



Can I Recycle Some of My Industrial or Hazardous Wastes?

The purpose of this document is to assist those who recycle nonhazardous industrial waste, hazardous waste, or hazardous secondary material and those who are thinking about doing so. A glossary of terms used in this document is available, beginning on page 10.

Requirements for Specific Recycling Activities

If you decide to recycle an industrial or hazardous waste, you should carefully review the following rules for the requirements that apply to your recycling activity:

- [30 TAC Section 335.1\(40\)](#) (Definition of Contained)
- [30 TAC Section 335.1\(79\)](#) (Definition of Hazardous Secondary Materials)
- [30 TAC Section 335.1 \(80\)](#) (Definition of Hazardous Secondary Materials Generator)
- [30 TAC Section 335.1\(160\)](#) (Definition of Solid Waste)
- [30 TAC Section 335.6](#) (Notification)
- [30 TAC Section 335.17](#) (Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials)
- [30 TAC Section 335.24](#) (Requirements for Recyclable Materials and Nonhazardous Recyclable Materials)
- [30 TAC Section 335.26](#) (Notification Requirement for Hazardous Secondary Materials)
- [30 TAC Section 335.27](#) (Legitimate Recycling of Hazardous Secondary Materials)
- [30 TAC 335, Subchapter H](#) (Standards for the Management of Specific Wastes and Specific Types of Facilities)
- [30 TAC Chapter 335, Subchapter V](#) (Standards for Reclamation of Hazardous Secondary Materials)
- [40 CFR Section 261.2](#) (Definition of Solid Waste)
- [40 CFR Section 261.4](#) (Exclusions)
- [40 CFR Section 261.6](#) (Requirements for Recyclable Materials)
- [40 CFR Section 266](#) (Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities)

Legitimate Recycling

Recycling industrial waste, hazardous waste, and hazardous secondary material (40 CFR Section [260.43](#) and 30 TAC Section [335.27](#)) must be legitimate.

A person engaged in legitimate recycling must document and demonstrate:

- that the recycling is legitimate and beneficial,
- that there is a known market or disposition for the material,
- that they meet the terms of any exclusion or exemption, and
- that they have the necessary equipment for any on-site recycling activities [30 TAC Sections [335.1\(160\)\(I\)](#), [335.24](#), and [335.27](#)].

Recycling Nonhazardous Industrial Waste

Generally, recycling nonhazardous industrial waste is subject to significantly less regulation than recycling hazardous waste from industrial or nonindustrial sources. *Nonhazardous* industrial waste recycling must comply with the general prohibitions of 30 TAC Section [335.4](#) and the notification requirements of 30 TAC Section [335.6](#). The specific regulations for recycling nonhazardous industrial waste can be found in 30 TAC Section [335.24\(h\)](#).

Certain *nonhazardous* industrial wastes can be directly applied to land for uses like road base or as ingredients in cement or concrete. Certain material that would be classified as nonhazardous industrial waste if discarded is not considered solid waste when the material meets the criteria under 30 TAC Section [335.1\(160\)\(H\)](#).

Nonhazardous industrial waste that is legitimately recycled by land application, is generally *not* subject to the deed recordation requirements of 30 TAC Section [335.5](#).

Inherently Waste-Like Materials

Certain wastes are designated by the EPA as inherently waste-like. That means that there are very few, if any, ways that such wastes can be legitimately recycled, and that they are always considered to be wastes that are subject to stringent regulations on how they can be managed. Inherently waste-like materials can be identified by their EPA hazardous waste numbers. Those numbers are F020, F022, F023, F026, F028, and in some cases F021.

Notification Requirements

Generators of industrial waste or hazardous waste that will be recycled must notify TCEQ 90 days before they begin recycling their waste. This is true whether the waste is recycled on- or off-site. Notification is made by completing and submitting form [TCEQ-0525](#), “Generator Notification Form for Recycling Hazardous or Industrial Waste,” by email to ihwper@tceq.texas.gov or by using the [STEERS](#) reporting system.

Facilities that receive and recycle industrial waste or hazardous waste must notify TCEQ 90 days before their recycling operation starts. Notification is made by completing and submitting form [TCEQ-0524](#), or “Receiver Notification Form For Recycling Hazardous or Industrial Waste,” by email to ihwper@tceq.texas.gov or by using the [STEERS](#) reporting system. It is necessary to renotify TCEQ if there are substantial changes in the composition of the wastes being recycled, the method of recycling, or the end-products resulting from recycling activities. This requirement applies to hazardous waste generators, industrial waste generators, and facility operators that recycle industrial or hazardous wastes.

