

US EPA ARCHIVE DOCUMENT

Session 3 Treatment, Storage, and Disposal Facilities (TSDFs) General Requirements of 40 CFR Part 264



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Session 3 Agenda: Treatment, Storage, and Disposal Facilities (TSDFs): General Requirements of 40 CFR Part 264

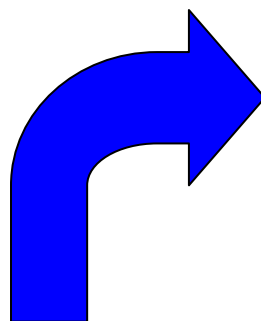
- ▶ Subpart A - General
- ▶ Subpart B - General Facility Standards
- ▶ Subpart C - Preparedness and Prevention
- ▶ Subpart D - Contingency Plan and Emergency Procedures
- ▶ Subpart E - Manifest System, Recordkeeping, and Reporting
- ▶ Upcoming Actions



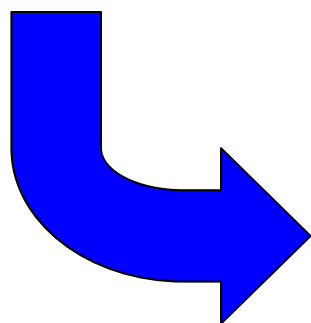
Hazardous Waste Lifecycle



Generator Site



TSDF



Transporter



Subpart A

Subpart A - General

- ▶ Purpose, scope, and applicability (§§264/265.1)
 - Establishes minimum standards for TSDFs
 - Exemptions from TSDF standards
- ▶ Refers interim status facilities to Part 265 (§264.3)
- ▶ Exemptions



Subpart A

Applicability

“The standards in this part apply to owners and operators of facilities which **treat, store, or dispose** of hazardous waste *except as specifically provided otherwise in this Part or Part 261...*” (emphasis added)

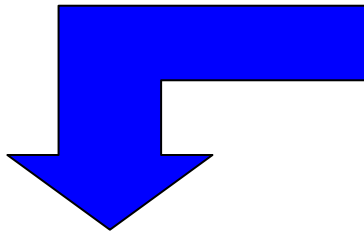


§§264/265.1(b)



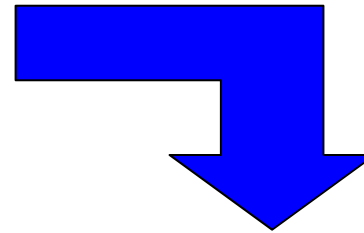
Subpart A

TSDF



Permitted Facility

- ▶ Built after date of regulations OR
- ▶ Finalized permit
- ▶ **Part 264**



Interim Status Facility

- ▶ In existence on date of regulation
- ▶ Has not finalized permit
- ▶ Newly regulated
- ▶ **Part 265**



Subpart A

Exemptions

- ▶ State authorization
- ▶ TETU/ENU/WWTU
- ▶ Exempt recyclers in §261.6
- ▶ Transfer exemption
- ▶ Generators accumulating according to §262.34
- ▶ Immediate response
- ▶ Absorbent material
- ▶ Farmer disposing of waste pesticides
- ▶ Universal Waste transporters/handlers



Subpart B

Subpart B - General Facility Standards

- ▶ EPA identification number
- ▶ Personnel training
- ▶ Required notices
- ▶ Special requirements for ignitable, corrosive, and incompatible wastes
- ▶ Waste analysis plan
- ▶ Security
- ▶ Location standards
- ▶ Inspections
- ▶ Construction quality assurance





Subpart B

Facility Information on the Site ID Form

- ▶ Site name and location information
- ▶ Site land type
- ▶ North American Industry Classification System (NAICS) code(s)
- ▶ Site contact person and mailing address
- ▶ Legal owner and operator
- ▶ Type of regulated waste activity
- ▶ Description of hazardous waste
- ▶ Certification statement

NAICS, developed jointly by the U.S., Canada, and Mexico to provide new comparability in statistics about business activity across North America, replaced the Standard Industrial Classification (SIC) system in 1997



Subpart B

Required Written Notices

- ▶ To import hazardous waste from foreign sources, notify the applicable EPA Region at least four weeks before the waste is expected to arrive at the TSDF
- ▶ Prior to receiving waste from off-site sources, the TSDF must inform the generator that they:
 - Have the appropriate permits
 - Will accept the waste the generator is shipping
- ▶ Prior to transferring ownership or operation, notify the new owner or operator of the permit requirements



