



Can I Recycle Some of My Industrial or Hazardous Wastes?

Purpose. The purpose of this document is to assist those who recycle industrial or hazardous waste or who are thinking about doing so. Please note the glossary of terms used in this document on page 5.

Regulatory References. The regulations that govern industrial and hazardous waste recycling are fairly complex. Texas regulations can be found on the TCEQ's web site at www.tceq.state.tx.us under the link "Rules, Policy & Legislation." Environmental regulations in Texas are codified in Title 30 of the Texas Administrative Code (30 TAC), while federal regulations are codified in Code of Federal Regulations, Title 40 (40 CFR). The federal regulations are available on the Environmental Protection Agency's (EPA) web site at www.epa.gov.

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

- 30 TAC Section 335.1 (Definitions) (131)
- 30 TAC Chapter 335, Subchapter H (Standards for the Management of Specific Wastes and Specific Types of Facilities)
- 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)
- 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)

Recycling Nonhazardous Industrial Waste. In general, the recycling of nonhazardous industrial

waste is subject to significantly less regulation than is the recycling of hazardous waste (which can come from either industrial or nonindustrial sources). For an explanation of terms, see the glossary section at the end of this document. In most cases, the recycling of *nonhazardous* industrial waste is subject only to the following requirements of 30 TAC Sections 335.4 (General Prohibitions) and 335.6 (Notification Requirements). 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. Under 30 TAC Section 335.1(131)(H), the waste may not even be a waste at all (see the table on pages 3–4, "Is My Material a Waste or Recyclable?"). If a *nonhazardous* industrial waste is legitimately recycled by land application, it is generally *not* subject to the deed recordation. To be sure, consult the requirements of 30 TAC Section 335.5 (Deed Recordation).

In most cases, facilities that recycle only *nonhazardous* industrial wastes are not subject to permitting requirements. However, there are exceptions (see 30 TAC Section 335.24(i)). Those facilities that recycle nonhazardous industrial wastes that are "combustible" or pose a significant threat to human health and the environment may be subject to certain financial assurance requirements (see 30 TAC Section 335.24(j)).

Inherently Waste-Like Materials. Some 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 that will be recycled must notify the TCEQ 90 days before they begin recycling their waste. This is true whether the waste is recycled on-site or off-site.

Notification is easy to accomplish and is done in one of two ways. The traditional way is by completing and returning form TCEQ-0525, “Generator Notification Form for Recycling Hazardous or Industrial Waste.” Form TCEQ-0525 can be obtained from the TCEQ web site at www.tceq.state.tx.us under the link “Forms and Publications.”

The other way to notify the TCEQ is to do so electronically by using the State of Texas Environmental Electronic Reporting System (STEERS). For more information on how to notify the TCEQ using STEERS, consult the TCEQ web site at www.tceq.state.tx.us/goto/steers/overview, or call the STEERS help line at 512-239-6925.

Facilities that receive and recycle industrial or hazardous waste must notify the TCEQ 90 days before their recycling operation starts. Notification can be done by completing form TCEQ-0524, “Notification Form for Receiving and Recycling Hazardous or Industrial Waste” and mailing it to the TCEQ’s Industrial and Hazardous Waste Permits Section at the address on the form. Form TCEQ-0524 is available on the TCEQ web site.

For both the generator of wastes that are recycled and for those who recycle the wastes, subsequent notifications to the TCEQ are required if there are substantial changes in the composition of the recycled material or the method of recycling.

Permits. Facilities that receive and then recycle industrial or hazardous waste for recycling may need a permit to store those materials if the materials are not immediately placed into the recycling process. According to 30 TAC Section 335.24(e), the recycling activity itself does not require a permit.

Generators, receivers, and recyclers of materials that will be recycled that are considered to be “nonwastes” are *not* required to notify the TCEQ. Materials that are not wastes are subject only to Texas Water Code Section 26.121 and 30 TAC Section 335.4. (**NOTE:** According to 30 TAC Section 335.1(131)(I), the TCEQ has the right to challenge claims that a material is exempt or partially exempt from regulation as a waste).

