

**An Environmental Guide for**

# Texas Printers

**KNOW THE RULES**

**REDUCE POLLUTION**

**SAVE MONEY**

Texas Natural Resource Conservation Commission  
Small Business and Environmental Assistance Division



THE UNIVERSITY OF TEXAS - PAN AMERICAN



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## Who Should Use this Guide?

This guide is intended for smaller organizations in the printing industry that may not know where to turn for answers to questions about environmental regulations. The guide has been developed by the Texas Natural Resource Conservation Commission (TNRCC) in cooperation with the printing industry.

## What Can this Guide Do for Me?

This guide will familiarize you with some **general** information about air, water, and waste regulations. It is tailored to the printing industry and offers suggestions on ways to reduce waste and, possibly, your environmental regulatory burden.

**Caution.** *This guide does NOT contain ALL the information you need* to comply with the law. Do not use or interpret this guide as a substitute for any complete, official state rule or federal regulation. If you have questions, call the TNRCC's Small Business and Environmental Assistance (SBEA) Division for free, confidential assistance at 1-800-447-2827. The enforcement division of the TNRCC cannot seek information about your contact with the SBEA.

## What If I'm Now in Violation of TNRCC Regulations?

It's always better to report your own violations than to be the subject of a complaint or to have violations discovered by the TNRCC during an inspection. In many cases, small businesses may not face fines or sanctions for a first violation if they make a good-faith effort to report problems as soon as they are aware of them and if they develop a TNRCC-approved plan to correct those problems. For confidential help, call the SBEA at 1-800-447-2827.

## We and You

In this guidance document, the pronouns "I," "my," or "you" refer to people or companies covered by the regulations being explained. For example, a headline might read "Why do I have to register with the TNRCC?"

"We" refers to the Texas Natural Resource Conservation Commission (TNRCC) in general or, in particular, to the Small Business and Environmental Assistance Division or its staff. For example, "We will help you find the answer."



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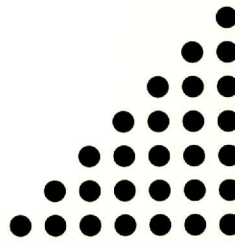
TEXAS STATE DOCUMENT  
UNIVERSITY OF TEXAS PAN AMERICAN  
EDINBURG, TEXAS 78539-2999

Prepared by

**Small Business and Local Government Assistance Section**

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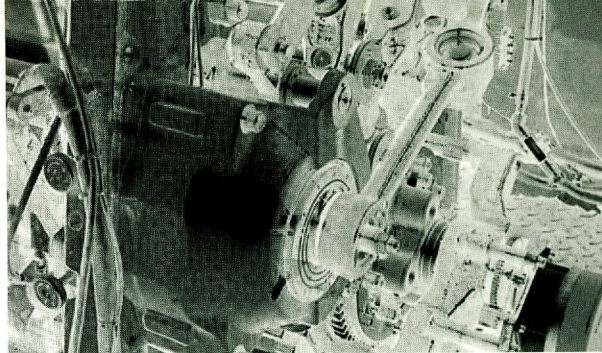
***<http://www.tnrcc.state.tx.us/publications>***

Published and distributed  
by the  
Texas Natural Resource Conservation Commission  
PO Box 13087  
Austin TX 78711-3087



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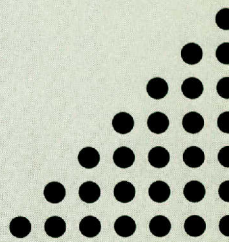




# Air Regulations

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# Air Pollution and You—An Overview

## What Is Air Pollution?

**A**ir pollution is anything your facility or business emits into the air other than steam or carbon dioxide. Volatile organic compounds, sulfur dioxide, particulate matter, carbon monoxide, nitrogen oxides—these are some of the major air pollutants that are regulated to protect human health and the environment. (For explanations of terms used in environmental regulations, see Appendix A.)

If your business does or will create air pollution, the law says you **MUST** obtain an “air authorization” before you begin to modify, construct, and/or operate your facility. Each individual piece of equipment that emits pollutants into the air may require an authorization.

## What Air Regulations Might Apply to My Business?

There are three main types of air pollution regulations that you may have to follow; you must decide which ones apply to you:

- state air pollution control regulations;
- federal air pollution control regulations;
- special regulations in nonattainment areas (areas that do not meet federal air pollution standards—Table 1 lists the counties in Texas’ nonattainment areas).

Figure 1 highlights the air authorizations required by the three types of air regulations. The rest of this chapter goes into detail about each type of authorization.

## How Can I Tell Which Authorizations Apply to Me?

You must have one or more of the three types of authorization, depending on:

- **what** air pollutants your business emits,
- **how much** of those air pollutants your business emits, and
- **where** your business is located.

***Before You Read Any Further:** Sooner or later, you will have to calculate the air emissions that your business produces. Appendix B, “Calculating Your Emissions,” gives step-by-step instructions and examples. To do the calculation, you will need:*

- ▼ *ordinary business records showing your use of supplies such as ink and chemicals;*
- ▼ *labels that appear on ink and chemical containers and material safety data sheets (MSDSs) that come with them; and*
- ▼ *an ordinary pocket or desktop calculator.*

*After you have calculated your emissions, come back to Chapter 1 and work through the sections on “State Air Authorization,” “Federal Operating Permits for Major Sources,” and “Special Requirements in Nonattainment Areas.”*

## State Air Authorizations

All sources of air contaminants (called “facilities”), no matter how big or small, are required to obtain some form of state air authorization. The type of authorization you qualify for will depend on:

- the processes and materials you use,
- the amount of chemicals you use,
- the amount of air pollution your facility creates, and
- your location.

Authorization **does not** depend on any financial aspect of your business, such as sales.

## De Minimis

*De minimis* facilities emit such minor amounts of air pollution that no other authorization is required. Many categories of facilities or sources are considered *de minimis* because of the nature of their operation. Printers are usually not considered *de minimis*. For more information about *de minimis* status, call Small Business Assistance at 1-800-447-2827.



## Air Permit by Rule

Permits by Rule (PBRs) are designed for businesses that have relatively small amounts of air emissions. Each PBR authorizes the air emissions from a specific type of business or from a specific process. Each PBR contains limitations and non-negotiable conditions that must be met by a business claiming authorization under that PBR.

Most small printers qualify for one or more PBRs. You can save time, money, and paperwork if your business qualifies for a PBR. PBRs are approved more quickly than an air quality permit, and there's no reporting.

All PBRs are located in the Texas Administrative Code, Title 30, Chapter 106. General requirements are listed in rules 106.1-106.13. Permit by Rule 106.418 authorizes emissions from printing presses. You can find the text of all PBRs on the TNRCC Web site, [www.tnrcc.state.tx.us](http://www.tnrcc.state.tx.us), by clicking on the link to "Rules," selecting "View Rules" and then scrolling to Chapter 106.

### What Should I Know about PBRs?

PBRs have specific, non-negotiable conditions that your business must meet. It is important that you keep accurate records and documents to verify that you meet the conditions of the PBRs you claim. Pay careful attention to PBR criteria before you increase your production capacity or make process changes that will affect the amount or type of your air emissions. Such changes may cause you to lose your PBR and require you to apply for a new PBR or an air quality permit.

More than one PBR may apply to your business. The fact that one process or piece of equipment qualifies for a PBR does not mean that other processes or

equipment automatically qualify. For example, you might construct metal or wood frames and display cases into which you place materials that you print. The metal- and wood-working functions would not fall under your printing PBR. Air emissions from these activities would require their own, separate air authorizations.

In addition, if you carry out other pollution-producing activities on your property that are not integral parts of printing—such as gluing, binding, or coating—you must apply separately for a PBR or an air quality permit for these activities.

### Who Can Apply for a PBR?

Small sources of air pollution may claim one or more PBR as long as their emissions fall within certain limits. To be eligible for a PBR, you must meet the general requirements listed in 106.1-106.13. You cannot emit more than 25 tons per year of any of the following:

- volatile organic compounds (VOCs);
- sulfur dioxide (SO<sub>2</sub>);
- particulate matter (PM<sub>10</sub>) that is small enough to be inhaled; and
- other air contaminants (except carbon dioxide, water, nitrogen, methane, ethane, hydrogen, and oxygen).

If your facility emits more than 25 tons per year of any of the above-mentioned air pollutants, you may alter your process to reduce your emissions and meet the requirements of the PBR. You may also alter your processes to meet other limitations as identified by specific PBRs. If you decide not to alter your process to qualify for a PBR, you must apply for a State Air Permit.

## Figure 1. Air Authorizations

### State Air Authorization

If your business creates air pollution in Texas, you **MUST** have some type of state air authorization **BEFORE** you construct your facility, either

- ▼ *De Minimis*,
- ▼ a Permit by Rule,
- ▼ a Standard Permit, or
- ▼ an Air Quality Permit

### Federal Air Authorization (Operating Permit)

(Title V of the Federal Clean Air Act)

Required **only** for "major sources" of air emissions (see "What Is a Major Source—and Am I One?" on page 5)

### Special Regulations for Nonattainment Areas

Requirements differ depending on how far the area is out of compliance with federal standards for air quality (see Table 1).

Not all businesses that create air pollution have special requirements.

**Note:** If your facility does rotogravure or wide-web flexographic printing, another federal standard applies to you. The standard is called a National Emission Standard for Hazardous Air Pollutant (NESHAP). For more information see "What About Other Federal Air Requirements?" on Page 6.



## Is There a PBR Just for Printers?

Yes. PBR 106.418 authorizes the air emissions from printing operations and supporting equipment, provided that certain conditions are met. See the complete PBR in the box below.

### ***The Printer's PBR (30 TAC 106.418)***

Printing operations (including, but not limited to, screen printers, ink-jet printers, presses using electron beam or ultraviolet light curing, and labeling operations) and supporting equipment (including, but not limited to, corona treaters, curing lamps, preparation, and cleaning equipment) which directly supports the printing operation are exempt, provided that all the following conditions of this section are satisfied.

(1) The uncontrolled emission of volatile organic compounds (VOC) and solvents (including, but not limited to, those used for printing, cleanup, or makeup) shall not exceed the following rates:

(A) 15 tons per year (tpy) for any single printing operation proposed to be covered by this section; and

(B) 25 tpy for all printing operations on the property covered by permits by rule.

(2) Facilities which release ten tpy or more of VOC emissions from all printing operations permitted by rule at the site must register with the commission using Form PI-7.

(3) Copying and duplicating equipment employing the xerographic method are exempt from paragraphs (4)-(6) of this section.

(4) Printing presses covered by this section shall not utilize heat set, thermo set, or oven-dried inks. Heated air may be used to shorten drying time, provided the temperature does not exceed 194 degrees Fahrenheit (90 degrees Celsius).

(5) Records of ink and solvent usage shall be kept in sufficient detail to show compliance with paragraph (1) of this section and shall be maintained for a two-year rolling retention period.

(6) Screen printing operations requiring temperatures greater than 194 degrees Fahrenheit (90 degrees Celsius) to set the ink are exempt from paragraph (4) of this section.

(7) Facilities located in ozone nonattainment areas shall meet the requirements of Chapter 115, Subchapters B and E of this title (relating to General Volatile Organic Compound Sources and Solvent-Using Processes).

Effective: September 4, 2000

## What Other PBRs Might Also Apply?

If you carry out activities on your property that are not integral parts of printing—such as gluing, binding, or coating—you must apply for a separate air quality permit or PBR. For example, there are PBRs to authorize emissions from comfort heating, small boilers and heaters, and hand-held equipment. If you have emissions not authorized by the Printing Presses PBR, search the entire list of PBRs to find those that may authorize your additional emissions.

■ **Large storage tanks.** Printing facilities that use tanks with a capacity of more than 1,000 gallons to store ink and solvents may qualify for PBR 106.418 if the tanks are **solely used to feed or resupply an ongoing printing process or machine**. If your tanks are not directly used to support your printing operation, the PBR may not apply, and the tanks may need a separate PBR or State Air Quality Permit.

■ **Large combustion units.** Combustion units at printing facilities solely used to support a printing process may qualify for PBR 106.418. If your combustion unit (boiler, furnace, drying or curing oven) does not solely support your printing operation, you must get a separate PBR or a State Air Quality Permit.

