes must meet specific treatment standards prior to land disposal (e.g., landfilling, etc.). Treatment standards are applied in the form of specific concentrations for waste constituents or by specific treatment technologies. In addition, the LDRs include treatment standards for underlying constituents in certain hazardous wastes that must be met or determined not to apply, based upon testing or process knowledge. Determination of the applicability of the LDRs must be made on each hazardous waste stream generated at a TDOT facility.

Upon determination that a hazardous waste is restricted from land disposal and subject to the LDRs, a certification or notification statement must accompany the manifest (if shipped to an off-site facility) or be maintained as a record at the generating TDOT facility (if treated on site). Certification statements are required when it is determined that a waste meets the applicable concentration standards, or has been treated by the specified treatment technology identified within the LDRs. The certification statement must include the restricted waste and the treatment standards associated with the U.S. Environmental Protection Agency (EPA) waste code used to identify the waste. The certification statement must be signed by the TDOT Operations Manager and shall include the appropriate language specified within 40 *CFR* Part 268 and TN Rule 1200-1-11-.10¹¹ for the type of hazardous waste being disposed.

Notification statements are required for shipping restricted hazardous wastes that are determined to exceed the concentration standard(s) or not to have been treated by the specified technology under the LDRs. The notification statement must identify the restricted waste, treatment standards applicable to the waste, and those standards that are exceeded. In addition, the notification statement must include the appropriate language specified within 40 *CFR* Part 268 and TN Rule 1200-1-11-.10¹², be signed by the TDOT Operations Manager, and accompany the manifest for any off-site shipment of hazardous waste that is restricted from land disposal under the LDRs.

To ensure that the requirements of the LDRs are followed, the TDOT Environmental Coordinator shall assist the TDOT Operations Managers in determining the appropriate treatment standards for each restricted hazardous waste generated at TDOT facilities and the appropriate notification/certification statements necessary to accompany the manifest for off-site shipments, or to be maintained in facility files when wastes are treated on site.

5.0 ACCEPTANCE BY OFF-SITE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

As stated in section 3.0 of this plan, generators may not ship or offer to ship hazardous waste to facilities that do not have an installation identification number or meet certain conditions that allow the waste to be accepted by the off-site facility. In addition, off-site facilities that accept waste for recycle, treatment, storage, or disposal also have waste acceptance criteria imposed upon them through the facility's operating permit. In order to ship hazardous waste to these facilities, it is necessary to ensure that the hazardous waste shipped to the off-site facility meets the waste acceptance criteria. The TDOT Operations Manager with assistance from the TDOT Environmental Coordinator must coordinate with the designated off-site facility to ensure that the waste meets the applicable waste acceptance criteria. This determination may require additional characterization of the waste dependant upon the receiving facility's requirements. It is the responsibility of the TDOT Operations Manager to ensure that all acceptance criteria are met prior to shipment of the hazardous waste off-site.

6.0 ON-SITE TREATMENT OF HAZARDOUS WASTES

Treatment and/or disposal of hazardous wastes may occur on site at TDOT facilities under certain circumstances. With the exceptions listed below, treatment of hazardous waste may only be conducted if TDOT has been permitted by TDEC to conduct treatment or disposal operations as specified in 40 *CFR* Part 264 and TN Rule 1200-1-11-.06¹³. On-site treatment that does not require a permit includes the following:

- A totally enclosed treatment facility, which is directly connected to an industrial production process and that is constructed and operated in a manner that prevents the release of any hazardous waste or constituent into the environment during treatment.
- An elementary neutralization unit used to treat corrosive hazardous waste (i.e., hazardous wastes exhibiting $\text{pH} \leq 2.0$ or ≥ 12.5).
- The addition of adsorbent material in a container or, the addition of waste to adsorbent material in a container, provided that the waste the action occurs at the time the waste is first placed in the container(s).
- On-site wastewater treatment units that are permit-by-rule units granted under 40 *CFR* 270.1(c)(2) and TN Rule 1200-1-11-.07(1)(c)¹⁴.

To ensure that all on-site treatment activities are conducted in accordance with the applicable requirements the TDOT Environmental Coordinator must review and approve all on-site treatment operations prior to treatment. The respective TDOT Operations Managers will request approval for specific treatment operations from the TDOT Environmental Coordinator prior to conducting any on-site treatment of hazardous waste. On-site treatment of hazardous wastes may be conducted only in accumulation or satellite accumulation areas at TDOT facilities. Accumulation areas are less than 90-day areas for large quantity generators and less 110-day areas for SQGs.