If recycling activities generate hazardous secondary materials, review the notification requirements under the [Hazardous Secondary Materials](#) section of this document.

Where to Find Notification Forms

Notification forms TCEQ-0524 and TCEQ-0525 are available for download from the TCEQ website on the [Search for Forms and Instructions webpage](#).

Permit Requirements

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 [30 TAC Sections [335.2\(a\)](#) and [335.24\(e\)](#)].

No permit is required for the legitimate recycling of nonhazardous industrial waste in compliance with 30 TAC Section [335.24\(h\)](#).

Generators, receivers, and recyclers are not required to notify TCEQ if the materials that will be recycled are “nonwastes.” Nonwastes are materials that have not been discarded or are subject to an exclusion or exemption from being classified as a solid waste except for Hazardous Secondary Materials; see the section on [Hazardous Secondary Materials](#) in this document. Materials that are not classified as solid waste are subject to the general prohibitions under Texas Water Code Section [26.121](#) and 30 TAC Section [335.4](#).

Materials May or May not be Waste When They are Recycled

The table on pages 4 through 7 summarizes the regulations that apply to recycling industrial and hazardous waste. However, this table is only intended as guidance and does not replace the recycling rules. Both the generator and recycler are responsible for properly determining whether a material is a waste. Therefore, it is important for all parties to ensure that the recycling material is being properly handled by the generator, recycler, and end user.

To Use the Table

1. Look in the column under “My Material Is...” to identify which material is to be recycled.
2. Read across to the column under “Which means that it is a waste if it...” to determine under what conditions the material will be considered a waste.
3. Read across to the column under “However, it is not a waste if it...” to see whether there are any circumstances under which the material would be a nonwaste.

For example, suppose that you have a material that is recycled by burning to recover energy. Looking in the column under “My Material Is ...,” we find the word “Burned.” Looking across to the right we find the column headed “Which means that it is a waste if it ...,” where we find that the material is regulated as a waste. However, if we read further to the right under the column “However, it is not a waste if it ...,” we see that the material is not regulated as a waste if it meets one of the conditions listed there.

Limitations of the Table

The table does not include rarely encountered exemptions, for example, the exemption for byproduct material, source material, or special nuclear material as defined in 30 TAC Section [336.2](#).

TCEQ periodically updates 30 TAC [Chapter 335](#) to incorporate the latest additions and changes in the state and federal recycling rules. It also periodically updates this guidance document to reflect those additions and changes.

Because the recycling rules are subject to change, you are advised to check the applicable rules for the latest updates to the exemptions in the table.

Table: Is My Material a Waste When it is Recycled?

My material is ...	Which means that it is a waste if it...	However, it is not waste if it is this, or is not a waste under a Hazardous Secondary Material exclusion...
Applied to the land	Is used to make a product that is applied to or placed on the land (the resulting product is also considered a waste)	Is either a commercial chemical product whose normal and intended use is to be applied to or placed on the land or if the material meets the criteria of Section 335.1(160)(H)
	Is applied to or placed on the land in a manner that constitutes disposal	
Burned	Is burned to recover energy	Is a fuel identified as a commercial chemical product whose normal and recognized use is as a fuel (for example, gasoline), or if it meets criteria for being a fuel/cutter stock.
	Is used to produce a fuel (the resulting fuel is also regulated as a waste)	
	Is contained in a fuel (the resulting fuel is also regulated as a waste)	