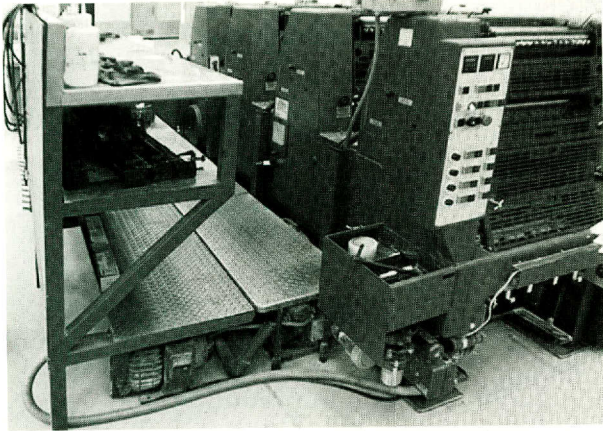
■ **Small combustion units.** PBR 106.181 applies to small combustion units that burn natural or liquid petroleum gas, fuel gas, or used oil. Portable space heaters fall into this category.

## How Do I Get a PBR?

To claim Permit by Rule authorizations to discharge air pollutants, follow these steps:

1. Verify that your business meets the general eligibility requirements mentioned earlier in this chapter, and as found in 30 TAC Chapter 106.1-106.13.
2. Select the specific PBRs that apply to your business. A complete list of PBRs can be found in 30 TAC Chapter 106.
3. Verify that your business can continuously meet every requirement of the PBRs that you claim. The specific requirements of the PBR are not negotiable.
4. Obtain a copy of the general eligibility requirements and the PBRs that you claim and keep them in your permanent files on site, along with documentation that your business meets all the requirements. (The TNRCC provides a series of checklists to help you document that you meet





these requirements. The checklists can be found on the TNRCC Web site, [www.tnrcc.state.tx.us](http://www.tnrcc.state.tx.us); click on the "Forms" link and then enter "checklist" as the keyword. Scroll down to find the checklist for your PBR.)

5. If required by the PBR, file a TNRCC Form PI-7. This form can be obtained on the TNRCC Web site by clicking on the "Forms" link and entering "PI-7" as the keyword.
6. Maintain any records as required by the PBR and TAC Chapter 106.8, and always be ready to demonstrate current compliance should you be inspected and asked for documentation. Such records might include operating hours, material purchase receipts, production records, and manufacturers' equipment specifications.

#### Remember

- ▼ In order to qualify, your business must meet all the conditions in a PBR, as well as all the general conditions.
- ▼ Each PBR applies only to a specific business type or process.

## State Air Quality Permit

If your business cannot qualify for a PBR, you must obtain a State Air Quality Permit. To obtain a permit, you must do four things:

- Submit TNRCC Form PI-1. This form has several versions and sets of instructions. Call the Small Business Assistance Hotline (1-800-447-2827) if you have questions about which version is right for you. To get the form, go to the TNRCC Web site ([www.tnrcc.state.tx.us](http://www.tnrcc.state.tx.us)), click on "Forms," and type PI-1 into the box headed "Keyword."
- Pay a fee.

- Supply additional information about your production process.
- Post a public notice.

Once your application is approved, a permit will be mailed to you. The approval process can take six to nine months. You may begin to modify or construct your facility once you receive your permit. If you have questions about the permitting process, or have already started construction without authorization, please call the Small Business Assistance Hotline at 1-800-447-2827.

## Is the "Grandfathered" Status Still Available?

In 2001, the Texas Legislature required all grandfathered facilities to apply for an air authorization or shut down their operations. To qualify for grandfathered status, your operations must have been fully built and operating before September 1, 1971, and they must not have been changed or moved since that date.

It is highly unlikely that a printer would qualify as grandfathered. However, if you meet the qualifications for a grandfathered facility and you are not required to submit an emissions inventory, you have the option to seek a special type of air permit, the Small Business Stationary Source Permit, by September 1, 2004. If you think you are grandfathered, call 1-800-447-2827 for more information on your options.

## Federal Operating Permits for Major Sources

Any business classified as a **major source** of air pollution must comply with additional regulations and register with the U.S. Environmental Protection Agency (EPA). In general, the emission threshold for becoming a major source of VOCs is 100 tons per year but can drop as low as 25 tons in certain areas (see Table 1 for nonattainment area exceptions). Call 1-800-447-2827 if you think you are a "major source" of air emissions.

### What Is a "Major Source"—and Am I One?

Whether you are a major source depends on two factors:

- the amount of pollution your business has the **potential to emit** (PTE), and
- the county where your business is located.



**To find out whether you are a major source**, you must take two steps:

**Step 1:** Calculate your potential emissions (go to Appendix B for a step-by-step explanation).

**Step 2:** Compare your potential emissions to the threshold amounts shown in Table 1. If your potential emissions exceed the applicable threshold amounts, you are a major source of air emissions. You must obtain a Federal Operating Permit, unless you keep your emissions below the threshold amounts in Table 1. This is called "establishing a federally enforceable limit." Call the Small Business Hotline at 1-800-447-2827 for assistance.

Generally, printers do not use enough solvent, solvent-based inks, and other products containing volatile organic compounds (VOCs) or hazardous air pollutants (HAPs) to qualify as major sources. However, in order to be sure of your status, you **must** calculate your emissions and compare them to the thresholds for your area. It is **your responsibility** to find out whether your facility is a major source.

### Actual vs. Potential Emissions

State air authorization requirements, as discussed earlier in this chapter, are based on the emissions your business actually creates. Federal requirements for major sources are based on the potential emissions your business would create if it operated at its maximum design capacity, 365 days per year, 24 hours per day. See Appendix B for help in calculating your potential to emit.

### What about Other Federal Air Requirements?

The EPA develops and publishes national standards for selected industries. These standards are separate, stand-alone requirements for all businesses of a certain type. On May 30, 1996, a National Emissions Standard for Hazardous Air Pollutants (NESHAP) became effective for rotogravure and wide-web flexographic printers that are major sources of hazardous air pollutants (HAPS). If you meet these criteria, the NESHAP's special requirements (for example, control devices and record keeping) will be included in your Federal Oper-

**Table 1. Major Source Emission Thresholds for Printers**

Emission Thresholds for Volatile Organic Compounds (VOCs) in Nonattainment Areas and for Hazardous Air Pollutants (HAPs) Statewide

Nonattainment Areas and VOC Thresholds <sup>1</sup>				Statewide HAP Thresholds
Beaumont–Port Arthur Area	Dallas–Fort Worth Area	Houston–Galveston Area	El Paso Area	
Hardin, Jefferson, & Orange Counties	Collin, Dallas, Denton, & Tarrant Counties	Brazoria, Chambers, Galveston, Harris, Liberty, Montgomery, Waller, Fort Bend Counties	El Paso County	<b>Threshold:</b> <b>10 tpy<sup>2</sup></b> single HAP,  <b>25 tpy<sup>2</sup></b> all HAPs combined
<b>Nonattainment Status: Moderate</b>	<b>Nonattainment Status: Serious</b>	<b>Nonattainment Status: Severe</b>	<b>Nonattainment Status: Serious</b>	
<b>VOC Threshold: 100 tpy<sup>2</sup></b>	<b>VOC Threshold: 50 tpy<sup>2</sup></b>	<b>VOC Threshold: 25 tpy<sup>2</sup></b>	<b>VOC Threshold: 50 tpy<sup>2</sup></b>	

**Note:** "Nonattainment" areas do not meet federal clean air standards.

<sup>1</sup> The threshold for VOCs in counties not listed in this table is 100 tons per year (tpy).

<sup>2</sup> Tons per year.



ating Permit. Call Small Business Assistance at 1-800-447-2827 if you think that you are a major source and that this national standard may apply to you.

## Special Requirements in Nonattainment Areas

Even if you are not a major source, some special requirements may apply to your operation if you are located in a nonattainment area or in certain counties. If your situation appears on the list below, follow the instructions given.

- If you are a **rotogravure or flexographic** printer located in one of the **nonattainment areas** listed in Table 1 or in **Gregg, Nueces, or Victoria Counties**, and your **potential** emissions exceed your area's major source threshold for VOCs, you may be subject to the requirements found in 30 TAC 115.432-115.439.
- If you are an **offset lithographic** printer located in the **Houston-Galveston, Dallas-Fort Worth, or El Paso** nonattainment areas listed in Table 1, you may be subject to the requirements found in 30 TAC 115.440-115.449.

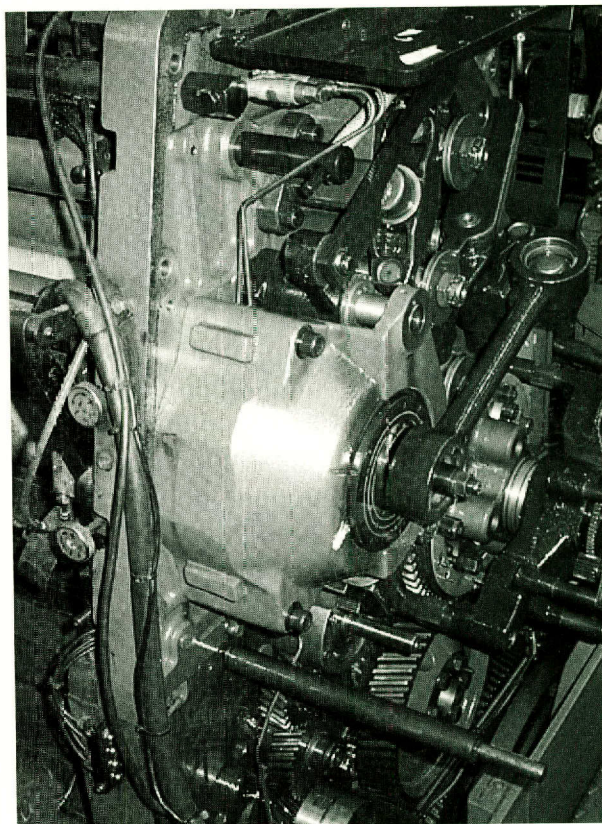
For specific compliance information, call the Small Business Assistance Hotline at 1-800-447-2827. You may also obtain a copy of these requirements on the TNRCC Web site by going to [www.tnrcc.state.tx.us](http://www.tnrcc.state.tx.us), clicking on the link to "Rules," and selecting "View Rules." Scroll down to Chapter 115 and select Subchapter E. Be sure to read the exemptions and compliance schedules.

## Other Air Requirements

The following paragraphs discuss environmental issues that may apply to you.

### What Are Nuisance Emissions?

Under general air regulations, no facility in Texas may create "nuisance" emissions, including odors, "that adversely affect human health or welfare, animal life, vegetation, or the normal use and enjoyment of property."



### What Are Visible Emissions?

TNRCC regulations also specify that a business may not release visible emissions (fine particles of matter) into the air. If this type of matter can be seen coming from your facility, call Small Business Assistance at 1-800-447-2827 for information on how these emissions are regulated and how to reduce them.

### What Is an Emissions Inventory?

You may have to send the TNRCC an annual report called an "Emissions Inventory" if the following conditions are true of your business:

- your business is a major source of air emissions; or
- you are located in a nonattainment area (see Table 1) and your actual emissions of VOCs are 10 tons per year or more.

These reports help track and plan the state's progress in reducing air pollution. For details about the emissions inventory, go to the TNRCC Web site and use the Index to select "E" for "Emissions," and then select "Emissions Inventory." Or call Small Business Assistance at 1-800-447-2827.







# Waste Regulations

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## Defining Waste

Printing facilities generate a variety of different wastes and in different forms: solid, liquid, contained gas, or any combination of these.

A waste is any material that is no longer needed or that can no longer be used for its intended purpose. An unused product being stored for use at some later date is not a waste unless it is stored past its shelf life and can no longer be used, or is spilled.

As shown in Figure 2, wastes can be categorized in several ways, depending on their source and the risk they pose to human health and the environment. Texas regulators use the following terms to describe types of regulated waste:

- **Hazardous:** this means that the waste meets one or more of EPA's strict definitions of "hazardous waste." Printers may generate hazardous wastes.
- **Nonhazardous/Nonindustrial:** this means that the waste is not hazardous and comes from municipal sources: homes, businesses, or corporate sources that do not manufacture products, sites with no production processes. Nonhazardous/nonindustrial waste is frequently referred to as "municipal" waste and may be disposed of through your regular garbage hauler. Be aware that liquids may not be disposed of in a landfill. Printers are nonindustrial.
- **Nonhazardous/Industrial:** this means that the waste is not hazardous but comes from sources likely to

create waste that could be dangerous to humans and the environment if not properly handled.

Industrial facilities make products for wholesale according to a predetermined production plan.