Subpart B

Waste Analysis Plan

- ▶ Before the waste can be treated, stored, or disposed, a detailed chemical and physical analysis must be obtained
- ▶ TSDF must develop and follow a waste analysis plan that describes the following procedures:
 - Parameters for waste analysis and rationale for selection
 - Test methods used
 - Sampling method for representative sampling
 - Frequency of analysis
 - Any analysis supplied by waste generators
 - Other specifications depending on unit type or permit



Subpart B

Security

- ▶ The TSDF must install one of these security measures to control entry onto the active portion of the facility:
 - A 24-hour surveillance system (e.g., television monitoring, guards)
 - An artificial or natural barrier (e.g., fence) that surrounds the active portion of the facility
- ▶ The facility must post a sign reading: “Danger – Unauthorized Personnel Keep Out” at each entrance to the active portion of the facility in English and any other language that is predominant in the surrounding area



Subpart B

Inspection Requirements

- ▶ The owner and operator must visually inspect the facility for malfunction, deterioration, operator errors, and leaks
- ▶ Inspections should follow a written inspection schedule identifying the types of problems to be checked and how often inspections should be conducted
 - Areas where spills are more likely to occur (e.g., loading docks) must be inspected daily when in use
 - Unit-specific inspection requirements must be included in the schedule
- ▶ Inspections must be recorded in a log or summary



Subpart B

Personnel Training

- ▶ TSDF owners and operators must provide training to ensure that facility employees:
 - Understand the risks posed by management of hazardous waste
 - Are prepared to respond in the case of an emergency
- ▶ Training must be completed within **six months**:
 - From the date the facility is subject to TSDF standards, or
 - From the date a worker is newly employed
- ▶ Facility personnel must take part in an annual review of their initial training



Subpart B

Requirements for Ignitable, Reactive, or Incompatible Waste

- ▶ To avoid accidents, fires, or explosions, special care must be taken in handling ignitable, reactive, or incompatible wastes:
 - Ignitable and reactive wastes must be protected from ignition sources
 - “No Smoking” signs must be placed where such wastes are stored
 - Precautions must be taken to prevent the combined storage of wastes that might react with one another or with the unit in which they are stored



Subpart B

Location Standards

- ▶ RCRA imposes restrictions on where TSDFs can be built
 - These location standards include restrictions on siting TSDFs in floodplains or earthquake-sensitive areas
 - Existing facilities are not subject to these considerations because the facilities are already in operation
- ▶ TSDFs may not place noncontainerized or bulk liquid hazardous waste in a salt dome, salt bed formation, or underground mine or cave
 - Congress granted an exception to this rule to the DOE's Waste Isolation Pilot Project (WIPP) in New Mexico



Subpart B

Construction Quality Assurance

- ▶ A construction quality assurance (CQA) program must be implemented for landfills, waste piles, and surface impoundments
- ▶ The CQA program ensures that all design criteria are met during the construction of a unit
- ▶ A written CQA plan is required and the CQA officer (i.e., a registered PE) must certify that the unit meets all design criteria and permit specifications before the unit can receive waste



Subpart C

Subpart C - Preparedness and Prevention

- ▶ Design and operation of facility
- ▶ Required equipment
- ▶ Testing and maintenance of equipment
- ▶ Access to communications or alarm system
- ▶ Required aisle space
- ▶ Arrangement with local authorities



Subpart C

Design and Operation of Facility

- ▶ Facilities must be operated and maintained in a manner that minimizes the possibility of:
 - Fire
 - Explosion
 - Any unplanned sudden or non-sudden release of hazardous waste or hazardous constituents to air, soil, or surface water



Subpart C

Required Equipment

- ▶ TSDFs must have:
 - An internal communication or fire alarm system
 - A phone or radio capable of summoning emergency assistance
 - Fire fighting equipment
 - Adequate water supply



Subpart C

Additional Requirements

- ▶ This equipment must be maintained and tested regularly (§264.33)
- ▶ All personnel involved in the operation must have access to an alarm system or emergency communication device (§264.34)
- ▶ The facility must have aisle space that is sufficient to ensure easy movement of personnel and equipment, unless the owner/operator demonstrates that it is unnecessary (§264.35)