7.0 UNIVERSAL WASTE DISPOSAL

7.1 SMALL QUANTITY HANDLERS

TDOT facilities that accumulate less than 5,000 kilograms of universal waste (i.e., batteries, mercury thermostats, pesticides, and mercury lamps as defined in the Hazardous Waste Characterization Core Plan) at any time, are considered small quantity handlers under 40 *CFR* Part 273 and TN Rule 1200-1-11-.12¹⁵. TDOT facilities that meet this criteria may not dispose of universal wastes and are prohibited from treatment or dilution of universal wastes except by responding to a release or when treating mercury lamps as further discussed in this section. Universal wastes may only be shipped to a destination facility for recycling, another universal waste handler for accumulation, or to a foreign destination. The TDOT Operations Manager is responsible for the following:

- Ensuring that the receiving facility has agreed to accept the waste prior to shipment.
- The shipment meets the applicable DOT shipping requirements for hazardous materials under 49 FR arts 171 through 180 including packaging, labeling, marking, placarding, and completion of the appropriate shipping papers (Note: A manifest is not required for such shipment).

7.2 LARGE QUANTITY UNIVERSAL WASTE HANDLERS

TDOT facilities that accumulate 5000 kilograms or more of universal waste (i.e., batteries, mercury thermostats, pesticides, and mercury lamps) at any time are considered large quantity handlers under 40 FR Part 273 and TN Rule 1200-1-11-.12¹⁶. Large Quantity Universal Waste Handlers are required to complete a notification form and receive an installation identification number from the State. TDOT facilities that meet this criteria may not dispose of universal wastes and are prohibited from treatment or dilution of universal wastes except by responding to a release or when treating mercury lamps as further discussed in this section. Universal wastes may only be shipped to a destination facility for recycling, another universal waste handler for accumulation, or to a foreign destination. The TDOT Operations Manager is responsible for the following:

- Ensuring that the receiving facility has agreed to accept the waste prior to shipment.
- The shipment meets the applicable DOT shipping requirements for hazardous materials under 49 CFR Parts 171 through 180 including packaging, labeling, marking, placarding, and completion of the appropriate shipping papers (note: a manifest is not required for such shipment).
- Maintaining a record for at least three years from the date of shipment of each off-site shipment (i.e., log, invoice, bill of lading, manifest, or other shipping document) that includes the name and address of the destination facility, the quantity of universal waste shipped, and the date the shipment left the generating facility.

7.3 ON-SITE TREATMENT OF UNIVERSAL WASTES

Mercury lamps may be size reduced on site at the facility where they are generated. Crushing of the lamps may be conducted only in a system designed and operated to minimize the loss of mercury to the atmosphere. Any exhausted air from the unit must pass through a high efficiency particulate air filter (HEPA) designed to minimize loss of mercury to the atmosphere. Records of the unit operation must be

maintained by the TDOT Operations Manager for three years and include the technology used for crushing and the certification or testing data provided by the manufacturer. In order to conduct such crushing operations, the area must be well ventilated to ensure compliance with applicable Occupational Safety and Health Administration (OSHA) exposure levels for mercury and all employees responsible for operation of the crusher unit must be thoroughly familiar with proper waste mercury handling and emergency procedures. Crushed lamps must be stored in closed, non-leaking containers that are in good condition and are suitable to prevent releases during storage, handling, and transportation.

Electrolytic solution may be removed from batteries by TDOT facilities that are universal waste handlers. However, after removal of the solution it must be tested in accordance with the generator requirements specified within the Core Characterization Plan and the requirements under 40 *CFR* 262.11 and TN Rule 1200-1-11-.02¹⁷. If it is determined that the electrolytic solution exhibits a hazardous waste characteristic it must be managed as a hazardous waste after removal.

8.0 USED OIL DISPOSAL

TDOT facilities generate used oil from facility and vehicle maintenance activities. Currently these operations are limited to on-site accumulation in tanks or containers at facilities where the used oil is generated. Generators of used oil that are not marketers are not required to notify TDEC or acquire an installation identification number unless they are marketing off-specification used oil as defined in the Hazardous Waste Characterization Core Plan, for burning for energy recovery. Marketers of used oil are individuals or facilities that direct shipments of off-specification used oil to a used oil burner or first claims that a used oil meets specifications as defined at 40 *CFR* 279.11 and TN Rule 1200-1-11-.11¹⁸. This plan outlines the requirements and responsibilities for TDOT facilities as used oil generators.

8.1 OFF-SITE DISPOSAL OF USED OIL

Used oil may be transported by TDOT Operations to off-site aggregation points for purposes of accumulation without notifying TDEC and acquiring an installation identification number provided that:

- The vehicle used to transport the used oil is owned by TDOT;
- No more than 55 gallons of used oil is transported off-site in any one shipment; and
- The aggregation point where the used oil is being shipped is owned by TDOT.

Used oil may also be transported off-site to approved collection centers without notification to TDEC and acquisition of an installation identification number provided that:

- The vehicle used to transport the used oil is owned by TDOT;
- No more than 55 gallons of used oil is transported off-site in any one shipment; and
- The collection center where the used oil is being shipped to is registered, licensed, permitted, or recognized by a state/county/municipal government to manage used oil.

TDOT facilities that generate used oil may also arrange for transporting used oil by a transporter without an installation identification number if the used oil is reclaimed under a contractual agreement where reclaimed oil is returned by the processor/re-refiner to the generator for use as a lubricant, cutting oil, or coolant. The contract (tolling agreement) must indicate the type of used oil and frequency of shipment, that the vehicle used to ship the used oil and reprocessed oil is owned by the used oil processor/re-refiner, and that the reclaimed oil will be returned to the TDOT.