The process of generating waste creates one or more **waste streams**—that is, a particular type of waste from particular types of processes. As one waste is being processed, several other wastes may be generated. For example, if an industrial facility produces a hazardous acidic waste and at some point neutralizes that waste, it has generated two separate "waste streams." Table 2 gives examples of some situations in which waste flows from an operation or process can produce a single or several waste streams.

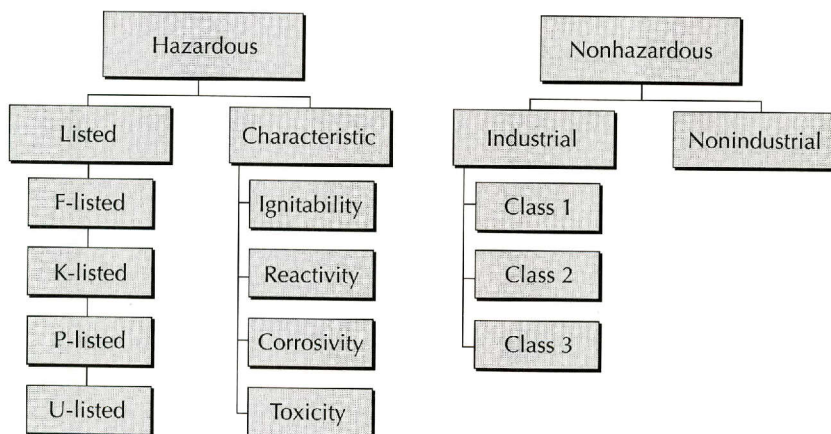
## Hazardous Waste

"Hazardous waste" is any waste that is defined as being hazardous in 40 Code of Federal Regulations (CFR) Section 261.3. There are two different ways that a waste can be designated as hazardous: it can be "listed" as hazardous or it can have hazardous characteristics.

### What Are "Listed" Hazardous Wastes

The EPA has placed more than 400 chemicals and products on four lists. If these chemicals or products are disposed of, they are called "listed" hazardous wastes. These lists are designated by the letters "F," "K," "P" or "U."

Figure 2. Hazardous and Nonhazardous Wastes





“F” and “K” lists include hazardous wastes produced during certain industrial processes. The “F” list includes chemicals from *nonspecific* sources, such as used solvents. The “K” list details hazardous wastes produced from *specific* sources, such as the production of pesticides.

The P-listed wastes are “acutely hazardous.” They are a small subset of hazardous wastes that are considered especially harmful even in small quantities. A printing facility does not usually create acutely hazardous wastes in its processes. However, you may have P-listed wastes if you use certain pesticides on your property, such as methyl parathion. U-listed wastes are generally toxic, though they may also have other hazardous characteristics. For instance, unused acetone is a U-listed waste.

A complete list of “listed” wastes can be found in 40 CFR 261, Subpart D. You can find these lists on the EPA Web site: <http://www.epa.gov/>.

**Important**—Products are not automatically considered hazardous just because they contain ingredients found on the EPA lists. See “Making a Hazardous Waste Determination” on page 13 to help you determine whether your products are hazardous.

## What Are “Characteristically” Hazardous Wastes?

The EPA has identified four characteristics that make a waste hazardous. There is a “TRIC” to remembering these characteristics (Toxicity; Reactivity, Ignitability, Corrosivity.)

- **Toxicity**—waste containing specific concentration levels of contaminants listed by the EPA. The Toxicity Characteristic Leaching Procedure (TCLP) is used to determine whether a waste is toxic. An analytical laboratory can perform this test for a fee.
- **Reactivity**—waste that is unstable or undergoes a rapid, violent chemical reaction when in contact with water or other materials. Peroxides and some bleaches are examples.
- **Ignitability**—waste with a flash point of less than 140° F and easily combustible or flammable, for example, solvents.
- **Corrosivity**—liquid waste that has a pH less than or equal to 2 or greater than or equal to 12.5, such as hydrochloric acid or sodium hydroxide. Liquid wastes are also considered corrosive if they corrode steel at a rate greater than 6.35 mm/year.

**Table 2. An Operation’s Overall Waste Flow Can Produce Multiple Waste Streams**

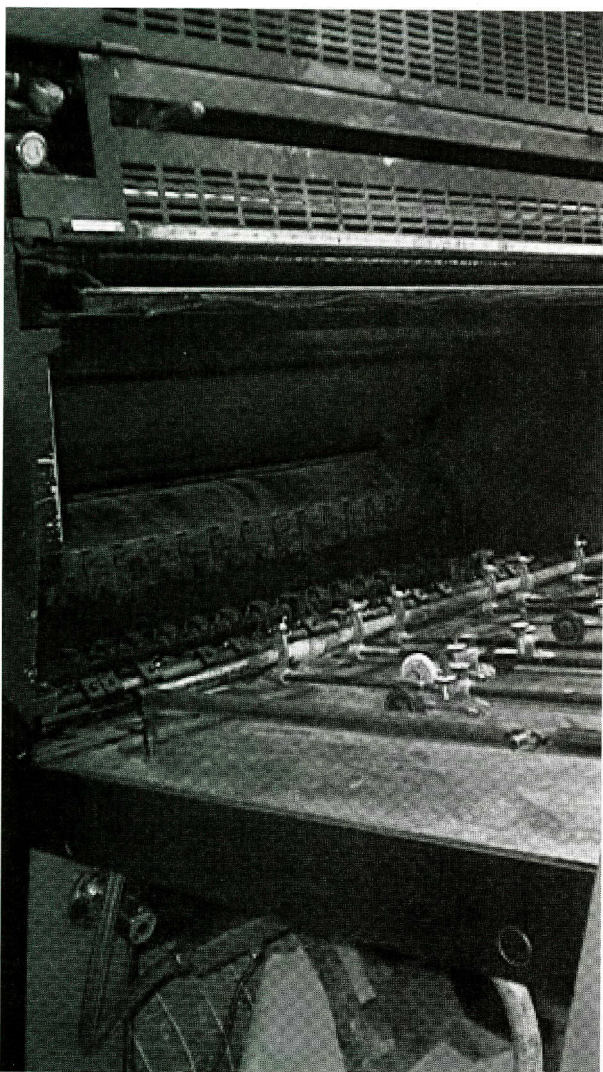
IF you have WASTES that are...	AND they come from PROCESSES that are...	THEN the wastes are considered...
different	similar	<b>different</b> “waste streams” — e.g., a sludge removed from an electroplating vat is not the same waste stream as a liquid removed from an electroplating vat.
similar	different	<b>different</b> “waste streams” – e.g., methylene chloride used in a paint-stripping operation is not the same waste stream as methylene chloride used in laboratory analysis.
similar	similar	<b>the same</b> “waste stream” – e.g., a site may have several paint booths performing the same activities with the same materials, each producing drop cloth waste. The drop cloth wastes from the various locations at this site could be considered one waste stream as long as they were all classified the same.
altered physically or chemically by treatment	N/A	<b>different</b> “waste streams” – e.g., if a sludge is dewatered, it may produce two new waste streams, one a solid and the other a liquid.



Some wastes can be both a **listed** and **characteristic** hazardous waste. For example, spent solvents used to clean a press might be found on the "F" List and might also exhibit the characteristic of ignitability.

### What Is Universal Waste?

Some hazardous printing wastes, such as waste inks and fluorescent bulbs, may qualify as universal waste. Universal waste is a specific type of hazardous waste that is subject to more relaxed regulatory requirements regarding accumulation, record keeping, and shipping. Universal waste does not count toward a facility's hazardous waste generator status, and is not subject to end-of-year hazardous waste generation fees. For more specific information on how to classify your waste streams as universal waste, refer to the TNRCC publication RG-370, "Managing Paint and Paint-Related Waste Under the Universal Waste Rule."



## Typical Printing Wastes

The following paragraphs describe typical wastes, both hazardous and nonhazardous, generated by the printing industry.

**Photographic Fixer Solution:** Fixer solution that is processed by an electrolytic or other silver reclamation unit during the printing process does not become a waste until it exits the reclamation unit. At that stage of the process, the fixer solution may be hazardous waste if the silver content is 5 mg/L (milligrams/liter, also known as parts per million) or more. Before silver recovery, fixer solution that is discharged from a processor to a tank or container for accumulation becomes a waste and must undergo a hazardous waste determination.

**Photographic Developer Solution:** Before use, most developer is corrosive. But after its use, the pH level of the developer that has become waste may no longer be in the hazardous waste range of 12.5 or higher. Used developer is generally not considered a hazardous waste because the pH is less than 12.5 and the silver content is less than 5 mg/L.

**Photographic Film and Paper:** Unprocessed photographic paper and film (green film) are hazardous wastes because of the leachable silver content. Processed film and paper are usually nonhazardous because the silver will not leach from the material when tested using the Toxicity Characteristic Leaching Procedure (TCLP.)

**Ink:** Most petroleum-based ink waste is hazardous due to its ignitability and the presence of heavy metals such as lead, cadmium, and chromium. If the ink has not been mixed with another product or waste, the material safety data sheet may provide information sufficient for a proper hazardous waste determination. Most soy-based lithographic inks are nonhazardous unless mixed with ignitable solvent.

**Paper:** Paper stock that must be discarded is not a hazardous waste unless contaminated or mixed with other waste that is hazardous.

**Photo-Direct Plate Processing Waste:** Some electrostatic processes use a kerosene-based toner, dispersant, and toxic, cyanide-based etch. Because these chemicals are ignitable, they are considered hazardous wastes when disposed of. Other photo-direct plate processes use an activator and stabilizer that when combined contain sufficient silver to create a characteristic hazardous waste.



**Shop Towels:** Shop towels contaminated with alcohols, mineral spirits or other ignitable wastes are typically not considered wastes if they are intended for reuse (that is, after laundering or treatment). Shop towels contaminated with a listed solvent, such as tetrachloroethylene, and intended for disposal are listed hazardous wastes.

**Solvents:** Many solvents are totally consumed during the printing process. Leftover portions that must be disposed of may ignite and thus are considered hazardous waste. Acetone, for instance, is an ignitable solvent. Some solvents may be listed waste, tetrachloroethylene for example. Tetrachloroethylene is not ignitable but is a listed hazardous waste. Still bottoms (residues) that result from the distillation of tetrachloroethylene solvent waste also are listed hazardous wastes. Still bottoms also may be characteristically hazardous due to their ignitability. Still bottoms that consist of nonlisted, ignitable solvents are not hazardous wastes unless they are determined to be characteristically hazardous (toxic, reactive, ignitable, or corrosive).

**Fountain Solution:** A mixture of fountain solution concentrate, isopropyl alcohol, and water is normally consumed. Waste fountain solution, though typically nonhazardous, must be disposed of properly. Before you dispose of it, check the material safety data sheet to determine whether the fountain solution concentrate waste might be a hazardous waste. Always check with your local wastewater treatment system before disposing of any waste liquids down the drain.

**Aluminum Plates:** Aluminum plates and most other scrap metal wastes are nonhazardous unless contaminated or mixed with other waste that is hazardous.

**Washwater:** Film processors using a closed loop system may generate a rinse water that is hazardous due to the silver content. However, properly maintained processors that change wash water daily generate wash water that is typically not hazardous due to its low silver content.

**Silver:** Flake silver from electrolytic units and silver sludge from wire-mesh or steel-wool canister recovery units are not considered wastes. The reclaimed silver is a product because it only has to be refined to be usable.

**Empty Containers:** Containers storing acutely hazardous waste must be triple rinsed with an appropriate solvent to be technically considered "empty." A container used to store non-acutely hazardous waste (for

example, ink, fixer, developer) is considered "empty" if all removable wastes have been removed, *and*

- no more than a 1 inch of residue remains; **or**
- in containers **up to 110 gallons capacity**,
  - ▼ no more than 3 percent by weight of the contents remains; **or**
- in containers **over 110 gallons capacity**,
  - ▼ no more than 0.3 percent by weight of the contents remains.

**Commercial Chemical Products:** Some chemical products contain several ingredients which, if discarded individually, would be considered *listed* hazardous wastes. These products are hazardous wastes only if they exhibit one or more characteristics of hazardous waste. Check the material safety data sheet or contact your supplier for information about the waste's hazardous characteristics.

## Making a Hazardous Waste Determination

The law requires you to identify all hazardous waste you generate. This is called making a hazardous waste determination, and there are three ways to do it.

1. Compare the waste to the EPA lists and to the EPA-defined characteristics for hazardous waste (toxicity, reactivity, ignitability, and corrosivity). If the waste is made of a single component, and that component is found on the lists or has hazardous characteristics, then it is hazardous.
2. Use your knowledge of the waste and what is in it to compare the waste to the lists and characteristics. This method is called "process knowledge." Product labels and MSDSs are useful in determining whether the waste is on a list or is characteristically hazardous.
3. If manufacturer's information is not enough to make a determination, arrange for a lab to test the waste and tell you whether it is hazardous.

