Eight Ways to Treat Hazardous Waste Without a RCRA Permit

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Schedule
Resource Conservation and Recovery Act (RCRA)

Treatment Definition

Definition has two parts

“[First part:] [A]ny method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste [Second part:] so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous, or less hazardous; safer to transport, store, or dispose of; amenable for recovery, amenable for storage, or reduced in volume.”

See §260.10

Treatment Examples

Neutralization of a corrosive waste
Stabilization of a metal bearing sludge
Incineration of an ignitable waste
Recycling a spent solvent
Fuel blending to meet a specification
Evaporation of water from a hazardous waste
Decanting an aqueous phase from an ignitable waste
Mixing absorbents with hazardous wastes

Treatment Usually Requires a Permit

Generally speaking, treatment of a hazardous waste requires a RCRA permit
EPA gives us eight ways to treat hazardous waste without having to get a RCRA permit
Not all states recognize all eight permitting exemptions, so check with your state

Exemptions From Treatment Permitting Requirement

Elementary neutralization unit
Totally enclosed treatment facility
Adding absorbents to wastes
Immediate response
Wastewater treatment unit
Treating wastes in 90-day accumulation tanks/containers/containment buildings
Recycling processes
Burning small quantities of waste in onsite units
Elementary Neutralization Unit

- Waste code restrictions (D002 only)
- Unit must be a tank, tank system, container, transport vehicle, or vessel
- The ENU does not need to be directly connected
- The ENU does not need a CWA-discharge
- Don’t forget to satisfy the LDR paperwork requirement of §268.7(a)(7) or §268.9(d)

See §§264.1(g)(6), 265.1(c)(10), 270.1(c)(2)(iv)

Totally Enclosed Treatment Facility

- Must be directly connected to an industrial production process
- There can be no release of hazardous waste or constituents during treatment
- No waste code restrictions

See §§264.1(g)(5), 265.1(c)(8), 270.1(c)(2)(iv)

Adding Absorbents to Wastes

- For containers of hazardous waste (no tanks)
- Add absorbent “at time waste is placed in container”
- Order does not matter, but timing does
- No waste code restrictions

See §§264.1(g)(10), 265.1(c)(13), 270.1(c)(2)(vii)

Immediate Responses

- Actions taken in response to spills, discharges, and other situations that pose an immediate hazard are exempt from RCRA permitting and substantive management standards
- Can include transportation of wastes
- Time frame and extent of exemption are judged on an individual basis
- No waste code restrictions

See §§264.1(g)(8), 265.1(c)(11), 270.1(c)(3)
Wastewater Treatment Unit Exemption

- Three-part definition
  - Has a CWA-discharge,
  - Managing hazardous wastewater or wastewater treatment sludge, and
  - Is a tank
- Equipment, not wastes, exempt from RCRA standards
- No waste code restrictions
- Exemption not available for containers or surface impoundments

The Wastewater Treatment Unit Exemption

- Exemption applies only to the treatment activity itself
- Tanks, containers, and containment buildings are fully regulated units
  - Accumulation time
  - Labeling
  - Inspections
  - Subparts AA, BB, and CC
Treating Wastes in 90-Day Accumulation Units (continued)

- No waste code restrictions
- No thermal treatment
- Not clearly spelled out in regulations, so some states do not recognize this exemption

Examples of Treatment in 90-Day Accumulation Units

- Air or steam stripping contaminated ground water
- Blending hazardous waste fuels in tanks and/or containers
- Chemical flocculation of hazardous aircraft engine washwater
- Electrochemical oxidation of organic hazardous wastes
- Precipitation of heavy metals from solutions and oxidation/reduction reactions
- Ex situ treatment of hazardous soil

Recycling Processes

- Recycling process is exempt except for:
  - Emissions from process vents at TSD facilities
  - Emissions from equipment leaks at TSD facilities
- Permit-exempt recycling cannot involve:
  - Land disposal
  - Burning for energy/material recovery
  - Incineration
- Activities upstream of recycling can be fully regulated
- No waste code restrictions

Example of Exempt Recycling Activity

- The recycling activity is exempt, but anything upstream of the recycling activity can be fully regulated.

Burning Small Quantities of Waste in Onsite Units

- Exemption from RCRA permitting and Part 266, Subpart H (BIF) standards
- Conditions to claim permit exemption:
  - Waste must be burned at the site of generation
  - Limits on quantity burned
  - Fuel specifications must be met
  - Accumulation before burning is subject to RCRA
  - Notification and recordkeeping requirements
  - Waste code restrictions (no dioxin wastes)

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