Using the Table, “Is My Material a Waste or Recyclable?” The table on pages 3–4 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 recycling material is a waste. Therefore, it is very important for all parties to ensure that the recycling material is being properly handled not only by the generator, but also by the recycler and the end user.

To use the table:

- Look in the column under “My Material Is...” to identify which material is to be recycled.
- Read across to the column under “Which means that it is a waste if it...” in order to determine under what conditions the material will be considered a waste.
- 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—for an example, if the material meets the comparable fuel criteria found in 40 Code of Federal Regulations (CFR) Section 261.38.

A few final points about the table:

- In the interest of brevity, 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.
- The 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 both 30 TAC Section 335.1(Definitions)(131) and 40 CFR Section 261.4 for the latest updates to the list of exemptions. If you have questions about the recycling rules for industrial and hazardous wastes, please contact the TCEQ at 512/239-6412.

Table: Is My Material a Waste or Recyclable?

My material is ...	Which means that it is a waste if it...	However, it is not waste if it...
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 waste meets the criteria of Section 335.1(131)(H)
	Is applied to or placed on the land	
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), if it meets the comparable fuel requirements found in 40 CFR Section 261.38, or if it meets the criteria for being a fuel/cutter stock found in the Fuels Peer Review Document
	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)	
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 as defined in 30 TAC Section 335.17(9) or a printed circuit board,
	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 which 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 fed into a halogen acid furnace	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(131)(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...
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(131)(F)(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(131)(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 (131)(F)(iv)
A coking by-product waste such as those with EPA hazardous waste numbers K060, K087, K141- K145, and K147- K148	Is not in compliance with 40 CFR Section 261.4(a)(10)	Is in compliance with 40 CFR Section 261.4(a)(10)
A spent sulfuric acid used to produce virgin sulfuric acid	Is accumulated speculatively	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, a petrochemical recovered oil, or a spent caustic solution from a petrochemical refining operation	Is not in compliance with 40 CFR Section 261.4(a)(12), Section 261.4(a)(18), or Section 261.4(a)(19) respectively	Is in compliance with 40 CFR Section 261.4(a)(12), Section 261.4(a)(18), or Section 261.4(a)(19) respectively.

Obtaining Forms. Notification forms TCEQ-0524 and -0525 can be obtained by following the “Forms” link on the TCEQ web site; by contacting TCEQ Publications at 512/239-0028 (voice) or 512/239-4488 (fax); or by writing to TCEQ Publications, MC-195, TCEQ, P.O. Box 13087, Austin, Texas 78711-3087.

For More Information. More information on what is a waste and on recycling industrial and hazardous waste in general can be obtained from:

- 30 TAC Section 335.1 and Section 335.17 (copies of these rules are available on the TCEQ web site at www.tceq.state.tx.us/rules/);
- 40 CFR Section 261.2 and Section 261.4(a), April 4, 1983, *Federal Register* (waste definition proposed) and January 4, 1985, *Federal Register* (waste definition published); and
- RCRA Online at www.epa.gov/rcraonline.

If you have questions, please contact the TCEQ’s Industrial and Hazardous Waste Permits Section, at 512-239-6412.

Glossary of Terms. The following brief explanations are provided here for your convenience. These brief explanations do not take the place of any full, formal definitions in state rules or federal regulations.

accumulated speculatively—If, during the calendar year, starting January 1, 75% or more of the recycling material accumulated at the start of the year is not recycled, the material is “speculatively accumulated.”

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 found in 30 TAC Section 335.5).

hazardous waste—Any waste identified or listed by the EPA as being hazardous in 40 CFR Section 261.3.

hazardous waste numbers—Alphanumeric characters that designate a waste as being hazardous.

industrial source—Any source of waste that is an industrial waste.

industrial waste (also known by its official name of “industrial solid waste”)—A waste resulting from or incidental to any process of industry or

manufacturing or agricultural operation, which may include hazardous waste.

nonindustrial source—Any source of waste that is not an industrial source (see industrial waste).

nonwaste—A material that is not a waste (an example of which is a commercial chemical product being used for a legitimate purpose).

permit—A written document issued by the 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.

recycling material—A material intended for recycling.

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) which when worn or superfluous can be recycled.

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.