If the limitations specified above are not met with regard to shipment, destination, or tolling arrangement, the TDOT Operations Manager must ensure that the transporter used to ship used oil has an installation identification number prior to shipment. Used oil may be shipped to off-site facilities for recycling including, re-refining, reclamation, or burning for energy recovery. If used oil is shipped off site to be burned for energy recovery, the TDOT Operations manager must determine whether the used oil is “off-specification” as defined at 40 *CFR* 279.11 and TN Rule 200-1-11-.11(2)¹⁹. Used oil that is off-specification (and burned for energy recovery) may only be shipped to facilities that will burn the used oil in an industrial furnace, boiler, industrial boiler, utility boiler, or hazardous waste incinerator that have notified the TDEC of the used-oil burning activities and have an installation identification number. The TDOT Environmental Coordinator shall provide support to the TDOT Operations Managers to identify approved used oil recycling or processing facilities to receive TDOT generated used oil.

8.2 ON-SITE DISPOSAL OF USED OIL

Used oil may be disposed of on site in used-oil fired space heaters. This activity may be conducted provided that the:

- The heater burns only used oil that is generated by TDOT operations;
- The heater is designed to have a maximum capacity of not more than 0.5 million BTU per hour; and
- The combustion gases from the heater are vented to ambient air.

Prior to initiation of burning of used oil in an on-site heater, the TDOT Operations Manager shall notify the TDOT Environmental Coordinator. Burning of used oil shall not be conducted at TDOT facilities unless approved by the TDOT Environmental Coordinator. Use of used oil by TDOT operations as a dust suppressant is prohibited.

¹ 40 *CFR* 261.5 and TN Rule 1200-1-11-.02(1)(e)—Standards and requirements applicable to conditionally exempt small quantify generators and methodology for generation status determination.

² TN Rule 1200-1-11-.07 or 40 *CFR* Part 270—Technical standards for permitting treatment, storage, and disposal units, including preparation of permit applications.

³ TN Rules 1200-1-11-.05 and 1200-1-11-.07 or 40 *CFR* Part 265—Technical standards and qualification requirements for interim status units. Applicable to units managing newly designated hazardous wastes.

⁴ TN Rule 1200-1-11-.07 or 40 *CFR* Part 270—Technical standards for permitting treatment, storage, and disposal units, including preparation of permit applications.

⁵ TN Rules 1200-1-11-.05 and 1200-1-11-.07 or 40 *CFR* Part 265—Technical standards and qualification requirements for interim status units. Applicable to units managing newly designated hazardous wastes.

⁶ TN Rule 1200-1-11:11 and 40 *CFR* Part 279—Standards for generators and marketers of used oil, including accumulation, storage, and disposition.

⁷ 40 *CFR* Part 260 and TN Rule 200-1-11-.01—Hazardous Waste Management System: General,. provides general standers, definition of terms, and overview information applicable to the hazardous waste management regulatory program.

⁸ 49 *CFR* 171 through 179—Federal transportation standards, including material classification, packaging, labeling, and shipping procedures.

⁹ 40 *CFR* 262.40 and TN Rule 1200-1-11-.03(5)—Annual reporting requirements for hazardous waste generators.

¹⁰ 40 *CFR* Part 268 and TN Rule 1200-1-11-.10—Treatment standards expressed in concentration or technology that a restricted hazardous waste must meet prior to land disposal. These rules also include generator notification and certification requirements for shipment of hazardous waste.

¹¹ 40 *CFR* Part 268 and TN Rule 1200-1-11-.10—Annual reporting requirements for hazardous waste generators.

¹² 40 *CFR* Part 268 and TN Rule 1200-1-11-.10—Annual reporting requirements for hazardous waste generators.

¹³ 40 *CFR* Part 264 and TN Rule 1200-1-11-.06—Technical standards for operation of permitted hazardous waste management units. Includes general and operation specific standards.

¹⁴ 40 *CFR* 270.1(c)(2) and TN Rule 1200-1-11-.07(1)(c)—Provides criteria for treatment units that are excluded from RCRA permitting requirements.

¹⁵ 40 *CFR* Part 273 and TN Rule 1200-1-11-.12—Standards for management of universal wastes, including lead acid batteries, thermostats, certain light bulbs and lamps, and pesticides.

¹⁶ 40 *FR* Part 273 and TN Rule 1200-1-11-.12—Standards for management of universal wastes, including lead acid batteries, thermostats, certain light bulbs and lamps, and pesticides.

¹⁷ 40 *CFR* Part 262 and TN Rule 1200-1-11-.02—Standards for characterization, notification, pre-shipment manifesting, and accumulation of hazardous waste by generators.

¹⁸ 40 *CFR* 279.11 and TN Rule 1200-1-11-.11(2)—Specification for used oil burned for energy recovery.

¹⁹ 40 *CFR* 279.11 and TN Rule 1200-1-11-.11(2)—Specification for used oil burned for energy recovery.