You are only required to make a hazardous waste determination on each waste one time. You do not have to make another hazardous waste determination unless you generate a new waste or the content of your waste changes.



## What Records Should I Keep?

If you use *process knowledge* and/or *lab analysis* to make a hazardous waste determination, **keep accurate and complete records** of the information you rely on and retain them for at least three years.

# Determining Your Generator Status

To find out what regulations apply to the waste your business creates you must “determine your generator status.” A facility’s generator status determines which rules the facility must comply with and what records and reports must be kept.

To determine your generator status, you should count the amount of both hazardous waste and acutely hazardous waste your business generates during a calendar month. You should count all quantities of hazardous waste and acutely hazardous wastes that are:

- packaged and transported away from your business,
- accumulated on the property for any period of time before being sent off site for disposal or recycling,
- placed directly in a regulated treatment or disposal unit at your place of business, or
- generated as still bottoms or sludges and removed from product storage tanks.

## What Is My Generator Category?

The EPA and TNRCC recognize three categories of hazardous waste generators: Conditionally Exempt Small-Quantity Generator (CESQG), Small-Quantity Generator (SQG), and Large-Quantity Generator (LQG). Table 3 summarizes these generator categories.

**Conditionally Exempt Small-Quantity Generator.** CESQGs generate no more than 220 lbs per month (100 kg or about half a 55-gallon drum) of hazardous waste AND up to 2.2 lbs per month (1 kg or less than 1 quart) of acutely hazardous waste (“P” listed waste). There is no time limit on how long CESQGs can accumulate hazardous waste, but they must never store more than 2,200 lbs of hazardous waste on site before having it sent for disposal.

**Small-Quantity Generators.** SQGs generate more than 220 lbs but less than 2,200 lbs per month of hazardous waste (100 kg to 1,000 kg or half a 55-gallon drum to five 55-gallon drums) AND less than 2.2 pounds per month of acutely hazardous waste. SQGs may store up to 13,200 lbs of hazardous waste on site, but they may not keep it for longer than 180 days from the date it is generated.

**Large-Quantity Generators.** LQGs generate more than 2,200 lbs per month (1,000 kg or five 55-gallon drums) of hazardous waste AND/OR generate more than 2.2 lbs per month (more than 1 kg or 1 quart) of acutely hazardous waste. There is no quantity limit on the amount of hazardous waste LQGs can store, but

**Table 3: Hazardous Waste Generator Categories**

Generator Status	How much hazardous waste you can generate per month	How much acutely hazardous waste you can generate per month	How much hazardous waste you can collect in a Waste management unit <sup>1</sup>	Length of time you can accumulate waste <sup>2</sup>
CESQG	up to 220 lbs. (about half a 55-gallon drum of liquid)	up to 2.2 lbs. (about 1 quart)	up to 2,200 lbs. (about five 55-gallon drums of liquid)	no time limit
SQG	220 to 2,200 lbs.	up to 2.2 lbs.	up to 13,200 lbs. (about 30 55-gallon drums of liquid)	180 days <sup>3</sup>
LQG	over 2,200 lbs.	over 2.2 lbs.	any amount	90 days

<sup>1</sup> A waste management unit is an area in your facility where you collect, treat, or store the waste that you generate.

It may be a storage shed, a room, an area within a berm, a solvent distillation unit, etc.

<sup>2</sup> Accumulation begins when waste is first placed in a storage container in the waste management unit, not when the container becomes full. Containers must be labeled “hazardous” and dated.

<sup>3</sup> The limit is 270 days if the treatment, storage, and disposal facility (TSDF) is more than 200 miles away.



they may not store hazardous waste for more than 90 days from the date it is generated.

**Important**

Keep accurate records of how much and what kind of waste you generate monthly.

## Registration Requirements

If you generate more than 220 pounds of hazardous waste per month, you must obtain an EPA identification number and a Texas solid waste registration number. Obtaining these numbers is called “registration.”

### **CESQGs are NOT Required to Register**

Printers classified as CESQGs for hazardous wastes do not have to register with the TNRCC or the EPA. CESQGs may write “CESQG” in place of the ID numbers or manifests and other forms.

### **How Do I Register with TNRCC and EPA?**

If you are required to register, the first steps are to obtain the required EPA identification and state solid waste numbers:

1. **Obtain Forms**—Get forms TNRCC-0002, “Initial Notification Package,” and EPA-8700-12, “Notification of Regulated Waste Activity,” by going to the TNRCC’s Internet site ([www.tnrcc.state.tx.us](http://www.tnrcc.state.tx.us)) and clicking on the link to “Forms.” You can also get copies of forms by calling the TNRCC publications unit at 512/239-0028 or a regional office listed in Appendix D.
2. **Fill Out the Forms**—Complete one copy of the form for each of your plant sites or business locations where you generate or handle hazardous waste. Each site or location will receive its own EPA identification number and state solid waste number. Sign each form and keep a copy for your company records.
3. **Send the forms to:**  
Texas Natural Resource Conservation Commission  
Registration, Review, & Reporting Section, MC-129  
P.O. Box 13087  
Austin, Texas 78711-3087

### **What Happens after TNRCC Gets My Forms?**

Upon receipt, the TNRCC will issue a “Notice of Registration” (see below), which will include both your state solid waste registration number (5 characters long), and your federal waste identification number (12 characters long). These numbers are sometimes referred to as “generator ID numbers.” Use these numbers for all waste management activities at your facility and on all hazardous waste shipping papers, such as manifests, and on correspondence to the TNRCC. Both the state and federal identification numbers will be unique to the site address identified on your form(s).

### **What Is a Notice of Registration (NOR)?**

Along with the identification numbers (see above), the TNRCC will also provide you with a Notice of Registration (NOR) listing all the hazardous wastes you generate and the waste management units at your site. The NOR serves to verify the information you submitted. Keep your NOR current and in your on-site files, and check it periodically to make sure that it accurately reflects your facility’s waste streams and waste management units.

#### **Points to Remember about Registration**

- Printer CESQGs are exempt from EPA and TNRCC registration.
- You only need to register a site once.
- Generators must register with the TNRCC within 90 days of generating hazardous waste above exempt limits for the first time and before shipping hazardous waste for disposal or treatment. They must register with the EPA before any hazardous waste is transported, treated, or disposed of.

## Reporting Requirements

### **Who Has to Send TNRCC an Annual Waste Summary?**

Each calendar year, every printing facility registered as a generator of hazardous waste must report to the TNRCC all hazardous wastes generated and disposed of. All registered generators will automatically



receive an "Annual Waste Summary" (TNRCC Form-0436A) by December each year. You will need information from your manifests and hazardous waste generation records to complete this form, which must be returned to the TNRCC by January 25.

### What Is STEERS and Who Uses It?

Keep your registration up to date, and report changes or additions to your waste management practices. Most changes can be reported electronically with the State of Texas Environmental Electronic

Reporting System (STEERS). For more information on STEERS, call the TNRCC at 512/239-6925. If you are a Large-Quantity Generator, you are required to use STEERS. Other reporting forms are listed in Table 4.

### What If My Generator Status or Location Changes?

You should routinely review your generator status to see whether your business is properly classified. Generator status can change. For example, an SQG may qualify for CESQG status if it has reduced the

**Table 4. Registration and Reporting Forms for Waste Generators**

Form Number	Form Name	Description	Is This Form Used by Generators with a Status of...			Keep For
			CESQG?	SQG?	LQG?	
EPA-8700-12	Notification of Regulated Waste Activity	To register with EPA as a hazardous waste generator and receive an EPA ID number	No	Yes	Yes	while site is active
TNRCC-0002	Initial Notification Package	To register as a hazardous or industrial waste generator and receive a registration number and Notice of Registration (NOR) detailing your waste streams and waste management units. Also used to add a new waste stream or management unit to your NOR	No	Yes	Yes	while site is active
TNRCC-0525	Generator Notification Form for Recycling Hazardous or Industrial Waste	To notify the TNRCC any time a waste is sent off site for recycling or recycled on site	No	Yes	Submit through STEERS	while site is active
TNRCC-0436A or B	Annual Waste Summary	To notify the TNRCC of the amount of hazardous waste generated and handled at a facility each year	No	Yes	Submit through STEERS	3 years
EPA Form R or Form A (TRI)	Toxics Release Inventory (see section on this topic in Chapter 4 of this guide)	To report TRI regulated chemicals	If needed	If needed	If needed	3 years



amount of hazardous waste it generates. To change your generator status, write a letter to the TNRCC explaining how your status has changed. If you move from SQG to CESQG status, your TNRCC generator ID number and EPA identification number will become inactive because CESQGs do not have to register or report.

If you move your business, you must notify the state of your new location and submit a new initial notification package with a letter stating you have moved. The EPA identification and Texas solid waste registration numbers are permanently assigned to a location. Please provide the TNRCC with your old site's solid waste registration number, so that records can be changed to indicate you are no longer doing business there.

## Waste Handling and Disposal

### What Is a Waste Management Unit?

Distinct areas at your facility where you collect, treat, or store hazardous waste before it is sent for disposal are called waste management units (WMU). A WMU can take many forms: it can be a tank, a distillation unit, or a room full of drums.

SQGs may store hazardous waste in WMUs for up to 180 days, and LQGs may store hazardous waste in WMUs for up to 90 days. Regardless of whether a drum is full or not, the time clock for waste accumulation limits begins to tick the day a waste is first added to the container. The important thing to remember about WMUs is that they must be identified on your facility's NOR and they must be inspected.

### What Is a Satellite Accumulation Area?

Unlike waste management units, satellite accumulation areas receive or collect hazardous waste at or near where the waste is first generated. You may accumulate up to 55 gallons per hazardous waste stream or one quart of acutely hazardous waste per satellite accumulation area.

The benefit of using a satellite accumulation area over a waste management unit is that the accumulation time clock does not begin to tick until the containers are full and moved to a WMU. Satellite accumulation containers must be marked with the words "Hazardous Waste" and the date they become full. They must be moved to a WMU within three days of be-

coming full. You must keep a record of all of your satellite accumulation locations, but you do not need to inspect them or identify them on your NOR.

#### Remember

Waste in a WMU **does count** toward your generator status.

### How Should I Store My Waste?

The conditions listed below are required when SQGs and LQGs store hazardous waste in a waste management unit. Though not required for CESQGs, absence of these conditions will draw the attention of inspectors. The TNRCC strongly recommends that CESQGs also maintain the following conditions, which are required for SQGs and LQGs:

- Clearly label each container with the words "Hazardous Waste" and the date you actually begin collecting the waste.
- Keep containers in good condition and do not allow leaks.
- Inspect containers weekly and tanks daily for leaks, corrosion, and bulging. Be sure to keep records of these inspections.
- Keep containers closed except when filling or emptying them.
- LQGs must keep containers with ignitable or reactive wastes at least 50 feet away from your facility's property line and as far as possible from ignition sources in your general work areas.
- Never collect different wastes in the same container that could react with one another.

Before you collect the maximum amount of hazardous waste allowed by your generator status, or before you keep waste on site for the maximum time allowed (see Table 3), you should prepare to have your waste hauled off site for treatment or disposal.

### How Do I Select a Transporter and a Disposal Facility?

You are responsible for the proper management, transport, and disposal of the waste you create. So, you should carefully choose a transporter and a treatment, storage, and disposal facility (TSDF). All SQGs and LQGs must use a registered transporter and disposal company for hazardous waste disposal. Do not dispose of hazardous waste yourself unless you have a permit allowing you to do so.



Although we don't recommend it, CESQGs may transport their own wastes to a landfill—if the landfill will accept your wastes. **Be sure to check with your local landfill first.** If CESQGs choose this option, they must comply with all transport requirements of the Texas Department of Transportation.

For help in choosing a transporter or TSDf, check with the following sources:

- the TNRCC or EPA regional offices;
- businesses that may have experience in using a hazardous waste transporter or TSDf;
- trade associations for your industry that might keep a file on companies that handle hazardous waste; and
- TNRCC Publication GI-225, Commercial Hazardous and Industrial Solid Waste Management Facilities.

#### **Allow Time to Choose and Check Your Transporter**

It takes time to choose a transporter and a TSDf and to check their references. Make sure you allow plenty of time to properly research your options, so that you can responsibly ship your waste before the storage deadline expires. Contact the transporter and TSDf you choose and verify that they have an EPA identification number and that they can and will handle your hazardous waste.