Subpart C

Arrangements with Local Authorities

- ▶ Facilities must have provisions for contacting local authorities who might be involved in emergency responses at the facility
 - Includes fire department, police, hospitals, and emergency response teams
 - The local authorities must be familiar with the facility and properties of the hazardous wastes handled there
 - Where more than one local authority is involved, a lead authority must be designated
- ▶ Any refusal by local authorities to enter into such arrangements must be documented in the operating record



Subpart D

Subpart D - Contingency Plan and Emergency Procedures

- ▶ Contingency Plan
- ▶ Copies of the plan
- ▶ Amendments to the plan
- ▶ Emergency coordinator
- ▶ Emergency procedures
- ▶ Post-emergency procedures



Subpart D

Contingency Plan

- ▶ The contingency plan describes emergency response arrangements with local authorities and lists the names, addresses, and phone numbers of all people qualified to act as emergency coordinator
 - The plan must include a list of all emergency equipment and evacuation plans, where applicable
 - If an emergency or contingency plan has already been prepared in accordance with other regulations (e.g., SPCC), it may be amended to incorporate hazardous waste management provisions



Subpart D

Copies of and Amendments to the Contingency Plan

- ▶ A copy of the contingency plan (and any revisions) must be maintained at the facility and provided to all local authorities that may respond to emergencies
- ▶ The contingency plan must be reviewed and amended when:
 - The applicable regulations or facility permits are revised
 - The plan fails in an emergency
 - There are changes to the facility, the list of emergency coordinators, or the list of emergency equipment



Subpart D

Emergency Coordinator

- ▶ The owner and operator must designate an emergency coordinator to guide emergency response activities
- ▶ The emergency coordinator is responsible for assessing emergency situations and making decisions on how to respond
- ▶ There must be at least one employee either on the facility premises or on call to fill this role
 - This person must have the authority to commit the resources needed to carry out the contingency plan



Subpart D

Emergency Procedures

- ▶ In the event of an imminent or actual emergency situation, the emergency coordinator must immediately:
 - Activate internal facility alarms or communication systems
 - Notify appropriate state and local authorities

- ▶ If the emergency threatens human health or the environment outside of the facility and evacuation of the local areas may be advisable, the coordinator must notify:
 - Appropriate authorities
 - Either the designated government official or the NRC



Subpart D

Post-Emergency Procedures

- ▶ After an emergency, any residue from the release, fire, or other event must be treated, stored, or disposed of according to RCRA
 - The facility may assume generator status for management of these residues
- ▶ The emergency coordinator must ensure that all emergency equipment is cleaned and fit for use before operation is resumed
- ▶ The owner or operator must document the events that required implementation of the contingency plan in the facility operating record



Subpart E

Subpart E - Manifest, Recordkeeping & Reporting

- ▶ Manifest system
- ▶ Rejected loads
- ▶ New manifest requirements
- ▶ Operating record
- ▶ Uniform Hazardous Waste Manifest
- ▶ Record availability
- ▶ Biennial report
- ▶ Manifest discrepancies
- ▶ RCRA Burden Reduction Initiative



Subpart E

Manifest System

- ▶ When an off-site waste shipment is received, the TSDF owner and operator must sign and date all copies of the manifest to verify that the waste has reached the appropriate designated facility
- ▶ The TSDF must keep a signed copy for its records and send a copy to the generator within 30 days to verify that the waste was accepted
- ▶ If the owner or operator of a TSDF sends the waste to an additional TSDF for further treatment or disposal, they must initiate a new manifest



Subpart E

New Manifest Requirements

- ▶ New manifest requirements were promulgated on March 4, 2005, and became effective September 6, 2005 (70 FR 10776)
- ▶ Significant changes to the manifest system include:
 - Standardized content and appearance of form and continuation sheet
 - Management of residues from non-empty containers
 - Adding regulations to instruct hazardous waste handlers on how to handle rejected loads



Subpart E

Uniform Hazardous Waste Manifest

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number		2. Page 1 of	3. Emergency Response Phone		4. Manifest Tracking Number				
GENERATOR		5. Generator's Name and Mailing Address									
		Generator's Site Address (if different than mailing address)									
TRANSPORTER		Generator's Phone:									
DESIGNATED FACILITY		6. Transporter 1 Company Name					U.S. EPA ID Number				
		7. Transporter 2 Company Name					U.S. EPA ID Number				
RECEIVING FACILITY		8. Designated Facility Name and Site Address					U.S. EPA ID Number				
		Facility's Phone:									
CONTAINER		9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
						No.	Type				
CONTAINER				1.							
CONTAINER				2.							
CONTAINER				3.							
CONTAINER				4.							
SPECIAL HANDLING		14. Special Handling Instructions and Additional Information									



Subpart E

Uniform Hazardous Waste Manifest (cont.)