My material is ...	Which means that it is a waste if it...	However, it is not waste if it is this, or is not a waste under a Hazardous Secondary Material exclusion...
Reclaimed (Processed to recover a usable product, or regenerated)	Is a spent material (a material that has been used, and as a result of contamination, can no longer serve the purpose for which it was intended)	Is a pulping liquor reclaimed in a pulping liquor recovery furnace and then reused in the pulping process (unless accumulated speculatively), or it is a wood-preserving solution reclaimed and reused for its original intended purpose, or it is a wood-preserving wastewater that has been reclaimed and is reused to treat wood
	Is a “sludge” (which means a liquid, solid, or semi-solid) from either a wastewater treatment plant (other than an effluent) or an air pollution control device	Is a “sludge” which is not a listed hazardous waste and it is reclaimed, or if it is a residue from the treatment of K061 listed waste and meets specific requirements set forth in 40 CFR Section 261.4(a)(11)
	Is a “by-product”	Is a “by-product” that is not a listed hazardous waste
	Is a scrap metal/printed circuit board	Is either a scrap metal excluded under 30 TAC Section 335.17(a)(9) or a printed circuit board excluded under 40 CFR 261.4(a)(14)
	Is used or reused as an ingredient in an industrial process to make a product	Is a commercial chemical product
	Is then returned to the original process which generated it	Is an activity that meets the requirements for tanks, enclosure, combustion, speculative accumulation, and product usage found in 40 CFR Section 261.4(a)(8)
Accumulated speculatively	Is not a commercial chemical product	A commercial chemical product
An inherently waste-like material	Is a listed hazardous waste F020, F022, F023, F026, or F028	No exceptions exist
	Is a listed hazardous waste F021	Is used as an ingredient to make a product at the site at which it was generated [see 40 CFR Section 261.2(d)(1)]
A halogenated material	Is a secondary material fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or is listed as a hazardous waste.	Is a brominated material that meets the criteria found in 40 CFR Section 261.2(d)(2)
Used as an ingredient in an industrial process to make a product	Is reclaimed; used in a manner constituting disposal; used to produce products applied to the land; burned for energy recovery; used to produce a fuel; contained in fuels; accumulated speculatively; or inherently waste-like	Meets the terms of the exemptions found in 30 TAC Section 335.1(160)(F)(i) , one of which is that the material not be reclaimed before being used

My material is ...	Which means that it is a waste if it...	However, it is not waste if it is this, or is not a waste under a Hazardous Secondary Material exclusion...
Used as an effective substitute for a commercial chemical product	Is reclaimed, used in a manner constituting disposal, used to produce products applied to the land, burned for energy recovery, used to produce a fuel, contained in fuels, accumulated speculatively, or inherently waste-like	Meets the terms of the exemptions found in 30 TAC Section 335.1(160)(F)(i) and (ii)
A raw material feedstock used in the original process that generated it without being reclaimed	Is reclaimed, used in a manner constituting disposal, used to produce products applied to the land, burned for energy recovery, used to produce a fuel, contained in fuels, accumulated speculatively, or is inherently waste-like	Is in compliance with 30 TAC Section 335.1(160)(F)(iii)
A secondary material reclaimed and returned to the original production process in which it was generated and reused in that process	Is used in a manner constituting disposal, used to produce products applied to the land, burned for energy recovery, used to produce a fuel, contained in fuels, accumulated speculatively, or is inherently waste-like	Is in compliance with 30 TAC Section 335.1(160)(F)(iv)
A coking by-product waste such as those with EPA hazardous waste numbers K060, K087, K141 ^B , K145, and K147 ^B , K148	Is not in compliance with the exclusion under 40 CFR Section 261.4(a)(10) a as adopted under 30 TAC Section 335.504 .	Is in compliance with 40 CFR Section 261.4(a)(10)
A spent sulfuric acid used to produce virgin sulfuric acid	Is accumulated speculatively as defined in 30 TAC Section 335.17(a)(8) .	Is not accumulated speculatively and is used to make virgin sulfuric acid
A used nonwastewater splash condenser dross from the treatment of K061 listed waste in a high temperature metal recovery unit	Is not in compliance with the terms of 40 CFR Section 261.4(a)(11)	Is in compliance with the terms of 40 CFR Section 261.4(a)(11)
A nonwastewater splash condenser dross from the treatment of K061 listed hazardous waste in high temperature metal recovery unit	Is not in compliance with 40 CFR Section 261.4(a)(11)	Is in compliance with 40 CFR Section 261.4(a)(11)
An oil-bearing hazardous secondary material,	Is not in compliance with 40 CFR Section 261.4(a)(12) , Section	Is in compliance with 40 CFR Section 261.4(a)(12) , Section 261.4(a)(18) , or Section 261.4(a)(19) respectively.

My material is ...	Which means that it is a waste if it...	However, it is not waste if it is this, or is not a waste under a Hazardous Secondary Material exclusion...
a petrochemical recovered oil, or a spent caustic solution from a petrochemical refining operation	261.4(a)(18) , or Section 261.4(a)(19) respectively	

Hazardous Secondary Material

This section provides general information regarding hazardous secondary material (HSM) that is legitimately reclaimed under the control of the generator and under the transfer based exclusion and provides generally applicable HSM requirements. Please refer to the regulations for the detailed requirements.