#### **When Do I Use a Manifest?**

Each time you have hazardous waste hauled, complete the form titled Uniform Hazardous Waste Manifest (TNRCC-0311). Often called just "the manifest," this form has four copies.

- **Green:** you keep this copy.
- **Yellow:** for the transporter.
- **Pink:** kept by the disposal facility.
- **White:** returned to you by the disposal facility.

Use the manifest to document your hazardous waste disposal procedures. You are responsible for what happens to any waste you generate, including proper disposal.

- If you don't get the white copy of your manifest back within 35 days after having your waste hauled, call your transporter and/or disposal facility.
- If you still haven't received the white copy within another 10 days, you must inform the TNRCC in writing. This is called filing

an exception report (no special form is needed). Include all information related to having the waste hauled including dates, companies involved, and a copy of the manifest.

Mail exception reports to the TNRCC Registration, Review and Reporting Section, MC 129, P.O. Box 13087, Austin, Texas 78711-3087.

#### **Important**

Waste manifests do not substitute for monthly records.

Order additional hazardous manifest forms (TNRCC-0311) from the TNRCC publications unit following the instructions on the inside back cover. This form is not available on the Internet.

#### **What Is a One-Time Shipment?**

On occasion, transporters or disposal companies may require CESQGs to obtain temporary TNRCC solid waste registration numbers, temporary EPA identification numbers, and temporary 8-digit Texas waste codes. In such a case, CESQGs may use the one-time shipment form (TNRCC-0757, One-Time Shipment Request) to obtain these temporary numbers from the TNRCC. Registered generators may not use the One-Time Shipment form.

## **Waste Reduction**

There are a number of ways that you can reduce waste and cut hazardous waste disposal costs while lowering your regulatory burden as well. The suggestions offered here identify some ways to reduce waste in printing operations, from prepress to postpress. For more information about these and other waste reduction suggestions, obtain a copy of *Profile of the Printing Industry*, EPA 310-R-95-014. This document is available from:

Superintendent of Documents  
U.S. Government Printing Office  
Washington, DC 20402  
202/512-1800  
FAX 202/512-2250

#### **How Can I Reduce Waste in Pre-Press Image-Making Operations?**

Image-making usually involves typesetting and photo developing. Typical wastes from this process



include photographic chemicals, paper and films, and silver.

**Hazardous Waste Disposal.** Use chemical substitutes such as nonsilver photographic films.

**Labor Costs.** Use electronic imaging to replace the repetitive steps of photographing, editing, reshooting, and photo developing. Electronic imaging includes the capability of editing images on a computer.

**Wasted Materials.** Use inventory-control methods to reduce the stockpiling of supplies and to eliminate chemical spoiling. Paper and film are examples.

### How Can I Reduce Waste in Pre-Press Plate-Making/Screen-Making Operations?

Typical waste streams include outdated material and chemicals; damaged or used plates and screens; wastewaters containing acids, alkalis, solvents, plate coatings, developers, screen emulsions; and rinse water.

**Expensive Chemicals.** Recycle used chemicals and recover heavy metals. Also consider counter-current washing. Filter wastewater from screen-making to remove small particles before discharge.

**Costly Throwaways.** Recycle plates and plate materials. The manufacturer or a metal recovery business will usually provide this service.

**High Total Costs.** Search for substitute chemicals that cut costs. For example, using water-developed lithographic plates and film may eliminate the need to pretreat wastewater before discharge.

**High Disposal Costs.** Replace ferrocyanide bleaches with iron-EDTA bleaches. This may eliminate some treatment and disposal requirements.

**High-Cost Processes.** Use a laser plate-making process to replace chemically developed plates.

**High Volumes of Waste.** Washless processing systems can greatly reduce wastewater volume, sometimes as much as 95 percent, offsetting up-front costs.

### How Can I Reduce Waste in Press Operations?

Inks, substrate, cleaning solutions, and fountain solutions are common wastes from press operations.

**Work Practices.** Train employees to use good work practices, such as covering reservoirs and containers;

schedule jobs according to increasing darkness of ink color; eliminate stockpiles and reduce spoilage by limiting inventory to just what you need.

**VOC Emissions.** Lower ink vaporization by using diaphragm pumps, which do not heat ink as much as mechanical vane pumps. Automatic cleaning equipment can often be fitted to existing presses. This investment can lower VOC emissions and reduce the amount of cleaning solution used. Further, this type of equipment will usually allow recycling of the cleaning solution. Use fountain chillers to reduce volatilization of solvent from dampening system fountains.

**Disposal Costs.** Recycle waste solvents. Used solvents may be reusable if they are collected and stored separately. Cleaning equipment or thinning ink are other uses. You can reduce overall toxicity of your waste and thus cut back on hazardous waste disposal costs by eliminating fountain solutions that contain chromium.

**Permitting Requirements.** Find ways to use low-VOC inks and cleaning solvents to lower VOC emissions. Consider new inking and cleaning systems. Some feature oil-based inks that can be converted to a water-soluble state, enabling use of a water-based blanket wash.

### How Can I Reduce Waste in Post-Press Operations?

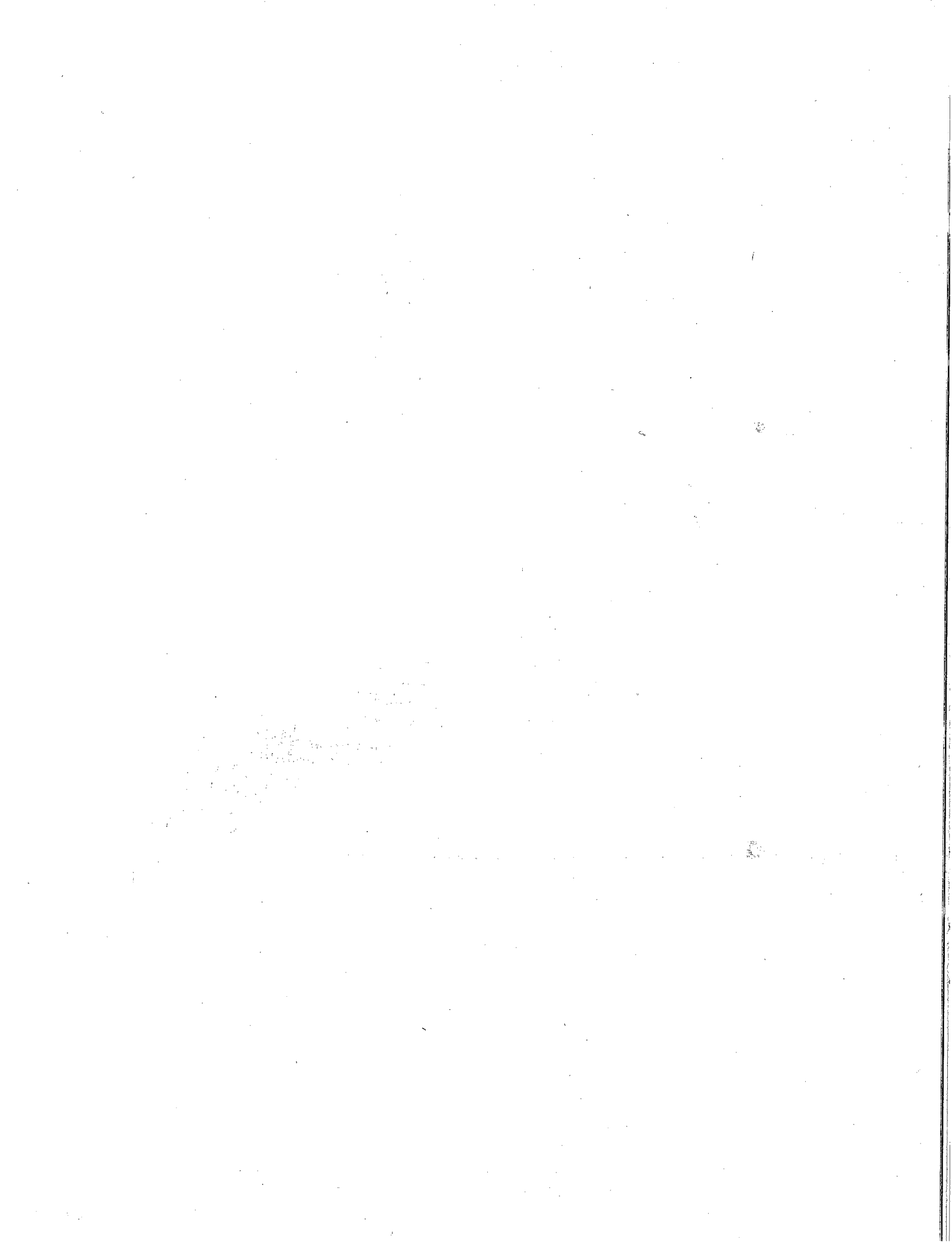
Trimming scraps, rejects, and VOCs from adhesives are all by-products of the final steps in making a printed product.

**Disposal Costs.** Collect and segregate *all* recyclable materials. Some recyclers will *pay* for paper scraps, cardboard, and many other materials if quantities are large. Total costs can be reduced *and* revenues increased through these recycling efforts. If your business does not generate waste in volume, join with other local businesses to combine recyclable materials.

**VOC Emissions.** Use water-soluble adhesives to replace those that are VOC-based.

Explore ways to encourage your customers to purchase economical and environmentally sound printing services. Recycled paper, for instance, will likely meet the printing needs of many of your customers.



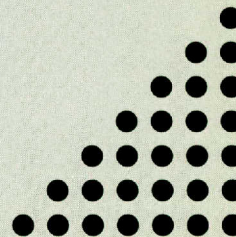




# Water Regulations

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## Defining Wastewater

The most common types of wastewater that printers produce are:

- water contaminated with solvents, adhesives, inks, and other coatings; or
- any other water left over from a process.

You must make a hazardous waste determination of all your wastewater as well as your wastes, using the methods described in Chapter 2. If you determine that any of your wastewater is hazardous, you must follow the procedures described in Chapter 2 for storage, reporting, and disposal.

## Wastewater Permits

### What Kind of Permit Do I Need to Discharge Wastewater?

Generally, wastewater is discharged into either a sanitary sewer leading to a wastewater treatment facility, commonly known as a publicly owned treatment works (POTW), or into a storm drain or ditch leading to “waters in the state.” You must have a TPDES permit if you discharge into or near waters in the state.

TPDES stands for the Texas Pollutant Discharge Elimination System. This is the Texas version of the National Pollutant Discharge Elimination System (NPDES). NPDES is a federal regulatory program to control discharges of pollutants to surface waters of the United States. For a complete definition of waters in the state, see Appendix A.

Where you discharge your wastewater determines what type of permit you need.

- If your wastewater goes to a POTW, call the POTW in your city or town to ask if they have any special conditions regarding your discharge.
- If your wastewater goes into or near a lake, river, or stream, call TNRCC’s Wastewater Permitting staff at 512/239-4671 for a TPDES Wastewater Discharge Permit.
- If your wastewater is stored in a holding pond, notify the TNRCC’s Wastewater Permitting Section and request a TPDES Land Application Permit.

### *Important*

Hooking up to a POTW may be easier than obtaining permits to authorize discharging wastewater into waters in the state.

## Texas Storm Water Permits

Storm water is rainwater runoff that may be polluted due to contact with manufacturing or processing activities or with raw materials. Certain industries and construction operators must have permits that specify how they will limit storm water pollution and improve the quality of streams, lakes, and rivers into which storm water flows.

### Do I Need a Storm Water Permit?

Printers are required to obtain a storm water permit or qualify for a no-exposure waiver. Your primary Standard Industrial Classification Code (SIC) determines whether you must obtain a storm water permit. Printers are in SIC Major Group 27 (Printing, Publishing, and Allied Industries), one of the groups required to obtain storm water permits.

A list of all SIC codes subject to industrial storm water permitting requirements is included in the permit. To find out your SIC code, refer to Box #5 at the top of your Texas Workforce Commission Tax Employer’s Quarterly Report (Form C-3). The Texas Workforce Commission (at 1-800-227-7816) or the State Comptrollers Office (at 1-800-252-5555) can also give you your SIC code.

Any regulated industry without a current storm water permit should prepare a Storm Water Pollution Prevention Plan (SWP3) and submit a Notice of Intent (NOI) to comply with the requirements of the general permit as soon as possible.

