



Introduction to Industrial and Hazardous Waste Recycling

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Overview

- Introduction to Recycling
- Types of Recyclable Wastes
- Exclusions from the Definition of Solid Waste
- Notification Process
- Frequently Asked Questions (FAQs)

What is Recycling?

- Recycling is the process of converting waste into a reusable material
- A material can be recycled if it can be:
 - Used
 - Reused
 - Reclaimed

Recycling Regulations

- 40 Code of Federal Regulations (CFR) Rule 261.2 – 261.6
- 30 Texas Administrative Code (TAC) Chapter 335, Subchapter A
- Regulatory Guidance RG – 240: *Can I Recycle Some of My Industrial or Hazardous Wastes?*

Legitimate Recycling

- Must be a known market or disposition for material
- Must meet requirements and be beneficial for its intended use
- Must meet terms of any exclusion or exemption
- Must have the necessary equipment for any on-site recycling activities

Types of Recyclable Waste



Types of Waste

- Solid Waste
- Industrial Solid Waste
 - Hazardous Waste
 - Non-Hazardous waste

Types of Recyclable Wastes

- Nonhazardous Industrial Waste (NHIW) – **Nonhazardous Recyclable Materials**
- Hazardous Waste (HW) – **Recyclable Materials**
- Hazardous Secondary Materials (HSM) – **Trade Fair Presentation – Today 2:30 PM**

Recycling Requirements



Recycling Requirements

NHIW

- Must comply with the general prohibitions
- Must comply with the notification requirements
- May be subjected to more strict requirements

HW

- Must comply with the general prohibitions
- Must comply with the notification requirements
- Must comply with recordkeeping, reporting, and shipping requirements

HW Recycling Requirements (Cont.)

- Generators Requirements - 30 TAC Chapter 335, Subchapter C
- Transporters Requirements – 30 TAC Chapter 335, Subchapter D
- Recycling Facilities
 - Storage prior to recycling - **Permit is required**
 - No storage prior to recycling – **Shipping, Recordkeeping, Biennial reporting requirements**

Exclusions from Solid Waste



Exclusions from Solid Waste

- Used or reused as ingredients in an industrial process to make a product
- Used or reused as effective substitutes for commercial products
- Returned to the original process from which they are generated

When is my Material a Solid Waste

- Materials used in a manner constituting disposal
- Materials used to produce products that are applied to the land
- Materials burned for energy recovery, used to produce a fuel, or contained in fuels

When is my Material a Solid Waste

- Certain reclaimed material
- Materials accumulated speculatively
- Inherently Waste-Like Materials



When is my Material a Solid Waste

Type of Material	Use Constituting Disposal	Energy Recovery	Reclamation	Speculative Accumulation
Spent materials (listed hazardous)	*	*	*	*
Spent materials (nonhazardous)	*	*	*	*
Sludges (listed hazardous)	*	*	*	*
Sludges (not listed but characteristically hazardous)	*	*		*
Sludges (nonhazardous)	*	*		*
By-Products (listed hazardous)	*	*	*	*



When is my Material a Solid Waste

Type of Material	Use Constituting Disposal	Energy Recovery	Reclamation	Speculative Accumulation
By Products (non listed but characteristically hazardous)	*	*		*
By-products (nonhazardous)	*	*		*
Commercial chemical products	*	*		
Scrap metal that is not excluded	*	*	*	*
Scrap metal other than excluded scrap metal	*	*	*	*

How to Avoid Speculative Accumulation

- Material must be potentially recyclable
- Must have feasible means of recycling
- Must recycle or transfer 75% of annual production of the recycling material
- Must have a label with the date material began to be accumulated

Land Application of NHIW

- Must meet the criteria of 30 TAC 335.1(160)(H)



Notification Process



Notification Requirements

- Must notify the TCEQ 90 days before recycling begins
- Applies for both hazardous and nonhazardous waste
- Applies for both on and off-site waste

Notification Requirements

- Type of Waste
- Method of Storage
- Nature of the recycling activity



Notification Requirements

How to Notify us:

- Generator Form 0525 and Receiver Form 0524
- TCEQ STEERS
- HSM – EPA Form 8700-12

Recycling Notifications Forms



GENERATOR NOTIFICATION FORM FOR RECYCLING HAZARDOUS OR INDUSTRIAL WASTE

Use this form to comply with requirements found in [30 TAC 335.6](#) to notify the TCEQ of hazardous or industrial solid waste stream recycling activities by your facility. This form is not appropriate for notification of wastes which you receive and recycle. Receivers should use [Form TCEQ-0524](#).