Hazardous Secondary Material Legitimately Reclaimed Under the Control of the Generator

If HSM is legitimately reclaimed (processed to recover a usable product or regenerated) and is under the control of the generator in compliance with 40 CFR Section [261.4\(a\)\(23\)](#), it is not solid waste under 30 TAC Section [335.1\(160\)\(A\)\(iv\)](#) and so is not regulated as solid waste. (Note: 40 CFR Section [261.4](#) is adopted by reference under 30 TAC Section [335.504](#)).

HSM may be considered “reclaimed under the control of the generator” under any of the following conditions:

- Reclaimed at the facility where it is generated.
- Reclaimed at an off-site facility that is under the control of the generator. To be under the control of the generator:
 - the facility must meet 40 CFR Section [261.4\(a\)\(23\)\(i\)\(B\)](#),
 - the generator must complete a certification under 40 CFR Section [261.4\(a\)\(23\)\(i\)\(B\)](#), and
 - the generator and the receiving facility must maintain records of HSM sent or received containing the name of the transporter, date of shipment and type and quantity of HSM shipped or received, or reclaimed.
- Reclaimed at an off-site facility operated by a tolling contractor. This means:
 - the tolling contractor must meet 40 CFR Section [261.4\(a\)\(23\)\(i\)\(C\)](#),
 - the hazardous secondary material must be generated pursuant to a contract between a tolling contractor and a toll manufacturer,
 - the tolling contractor must complete the certification under 40 CFR Section [261.4\(a\)\(23\)\(i\)\(C\)](#), and

- the tolling contractor must maintain records of HSM received and shipped containing the name of the transporter, date of shipment, and type and quantity of HSM shipped and received.

Hazardous Secondary Material Legitimately Reclaimed Under the Transfer Based Exclusion

HSM that is transferred to another person and legitimately reclaimed in compliance with the transfer based exclusion is not solid waste under 40 CFR Section [261.4\(a\)\(24\)](#).

The HSM generator must comply with, document, and certify compliance with the following HSM requirements.

- The HSM generator has reviewed the reclamation or intermediate facility and certified it complies with the HSM requirements. The requirements include the generator considering knowledge of the physical and chemical properties of the HSM, using publicly available information about any reclamation facility or intermediate facility, and certifying that the facility complies with all HSM requirements such as:
 - notification;
 - legitimate recycling;
 - financial assurance condition;
 - whether the facility has the equipment and trained personnel to safely recycle the HSM;
 - whether the facility has the permits required (if any), or evidence indicates that the facility will correctly manage any residuals from reclaiming the HSM; and
 - whether there have been formal enforcement actions for violations of the hazardous waste regulations.

Hazardous Secondary Materials Requirements for Generators, Reclamation Facilities, Intermediate Facilities, and Transporters

- HSM must meet the criteria under the definition of “contained” in 30 TAC Section [335.1\(40\)](#). If HSM is not contained it has been released.
 - HSM released to the environment is discarded and is a solid waste unless it is immediately recovered for the purpose of reclamation.
 - HSM managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and is a solid waste.
- Speculative accumulation is defined in the [Glossary of Terms](#) at the end of this document. Speculative accumulation of HSM is prohibited.

- HSM that is speculatively accumulated is discarded. Discarded HSM is a solid waste and a hazardous waste.
- Generators and operators of receiving facilities are required to notify TCEQ prior to managing hazardous secondary material by submitting EPA Form 8700-12/Site Identification Form and Addendum: Notification of Hazardous Secondary Material Activity.
- HSM that is not managed in compliance with the legitimate recycling requirements is considered discarded and is a hazardous waste.
- A HSM generator, reclamation facility, and intermediate facility must maintain records of all shipments of hazardous secondary materials.
- HSM in transport must be packaged in accordance with U.S. Department of Transportation regulations under 49 CFR parts 173, 178, and 179.
- HSM may only be handled by the HSM generator, the HSM transporter, an intermediate HSM facility or HSM reclaimer, or a facility that has addressed HSM under a RCRA part B permit or interim status standards.
- HSM being transported off-site may only be stored for 10 days or less in Texas at a registered transfer facility operated by a registered transporter in compliance with 30 TAC Section [335.94](#) or in the U.S. by at a transfer facility as defined in 40 CFR Section [260.10](#).
- HSM generators and facility operators must comply with emergency preparedness requirements.
- Export of HSM must comply with the HSM export requirements.