### How Do I Qualify for a “No-Exposure” Waiver?

Printers are required to obtain a storm water permit **unless** they can certify that a condition of “no-exposure” exists at their facility. One of the criteria



for a no-exposure waiver is that all items in the following list are covered or located indoors and, therefore, are not exposed to storm water:

- raw materials;
- intermediate products, by-products, or final products;
- waste materials;
- industrial machinery; and
- material-handling equipment or activities (storage, loading and unloading, or transportation of anything on this list).

Printers meeting all the no-exposure requirements must fill out the “No-Exposure” Certification (TNRCC Form 10383) and submit it to the TNRCC. This form is available on the TNRCC Web site. Facilities that apply for a no-exposure waiver must operate under those conditions at all times. No-exposure certifications are good for the life of the general permit, typically five years, and must be renewed when a new general permit is issued. If you are unable to qualify for a no-exposure waiver or can no longer operate under the no-exposure criteria, you must obtain a storm water permit.

## What Type of Storm Water Permit Do I Apply For?

There are two permitting options available to printers that require a storm water permit and that cannot meet the No-Exposure Certification.

**Option 1—Multi-Sector General Permit (MSGP) #TXR050000.** Obtain coverage under the TPDES Industrial Storm Water Multi-Sector General Permit (MSGP). This permit covers groups of businesses that conduct similar operations and/or discharge similar waste. The application process for the general permit is much simpler, less expensive, and less time-consuming than the application process for an individual permit. To apply for the MSGP:

- Obtain a copy of the MSGP from the TNRCC Web site, [www.tnrcc.state.tx.us](http://www.tnrcc.state.tx.us). Click on the Index link and look for “Storm water” or “TPDES.” Also obtain the Notice of Intent (NOI) form, which serves as the application to gain coverage under the MSGP, and the Core Data Forms, which must accompany the application. Or call 512/239-4671 and ask for the MSGP and NOI Form.
- Develop a Storm Water Pollution Prevention Plan (SWP3), as directed by the MSGP. Your SWP3 must be developed **before** submitting the NOI.



The SWP3 is a working document, and is kept on site for review by your staff members and by TNRCC investigators when requested.

- Mail the NOI and Core Data Forms to:  
Storm Water Permits, MC 148  
Texas Natural Resource Conservation Commission  
P.O. Box 13087  
Austin, TX, 78711-3087.

**Option 2—Individual Permit.** An individual permit is written for a single facility and is site specific. An individual permit requires the completion of a detailed application and technical report. To apply for an individual storm water permit:

- Call 512/239-4671 and ask for the Industrial Wastewater Permit Application. The permit application consists of two parts: (1) the administrative report and (2) the technical report.
- Both parts must be completed and submitted in order for your application to be processed.

## How Do I Stay in Compliance with My General Permit?

- At your site, keep a copy of your SWP3, a copy of the MSGP, and a copy of the letter received from the TNRCC assigning you a permit number.



- Implement the Best Management Practices (BMPs) you developed in your SWP3. More information on these requirements is provided in the general permit's text.
- Collect samples as directed in your permit. The permit indicates which industries are required to collect samples and how frequently.
- Document all compliance activities related to storm water.
- Update and amend your SWP3 as needed to keep it current.

### Where Can I Get Help or More Information?

- For more information on storm water permits, see the TNRCC Web site at <http://www.tnrcc.state.tx.us> and look under "Storm water" in the index.
- For specific questions, call the TNRCC's Storm Water Permits Team at 512/239-4671.
- Call the TNRCC Small Business Assistance Hotline at 1-800-447-2827 for confidential assistance.
- For pollution prevention assistance, call the TNRCC at 512/239-3100 or visit the TNRCC Web site.

# On-Site Sewage Facility (OSSF) Requirements

## What Is an OSSF and What Wastes Can It Handle?

Businesses may use on-site sewage facilities (commonly referred to as septic systems) only for domestic waste and only for up to 5,000 gallons of waste per day. The domestic waste must be collected, treated, and disposed of on-site.

### Important

Do not use an on-site sewage facility (OSSF) for discharge of production wastewater.

All septic systems must be built and installed according to TNRCC-approved standards. For more information about these standards, call TNRCC's Installer Certification section at 512/239-2428.

## Do I Need a Permit for My OSSF (Septic System)?

You must obtain a permit to construct and operate an OSSF. These permits are issued by local governmental units that have been authorized as an agent of the TNRCC or directly by the TNRCC if no local unit of government has been authorized to issue the permit. Call the TNRCC regional office in your area (see Appendix C) for more information.



# General Regulations

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## Staying in Compliance

**M**any small businesses run afoul of environmental regulations with two simple mistakes: failing to report changes in their status and failing to keep proper records.

### What If I Make Changes at My Business?

If you plan to change any process, method of operation, or equipment at your business, you must consider how the change will affect your current regulatory status. For instance, will you be able to retain your current air authorization or will you need to apply anew? You may need to apply for a new Permit by Rule or perhaps amend an existing Air Permit. Will your waste generator status change? Will you need to comply with new waste management requirements?

### What Records Do I Need to Keep?

Keep whatever records are necessary to verify that you are in compliance with the conditions of your authorizations. For example, if your business creates hazardous waste, you must keep monthly hazardous waste generation records, shipping manifests, notices of registration, and annual waste summaries (depending on your generator status), and you must retain these records for a minimum of three years (see Chapter 2 for more information on these requirements). Air emission authorizations require compliance records be kept for up to five years in most cases.

If your business falls under the reporting requirements for either the Emissions Inventory (see Chapter 1) or the Toxics Release Inventory (see below), you must also keep all records necessary to file those reports or to document that no report is required.

## Toxics Release Inventory

Under the federal right-to-know law, certain facilities must report “releases” of specific toxic chemicals in waste. These reports are compiled into a state-by-state Toxics Release Inventory (TRI). Reportable items include toxics in your air emissions or water discharges and all hazardous waste that your facility generates.

You are required to file a report if your facility meets **all** of the following conditions:

- you have 10 or more full-time employees or their equivalent in total annual employee hours worked (that is, 20,000 hours); and
- you annually use at least 10,000 pounds of a TRI-listed chemical, or you manufacture or process more than 25,000 lbs of a TRI-listed chemical; and
- you are one of the specific industries included in Standard Industrial Classification Codes 20 through 39.

For more information on TRI requirements, contact TNRCC’s TRI program at 512/239-4TRI (4874), or visit the TNRCC’s Web site at <http://www.tnrcc.state.tx.us>. Click on the “Index” button and find “Toxics Release Inventory”; or visit the EPA’s TRI home page at <http://www.epa.gov> and click on the “Search” button to find “Toxics Release Inventory.”

## Property Tax Exemptions

Your pollution control equipment may be exempt from property tax. Under Proposition 2, adopted by the Texas Legislature in 1993, certain property and systems used by businesses for environmental compliance can be exempt from property taxes. Your equipment may be on the preapproved list. If it is not, you may still ask the TNRCC to determine whether your pollution control equipment qualifies for a property tax exemption.

Examples of preapproved tax-exempt pollution control equipment used by some printers include cyclone-type dust control equipment, silver recovery equipment, and solvent distillation or recycling equipment.

If you think your business might qualify for this tax exemption, get the guidance document *Property Tax Exemptions for Pollution Control Property: Draft Guidance Document for Preparation of Use Determination*. You can locate this and other information on the TNRCC Web site by using the index to select “Tax Exemption.” For further information about the “Prop 2” program, call Small Business Assistance at 1-800-447-2827.



## Texas Audit Act

The Texas Audit Privilege Act (Audit Act) provides an incentive for you to perform voluntary audits of your company's compliance with environmental, health, and safety regulations.

In many cases, you can be exempt from penalties for violations that you find in a voluntary audit, as long as you follow these steps:

- notify the TNRCC that you plan to do an audit,
- complete the audit,
- notify the TNRCC of what problems you found, and
- correct the potential violations in a timely manner.

Some information discovered from an audit is privileged and confidential and cannot be used against you in civil or administrative proceedings. For information about the audit process, get TNRCC publication number RG-173, *Texas Environmental, Health, and Safety Audit Privilege Act* (see the inside back cover of this guide for ways to obtain TNRCC publications). For more information about the program, call Small Business Assistance at 1-800-447-2827.

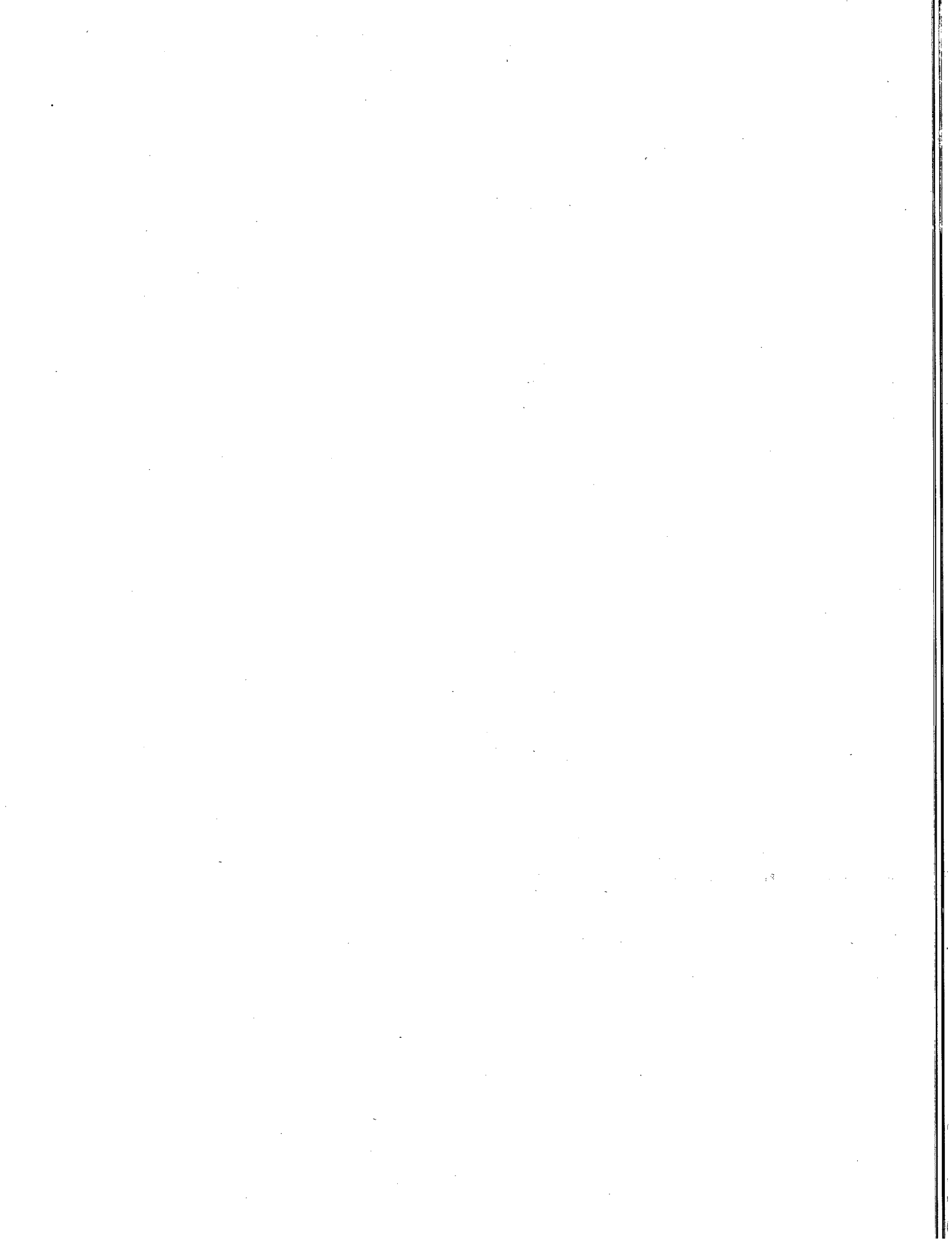
## Accidental Releases

Any time you have an accidental release, it's a good idea to keep a record of the event, and it is required for all unintended air emissions. Reporting is also required if the spill or emission is above certain thresholds, commonly known as "reportable quantities." The reportable quantities and requirements for spills can be found in 30 TAC, Chapter 327. The reportable quantities and requirements for air emissions can be found in 30 TAC, Chapter 101. To notify TNRCC about an accidental release, call your TNRCC regional office (see Appendix C).