TRANSPORTER INT'L	14. Special Handling Instructions and Additional Information			
	15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.			
	Generator's/Offor's Printed/Typed Name		Signature	
			Month Day Year	
	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____			
	Transporter signature (for exports only): _____ Date leaving U.S.: _____			
	17. Transporter Acknowledgment of Receipt of Materials			
	Transporter 1 Printed/Typed Name		Signature	
			Month Day Year	
	DESIGNATED FACILITY	Transporter 2 Printed/Typed Name		Signature
		Month Day Year		
18. Discrepancy				
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection				
Manifest Reference Number: _____				
18b. Alternate Facility (or Generator)		U.S. EPA ID Number		
Facility's Phone: _____				
18c. Signature of Alternate Facility (or Generator)		Month Day Year		
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)				
1. _____		2. _____		
3. _____		4. _____		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a				
Printed/Typed Name		Signature		
		Month Day Year		

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)



Subpart E

Manifest Discrepancies

- ▶ Manifest discrepancies include significant differences between the quantity or type of hazardous waste that a facility actually receives
- ▶ Significant differences are any discrepancies in:
 - Weight (for bulk shipments, over 10 percent)
 - Piece count (for batch or containerized shipments, one container per truckload)
 - Waste type
- ▶ Significant differences in quantity or type must be reconciled with the generator or transporter



Subpart E

Rejected Loads

- ▶ A rejected load can occur when a TSDF receives a shipment of:
 - hazardous waste that they cannot accept, either because of restrictions in the permit or capacity limitations; or
 - containers that are not empty according to the definition of empty container in 40 CFR §261.7.
- ▶ Fields have been added to the manifest in the Discrepancy box to track this information
 - A block has been added to capture alternate facility information and signature
 - A new manifest is only required if a facility rejects a partial load or container residue shipment, or after the transporter attempting delivery has left the premises



Subpart E

Operating Record

- ▶ Until closure, the owner or operator is required to keep a written operating record on site describing:
 - All waste received
 - Methods and dates of treatment, storage, and disposal
 - The wastes' location within the facility
- ▶ All information should be cross-referenced with the manifest number



Subpart E

Operating Record (cont.)

- ▶ Other information that the TSDF must keep in the operating record:
 - Waste analysis results
 - Details of emergencies requiring contingency plan implementation
 - Inspection results (for three years)
 - Groundwater monitoring data
 - Land treatment and incineration monitoring data
 - Closure and post-closure cost estimates



Subpart E

Record Availability

- ▶ All records and plans must be available for inspection
- ▶ Required record retention periods are automatically extended during enforcement actions or as requested by the implementing agency
- ▶ When a facility certifies closure, a copy of records documenting waste disposal locations and quantities must be submitted to the implementing agency and to the local land authority



Subpart E

Biennial Report

- ▶ To track hazardous waste activity nationwide, RCRA requires TSDFs to report to EPA the types and amounts of hazardous waste generated, received, treated, stored, and disposed
- ▶ Reports are due to the EPA Regional Administrator on March 1 of each even-numbered year, and must detail the waste managed during the previous (odd-numbered) year
 - Waste managed during 2007 will be detailed in the Biennial Report due March 1, 2008
 - Some states may require annual submission of reports



Subpart E

RCRA Burden Reduction Initiative

- ▶ Burden Reduction Rule (71 FR 16861; April 4, 2006)
 - In accordance with the goals of the Paperwork Reduction Act, EPA promulgated changes to the regulatory requirements of RCRA to reduce the paperwork burden these requirements impose on the states, EPA, and the regulated community
 - This rule streamlines the information collection requirements, ensuring that only the information that is actually needed and used to implement the RCRA program is collected



Upcoming Actions

Upcoming Actions

- ▶ Management of cement kiln dust (CKD)
 - NODA 4/07
 - Final 3/08
- ▶ Rags and wipes modifications
 - NODA 2/07
 - Final 6/08
- ▶ Definition of solid waste revisions



Upcoming Actions

Upcoming Actions

- ▶ Expansion of comparable fuels exclusion
 - NPRM 6/07
- ▶ Criteria for granular mine tailings
 - Final 6/07
- ▶ Electronic hazardous waste manifest
 - Final 4/08
- ▶ Streamlining laboratory waste management
 - Final TBD