Resources for Hazardous Waste and Legitimate Recycling

Additional information regarding hazardous waste and legitimate recycling is available from the [EPA RCRA Online webpage](#).

Overview of the Recycling Rules

Individuals who generate waste must determine whether the waste is hazardous (30 TAC Section [335.504](#)). Those who generate industrial solid waste must classify the waste per 30 TAC Chapter [335 Subchapter R](#). And, those who generate, manage, store, recycle, reuse, or dispose of industrial solid waste, hazardous waste, or hazardous secondary material must comply with the applicable regulations in 30 TAC, including and not limited to [Chapter 335](#).

Regulatory References

The regulations that govern industrial waste, hazardous waste, and hazardous secondary materials recycling are complex. Texas environmental regulations are found

in [Title 30 of the Texas Administrative Code \(30 TAC\)](#). TCEQ implements Texas' approved hazardous waste program. Federal hazardous waste regulations in Title 40 of the Code of Federal Regulations (40 CFR) are adopted in rules under 30 TAC with or without changes. Therefore, generators and facility operators in Texas must comply with the federal hazardous waste regulations as adopted in 30 TAC. The federal regulations are available on the [EPA's regulations webpage](#).

Contact Us

If you have questions, please contact TCEQ's Industrial and Hazardous Waste Permits Section, at ihwper@tceq.texas.gov or 512-239-2335.

Glossary of Terms

The following brief explanations are provided here for your convenience. These brief explanations do not take the place of any the legal definitions in state or federal regulations.

- *accumulated speculatively*—Material is speculatively accumulated if 75% or more of each hazardous waste (recyclable material), nonhazardous industrial waste (nonhazardous recyclable material), and hazardous secondary material in storage on-site on January 1st has not been recycled, or transferred to an off-site facility for recycling, by January 1st of the following year. Speculative accumulation is sham recycling.
- *by-product*—A material that is not one of the primary products of a production process and is not solely or separately produced by the production process.
- *deed recordation*—The act of amending a deed to property to reflect the disposal of a waste on that property (deed recordation requirements are under 30 TAC [Section 335.5](#)).
- *hazardous waste*—Any waste identified or listed by the EPA as being hazardous in 40 CFR [Section 261.3](#) which is adopted in Texas regulations under 30 TAC [Section 335.504](#) (Hazardous Waste Determination).
- *hazardous waste numbers*—Alphanumeric characters that designate a waste as being hazardous.
- *industrial source*— An industrial activity, manufacturing activity, surface mining operation, or agricultural operation that generates solid waste.
- *industrial waste (also known by its official name of “industrial solid waste”)* — means industrial solid waste as defined in Texas law to mean “solid waste resulting from or incidental to a process of industry or manufacturing, or mining or agricultural operations.” Industrial waste may be classified as hazardous waste, excludes municipal solid waste under the jurisdiction of TCEQ, and excludes oil and gas waste under the jurisdiction of the Railroad Commission of Texas.
- *nonindustrial source*—An source of waste that is not an industrial source, such as an institutional, commercial or municipal source, or an activity under the jurisdiction of the Railroad Commission of Texas.
- *nonwaste*—A material that is not a waste because it has not been discarded, does not meet the definition of solid waste, or meets the conditions of an exclusion from

the definition of solid waste such as a commercial chemical product being used for a legitimate purpose.

- *permit*—A written document issued by TCEQ which, by its conditions, may authorize the permittee to construct, install, modify, or operate a specified waste storage, processing, or disposal facility in accordance with specified limitations.
- *reclaimed*—A material is reclaimed if it is processed to recover a usable product or if it is regenerated.
- *recycled*—A material is recycled if it is used, reused, or reclaimed.
- *scrap metal*—Bits and pieces of metal parts (such as bars, turnings, rods, sheets, wires) or metal pieces that may be combined with bolts or soldering (such as in radiators, scrap automobiles, railroad boxcars, and so on) that when worn or superfluous can be recycled.
- *sham recycling*—Sham recycling is recycling that is not legitimate [30 TAC Section [335.1\(160\)\(D\)](#)].
- *spent material*—A material that has been used, and as a result of contamination, can no longer serve the purpose for which it was intended.