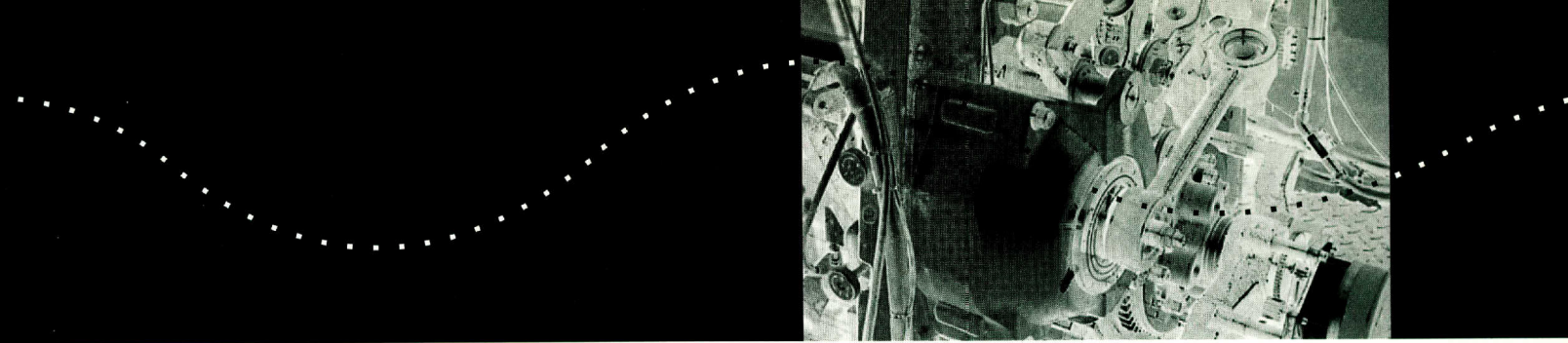
## Other Rules

Local, city, county, state, and federal agencies may impose other requirements pertaining to registration, notification, permits, inspections, certificates of occupancy, or business licenses. For example, some municipal sewage treatment plants issue local discharge permits. The Texas Department of Health requires reporting of large volumes of hazardous materials under its Tier II program; call 512/458-7111 for more information. In addition, local fire departments frequently have reporting requirements. You also may be subject to federal Occupational Safety and Health Administration (OSHA) standards. (See the inside back cover of this guide for ways to obtain more information about OSHA.)



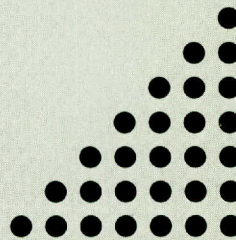






# Appendixes

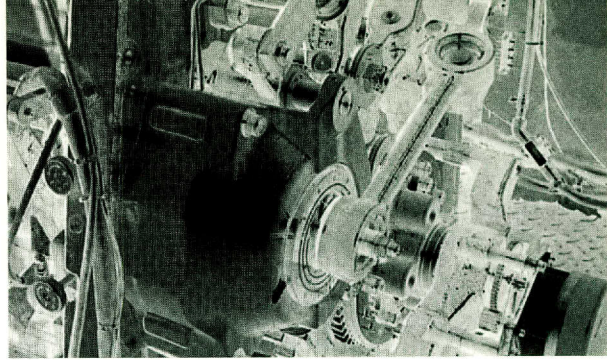
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## Appendix A: Glossary

*For readers' convenience, this list contains brief explanations of abbreviations and terms that are used in this guidance document and/or by federal and state regulators. Nothing in this list takes the place of any full, official definition in laws, rules, or regulations.*

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**acutely hazardous wastes:** a subset of "listed" hazardous wastes that are considered very harmful to human health and the environment. The EPA lists of hazardous wastes can be found on their Web site at [http://www.access.gpo.gov/nara/cfr/cfrhtml\\_00/Title\\_40/40cfr261\\_00.html](http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr261_00.html)

**air authorization:** see state air authorization.

**CFR:** Code of Federal Regulations.

**characteristically hazardous waste:** any waste that exhibits the characteristics of toxicity, reactivity, ignitability, and corrosivity, as defined by the EPA in 40 CFR Part 261 Subpart C.

**Conditionally Exempt Small-Quantity Generator:** a business that creates hazardous wastes in quantities of less than 100kg (220 lbs) per month and acutely hazardous waste in quantities less than 1 kg (2.2 lbs) per month.

**EPA:** the federal Environmental Protection Agency.

**EPA identification number:** a 12-digit number issued by the EPA to identify a facility that generates hazardous wastes. Also referred to as EPA registration.

**generator I.D. number:** see Texas solid waste registration number.

**HAPs:** Hazardous air pollutants; air pollutants that the EPA has determined are so dangerous as to warrant generally lower emissions limits. National standards may apply to businesses that could emit these chemicals at a rate of 10 tons per year or more.

**hazardous waste:** consists of two main categories, "characteristically hazardous waste" and "listed hazardous waste." See those entries.

**hazardous waste determination:** an evaluation of a waste to determine whether it meets the legal definition of a hazardous waste.

**listed hazardous waste:** specific wastes that have been identified by the EPA as hazardous in 40 CFR Part 261 Subpart D.

**major source:** a facility that emits more than a specified amount of a particular pollutant. The amount, called a "threshold," varies for different pollutants; thresholds also vary according to whether the facility is located in a nonattainment area. A business that emits more than the threshold amount is subject to additional regulations.

**nonattainment area:** a county or counties that do not meet federal clean air standards. Degrees of nonattainment include "moderate," "serious," and "severe."

**Notice of Registration (NOR):** a printout of information that is sent to a facility after it first registers with the TNRCC as a waste generator or after it makes some change in its registration information. An important purpose of sending this printout is to obtain feedback on whether the TNRCC has current and accurate information.

**OSSF:** on-site sewage facility, commonly referred to as a septic system.



**Permit by Rule (PBR):** a form of state air authorization that is simpler and less expensive to obtain than a State Air Quality Permit.

**Potential to Emit (PTE):** a theoretical maximum amount of emissions your facility could emit; used in calculations to determine whether you are a “major source.”

**publicly owned treatment works (POTW):** a facility for treating wastewater.

**registration number:** see Texas Solid Waste Registration Number.

**Small Business and Environmental Assistance (SBEA):** a division of the TNRCC that helps small businesses find economical ways to comply with environmental regulations. Small businesses are defined as those with fewer than 100 employees.

**Small-Quantity Generator (SQG):** a business that generates hazardous wastes at a rate of 220 pounds or more per month.

**solid waste:** any discarded material; garbage; refuse; sludge; or other material including solid, liquid, semi-solid, or contained gaseous material intended for disposal. Certain recycled materials are also considered wastes. See also “wastes.”

**state air authorization:** the state of Texas requires businesses that emit air pollutants to have an air authorization. Includes Permits by Rule, standard permits, and State Air Quality Permits.

**State Air Quality Permit:** in contrast to the simpler and no-fee Permit by Rule, a State Air Quality Permit requires you to provide more detailed information in your application along with a fee. Depending on the nature of the permitted facility, the total cost for an air permit (public notice, consulting fees) can easily exceed \$5,000 for even a modest facility.

**state I.D. number:** see Texas solid waste registration number.

**STEERS:** State of Texas Environmental Electronic Reporting System. Enables online reporting of waste management information to the TNRCC by regulated businesses, industries, and other organizations.

**TAC:** Texas Administrative Code; Title 30 of TAC contains TNRCC environmental protection rules.

**Texas solid waste registration number:** a 5-digit number, issued by the TNRCC, for the purpose of identifying a facility that generates wastes regulated by the state of Texas; also referred to in a variety of other ways: generator I.D. number, generator number, state I.D. number, state solid waste number, Texas registration number, registration, registration number.

**TRI:** Toxics Release Inventory; requires certain companies to report air emissions, waste disposal, and wastewater discharges.

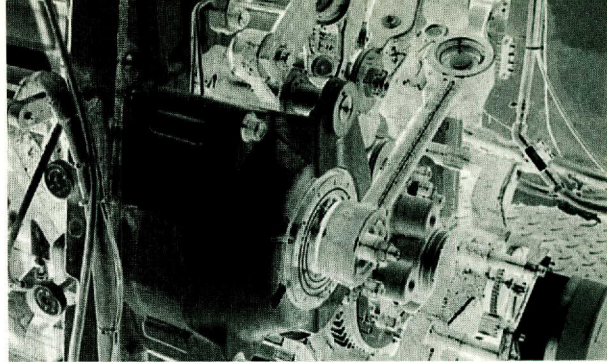
**TSDF:** treatment, storage, and disposal facility; permitted facilities where hazardous waste is ultimately disposed of.

**VOCs:** volatile organic compounds; often found in inks, paints, and solvents. VOCs are one of the main contributors to ground-level ozone.

**waste:** unwanted, discarded, or abandoned materials left over from a manufacturing process; refuse from places of human or animal habitation.

**Waters in the state:** groundwater, percolating or otherwise; lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state; and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside, or bordering the state, or inside the jurisdiction of the state (Section 26.001 of the Texas Water Code.)





## Appendix B: Calculating Your Emissions

You must calculate both your actual emissions and your potential emissions before you can identify which air authorizations apply to your business.

State air authorization requirements are based on the emissions your business actually creates. Federal requirements for major sources are based on the potential emissions (potential to emit, PTE) that your business would create if it operated at its maximum design capacity, 365 days per year, 24 hours per day.

### Calculate Your Actual Emissions

Start by calculating actual emissions from all emission sources at your site for the previous year of your business's operation.

- The emissions that printers must track are volatile organic compounds (VOCs).
- Determine the pounds of VOCs in each chemical you use by reading that chemical's label and material safety data sheet (MSDS.)
- Collect all records showing how many gallons or pounds of each chemical you used during the year. Possible sources for these records include customer billing receipts and copies of purchase records from your suppliers.
- Calculate total amount of VOCs emitted.

### Then Estimate Your Potential to Emit

Estimate your theoretical emissions if you were to operate your business at its maximum design capacity, 24 hours per day, 365 days per year.

## Example of Emissions Calculation

### Calculating Actual Yearly Emissions

Printer A used three different chemicals and 2,192 pounds of ink the previous year. Printer A operated

one eight-hour shift, five days per week. To calculate emissions for the chemicals used during the year, Printer A:

1. Determined the amount of VOCs in each quantity of chemical used.
2. Determined the quantity of each chemical used for the year.
3. Multiplied the quantity used per year by pounds of VOC per container or unit.

Following are his calculations.

#### **Chemical 1: Redux 6000**

VOCs per gallon: 7.81 pounds

Amount used: 66 gallons per year

Gallons used per year times pounds of VOC per gallon:

$$66 \text{ gal/yr} \times 7.81 \text{ lbs of VOC/gal} = 515.46 \text{ lbs VOC/yr}$$

#### **Chemical 2: Silicone Lube**

VOC content: 28%

Amount used: 8 pounds per year

Yearly amount times VOCs percentage:

$$8 \text{ lbs per yr} \times 28 \text{ percent} = 2.24 \text{ lbs VOC/yr}$$

#### **Chemical 3: Isopropyl Alcohol**

VOCs per gallon: 6.51 pounds

Amount used: 26 gallons per year

Gallons used per year times pounds of VOCs per gallon:

$$26 \text{ gal/yr} \times 6.51 \text{ lbs of VOCs/gal} = 169.26 \text{ lbs VOCs/yr}$$

#### **Ink**

VOCs per pound of ink: 5.0%

Amount used: 2,192 pounds/year minus 100 pounds documented waste equals 2,092 pounds/yr

$$2,092 \text{ lb/yr} \times 0.05 = 104.6 \text{ lb VOC/yr}$$



### Total Annual VOC Emissions

Chemical 1 + Chemical 2 + Chemical 3 + Ink =

$$515.46 + 2.24 + 169.26 + 104.6 = 791.56 \text{ lb VOCs/yr}$$

### Converting to Tons per Year

To convert pounds to tons divide by 2,000.

#### Example:

$$(791.56 \text{ lbs VOCs/yr}) \div (2,000 \text{ lb/ton}) = 0.4 \text{ tpy of VOCs (rounded)}$$

### Estimating Potential to Emit

To account for three potential shifts each weekday:

$$0.4 \text{ tpy per shift} \times 3 \text{ shifts per weekday} = 1.2 \text{ tpy weekday potential emissions}$$

To account for potential weekend shifts, assume one day is 20% of a five day week and working all weekend would add 40% to the total emissions, or a total of 140%:

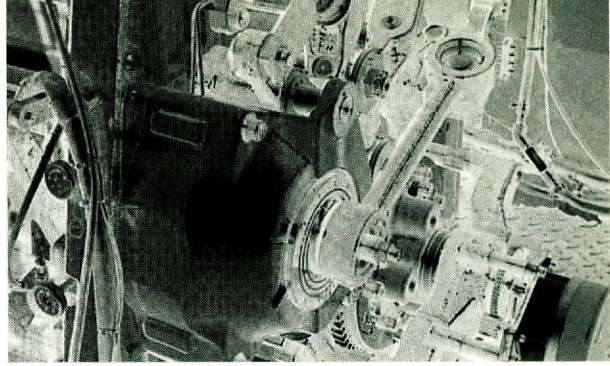
$$1.2 \text{ tpy weekday potential emissions} \times 1.4 = 1.68 \text{ tpy potential emissions}$$

In actuality, your theoretical maximum PTE may be limited by both the space available at your business and by your equipment. In such cases, you may be able to limit the calculation of your PTE to a more realistic level. For more information, call Small Business Assistance at 1-800-447-2827.