Solid Waste Registration #: _____ COMPANY NAME: _____

1. Enter the recycled material's Texas Waste Code (TWC). If the material is not shown in your Notice of Registration (NOR), please add the waste code to your NOR. Large Quantity Generators must use the State of Texas Electronic Reporting System ([STEERS](#)) to add TWCs; Small Quantity Generators may use STEERS or submit [Form TCEQ 00002](#).

TEXAS WASTE CODE: _____

2. Enter the Unit Sequence Number to reflect the on-site storage of the material to be recycled. If the storage unit is not on your facility's NOR, update the NOR by using either STEERS or by submitting Form TCEQ-00002. If no storage occurs, skip to 3.

UNIT SEQUENCE NUMBER _____

3. Describe the recycling process:

A. Will the material be recycled: ☐ On-site ? ☐ Off-site?

B. List on-site units(s) where waste is recycled: _____, _____, _____

C. Describe the recycling method:

- | | | |
|--|--|--|
| <input type="checkbox"/> Solvent Recovery | <input type="checkbox"/> Feedstock/Ingredient* | <input type="checkbox"/> Asphalt Batching |
| <input type="checkbox"/> Metals Recovery | <input type="checkbox"/> Compost* | <input type="checkbox"/> Alternate Daily Cover |
| <input type="checkbox"/> Oil Recovery* | <input type="checkbox"/> Smelting | <input type="checkbox"/> Soil Amendment* |
| <input type="checkbox"/> Energy Recovery* | <input type="checkbox"/> Fuel Blending* | <input type="checkbox"/> Fertilizer* |
| <input type="checkbox"/> Catalyst Recovery | <input type="checkbox"/> Other* | <input type="checkbox"/> Container Reconditioning* |
| <input type="checkbox"/> Acid Regeneration | <input type="checkbox"/> Road Base* | |

D. *Please provide detailed information to show that the recycling method complies with RCRA or industrial solid waste requirements in 30 TAC Chapter 335 (such as providing the BTU value of recycled material, if the recycling method is fuel blending or energy recovery). Required for oil recovery, energy recovery, fuel blending, container reconditioning, feedstock/ingredient, compost, road base, soil amendment, fertilizer and other.



RECEIVER NOTIFICATION FORM FOR RECYCLING HAZARDOUS OR INDUSTRIAL WASTE

Use this form to comply with requirements found in [30 TAC 335.6](#) to notify the TCEQ of hazardous or industrial solid waste recycling activities by your facility. This form is not appropriate for notification of wastes which you generate. Generators should use [Form TCEQ-0525](#).

Solid Waste Registration #: _____ Industrial or Hazardous Waste Permit #: _____

TEXAS WASTE CODE #: _____ COMPANY NAME: _____

CONTACT PERSON: _____ TELEPHONE NUMBER: _____

Skip to 1 if a SWR, or Permit # has been assigned to your facility.

PHYSICAL ADDRESS: _____
_____ TX _____

MAILING ADDRESS: _____
_____ TX _____

1. Describe the type of material to be recycled:

2. Describe any storage of the material prior to recycling. If no storage occurs, write "N/A":

3. A. Describe how the material will be recycled:

B. What purpose/function the material serves in the recycling activity:

Storage of material prior to recycling may require a permit as described in Title 30 Texas Administrative Code (TAC) Section [\(335.2\)](#). For more information on permitting requirements you may contact the Industrial and Hazardous Waste Permits Section at (512) 239-2335.



Frequently Asked Questions

FAQs



FAQ #1

Can industrial solid waste be mixed with household waste for recycling?

Answer: No, industrial solid waste should not be mixed with household waste for recycling.

FAQ #2

Do I need a permit to recycle industrial hazardous waste in Texas?

Answer: A permit is required for facilities that store hazardous waste received from off-site for recycling, unless the materials are put into a permit exempt recycling process on the same calendar day the materials are received. Units used for recycling do not require a permit.

FAQ #3

I am using a material as an ingredient in an industrial process to make a product. Is this material excluded from the solid waste?

Answer: Yes, if the material is not being reclaimed before being used.

References

- 40 Code of Federal Regulations (CFR) Part 261
- 30 Texas Administrative Code (TAC) Chapter 335
- TCEQ Guidance Document RG-240

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Questions?



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