### How Do I Use This Result?

Now, turn back to Chapter 1 and compare your potential emissions to those shown in Table 1, "Major Source Emission Thresholds for Pollutants That Printers Commonly Produce." Compare your actual emissions to the limits set for Permits by Rule.





## Appendix C: TNRCC Regional Offices

### 1 – AMARILLO

Regional Director - Brad Jones  
3918 Canyon Dr.  
Amarillo, TX 79109-4933  
806/353-9251 FAX: 806/358-9545

#### Perryton Office

511 South Main  
Perryton, TX 79070  
806/435-8059 FAX: 806/434-8443

### 2 – LUBBOCK

Regional Director - Jim Estes  
4630 50th St., Ste. 600  
Lubbock, TX 79414-3520  
806/796-7092 FAX: 806/796-7107

### 3 – ABILENE

Regional Director - Winona Henry  
1977 Industrial Blvd.  
Abilene, TX 79602-7833  
915/698-9674 FAX: 915/692-5869

### 4 – DALLAS/FORT WORTH

Regional Director - Frank Espino  
2301 Gravel Dr.  
Fort Worth, TX 76118-6951  
817/588-5800 FAX: 817/588-5700

#### Stephenville (Confined Animal Feeding Operations)

580-D W. Lingleville Rd.  
Stephenville, TX 76401  
254/965-5624 or 800/687-7078

### 5 – TYLER

Regional Director - Leroy Biggers  
2916 Teague Dr.  
Tyler, TX 75701-3756  
903/535-5100 FAX: 903/595-1562

### 6 – EL PASO

Regional Director - Archie Clouse  
401 E. Franklin Ave., Ste. 560  
El Paso, TX 79901-1206  
915/834-4949 FAX: 915/834-4940

### 7 – MIDLAND

Regional Director - Jed Barker  
3300 North A St., Bldg. 4, Ste. 107  
Midland, TX 79705-5404  
915/570-1359 FAX: 915/570-4795

### 8 – SAN ANGELO

Regional Director - Ricky Anderson  
622 S. Oakes, Ste. K  
San Angelo, TX 76903-7013  
915/655-9479 FAX: 915/658-5431

### 9 – WACO

Regional Director - Anna Dunbar  
6801 Sanger Ave., Ste. 2500  
Waco, TX 76710-7826  
254/751-0335 FAX: 254/772-9241

### 10 – BEAUMONT

Regional Director - Georgie Volz  
3870 Eastex Fwy.  
Beaumont, TX 77703-1892  
409/898-3838 FAX: 409/892-2119

### 11 – AUSTIN

Regional Director - Patty Reeh  
1921 Cedar Bend Dr., Ste. 150  
Austin, TX 78758-5336  
512/339-2929 FAX: 512/339-3795

### 12 – HOUSTON

Regional Director (Acting) -  
Donna Phillips  
5425 Polk Ave., Ste. H  
Houston, TX 77023-1486  
713/767-3500 FAX: 713/767-3520

### 13 – SAN ANTONIO

Regional Director - Richard Garcia  
14250 Judson Rd.  
San Antonio, TX 78233-4480  
210/490-3096 FAX: 210/545-4329

#### South Texas Watermaster Office

210/490-3096 FAX: 210/545-4329  
1-800/733-2733

### 14 – CORPUS CHRISTI

Regional Director - Buddy Stanley  
6300 Ocean Dr., Ste. 1200  
Corpus Christi, TX 78412-5503  
361/825-3100 FAX: 361/825-3101

### 15 – HARLINGEN

Regional Director - Tony Franco  
1804 West Jefferson Ave.  
Harlingen, TX 78550-5247  
956/425-6010 FAX: 956/412-5059

#### Rio Grande Watermaster Office

956/425-6010 FAX: 956/412-5059

#### Eagle Pass Office

1152 Ferry St., Ste. H  
Eagle Pass, TX 78852  
830/773-5059 FAX: 830/773-4103

### 16 – LAREDO

Regional Director - Gerardo J. Pinzon  
1403 Seymour, Ste. 2  
Laredo, TX 78040-8752  
956/791-6611 FAX: 956/791-6716



**Region 1 - Amarillo, 806/353-9251**

Armstrong, Briscoe, Carson, Castro, Childress, Collingsworth, Dallam, Deaf Smith, Donley, Gray, Hall, Hansford, Hartley, Hemphill, Hutchinson, Lipscomb, Moore, Ochiltree, Oldham, Parmer, Potter, Randall, Roberts, Sherman, Swisher, Wheeler

**Region 2 - Lubbock, 806/796-7092**

Bailey, Cochran, Crosby, Dickens Floyd, Garza, Hale, Hockley, King, Lamb, Lubbock, Lynn, Motley, Terry, Yoakum

**Region 3 - Abilene, 915/698-9674**

Archer, Baylor, Brown, Callahan, Clay, Coleman, Comanche, Cottle, Eastland, Fisher, Foard, Hardeman, Haskell, Jack, Jones, Kent, Knox, Mitchell, Montague, Nolan, Runnels, Scurry, Shackelford, Stephens, Stone-wall, Taylor, Throckmorton, Wichita, Wilbarger, Young

**Region 4 - Dallas-Ft. Worth, 817/588-5800**

Collin, Cooke, Dallas, Denton, Ellis, Erath, Fannin, Grayson Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, Tarrant, Wise

**Region 5 - Tyler, 903/535-5100**

Anderson, Bowie, Camp, Cherokee, Cass, Delta, Franklin, Gregg, Harrison, Henderson, Hopkins, Lamar, Marion, Morris, Panola, Rains, Red River, Rusk, Smith, Titus, Upshur, Van Zandt, Wood

**Region 6 - El Paso, 915/834-4949**

Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, Presidio

**Region 7 - Midland, 915/570-1359**

Andrews, Borden, Crane, Dawson, Ector, Gaines, Glasscock, Howard, Loving, Martin, Midland, Pecos, Reeves, Terrell, Upton, Ward, Winkler

**Region 8 - San Angelo, 915/655-9479**

Coke, Concho, Crockett, Irion, Kimble, Ma-son, McCulloch, Menard, Reagan, Schleicher, Sterling, Sutton, Tom Green

**Region 9 - Waco, 254/751-0335**

Bell, Bosque, Brazos, Burleson, Coryell, Falls, Free-stone, Grimes, Hamilton, Hill, Limestone, Lampasas, Leon, Madison, McLennan, Milam, Mills, Robertson, San Saba, Washington

**Region 10 - Beaumont, 409/898-3838**

Angelina, Hardin, Houston, Jasper, Jefferson, Nacogdoches, Newton, Orange, Polk, Sabine, San Augustine, San Jacinto, Shelby, Trinity, Tyler

**Region 11 - Austin, 512/339-2929**

Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Llano, Travis, Williamson

**Region 12 - Houston, 713/767-3500**

Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, Wharton

**Region 13 - San Antonio, 210/490-3096**

Atascosa, Bandera, Bexar, Comal, Edwards, Frio, Gillespie, Guadalupe, Karnes, Kendall, Kerr, Medina, Real, Uvalde, Wilson

**Region 14 - Corpus Christi, 361/825-3100**

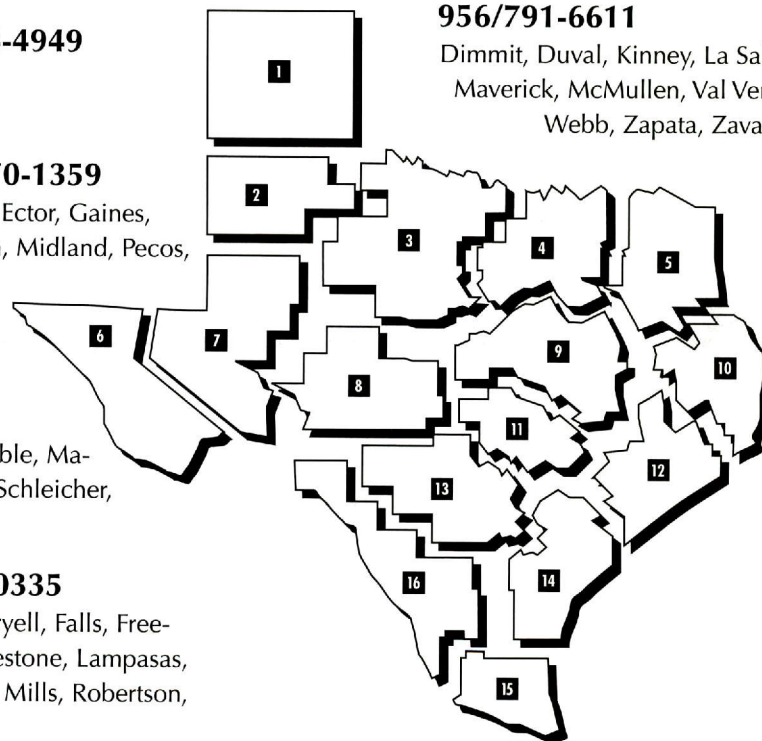
Aransas, Bee, Calhoun, De Witt, Goliad, Gonzales, Jackson, Jim Wells, Kleberg, Lavaca, Live Oak, Nueces, Refugio, San Patricio, Victoria

**Region 15 - Harlingen, 956/425-6010**

Brooks, Cameron, Hidalgo, Jim Hogg, Kenedy, Starr, Willacy

**Region 16 - Laredo, 956/791-6611**

Dimmit, Duval, Kinney, La Salle, Maverick, McMullen, Val Verde, Webb, Zapata, Zavala









## Information Sources

### **For information on pollution prevention and waste reduction:**

Small Business and Environmental Assistance Division MC-112  
TNRCC  
P.O. Box 13087  
Austin TX 78711-3087  
512/239-3100

### **For environmental information aimed specifically at printers:**

On the Internet, go to <http://www.pneac.org/pneac.html> (the Printer's National Environmental Assistance Center—PNEAC).

You can also call the Printing & Imaging Association-MidAmerica at 214/630-8871. Or check out PIA-MidAmerica on the Internet at <http://www.piatexas.org>.

If you are located in southeastern Texas, you can call Printing Industries of the Gulf Coast, Inc., at 713/522-2046. Their Web page is [www.pigc.com](http://www.pigc.com).

### **To get TNRCC forms, rules, or publications mentioned in this booklet:**

- On the Internet go to <http://www.tnrcc.state.tx.us> and click on the link to "Rules," "Publications," or "Forms." Sometimes the form or publication you want may not be available over the Internet (for example, a form may be printed on multiple sheets of colored paper). In such cases, try the following ways to obtain a hard copy:
  - ▼ Fax an order to 512/239-4488, or order by voice at 512/239-0028. Try to give the number of the rule, publication, or form as well as title; this information will help the TNRCC get the correct item to you as quickly as possible.
  - ▼ Mail your order to TNRCC Publications, MC 195, P.O. Box 13087, Austin, TX 78711-3087.

### **For information on waste registration, record keeping, and reporting:**

TNRCC Registration and Reporting Section MC-129  
P.O. Box 13087  
Austin TX 78711-3087  
512/239-6833

Community Right-to-Know Reporting (TRI/Tier II/Emergency Planning)  
State Emergency Response Commission  
c/o Texas Department of Health  
Hazard Communication Branch  
1100 West 49th Street  
Austin TX 78756  
1-800-452-2791

### **For information on state occupational safety and health requirements:**

OSHCN  
Texas Workers Compensation Commission  
4000 South IH 35  
Southfield Building  
Austin TX 78704  
1-800-687-7080

### **For information about federal occupational safety requirements:**

*Consult your local telephone directory for an office nearest you, or contact:*  
Occupational Safety and Health Administration  
U.S. Department of Labor  
903 San Jacinto Blvd, Suite 319  
Austin TX 78701  
512/916-5783