ENVIRONMENTAL COMPLIANCE AND POLLUTION PREVENTION GUIDE for Small Quantity Generators

Revised March 2003

(Originally Published March 1998)

New York State Department of Environmental Conservation
Pollution Prevention Unit

George E. Pataki, Governor

Erin Crotty, Commissioner

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FOREWORD

In 1976, the United States Congress passed the Resource Conservation and Recovery Act (RCRA) to protect human health and the environment from damage resulting from improper handling of hazardous waste. This federal law sought to control the management of hazardous waste from its point of generation to its ultimate disposal, from cradle to grave.

Initially, the focus was on large companies which produced the greatest proportion of hazardous waste. Businesses producing less than 1000 kilograms (2,200 pounds) of hazardous waste per month were not required to comply with most of the requirements applicable to larger generators of hazardous waste.

Subsequently, attention focused on potential health and environmental problems which could result from mismanagement of a large number of Small Quantity Generators (SQG) of hazardous waste, those generating between 100 and 1000 kilograms of hazardous waste per month. In 1984, Congress passed amendments to RCRA which expanded the scope of the law to include Small Quantity Generators.

The United States Environmental Protection Agency (EPA), in response to the revised federal legislation, adopted regulations applicable to Small Quantity Generators in 1986. To comply with the regulations adopted by the EPA, New York State adopted its own regulations for Small Quantity Generators. All of the federal hazardous waste regulations are located in Title 40 of the Code of Federal Regulations (CFR), Parts 260 to 299. The New York State hazardous waste regulations can be found in 6 NYCRR Parts 370-374 and 376.

The original *Are You a Small Quantity Generator*? manual was developed in the mid to late 80's and was based on the EPA Small Quantity Generator Manual. The 1998 update expands upon the first version to include New York State air and water regulatory requirements and pollution prevention strategies that may be used to help meet, as well as go beyond, compliance. The 2003 update includes sections on 1) Petroleum and chemical bulk storage, 2) universal waste, 3) used electronics, and 4) manifest exemption.

Keep this manual at your place of business and refer to the different sections on hazardous waste, water, air, and pollution prevention, as you need them.

INTRODUCTION

This publication has been prepared by the Pollution Prevention Unit of the New York State Department of Environmental Conservation (DEC). It was developed in order to help small and medium-size businesses understand environmental requirements.

A small quantity generator (SQG) refers to any business, municipality, institution, or corporation that generates between 100 and 1,000 kilograms (220 and 2,200 pounds) of non-acute hazardous waste per month, and stores between 1,000 and 6,000 kilograms (13,200 pounds) at any time. This publication will discuss both the Small Quantity Generator and the Conditionally Exempt Small Quantity Generator (CESQG).

The Call Is Free
Call (800) 462-6553 if you have any questions about this manual.

Climbing disposal costs and liabilities associated with hazardous waste have changed views about waste control. Businesses in New York State and all over the world are concentrating their efforts on how to eliminate or minimize hazardous waste before it is generated. Many businesses are learning that **preventing waste is better than managing it**. Not only are businesses saving money by not generating wastes, but they are also helping the environment. Section III of this publication will discuss some pollution prevention methods.

As a small business, you should be familiar with the wastes you are generating and how to properly manage them. Many small businesses understand their day-to-day operations, but are often not familiar with what wastes are generated or how to properly manage them.

The Pollution Prevention Unit provides a wide range of technical assistance/public outreach in New York State. One way in which the Pollution Prevention Unit reaches out to small businesses is by developing industry-specific manuals that summarize air, water, solid and hazardous waste regulations as they pertain to that specific business sector. These manuals are called the *Environmental Compliance and Pollution Prevention Guides* and are complemented by the *Environmental Self-Assessment and Pollution Prevention Guides*. The Self-Assessment Guide is a checklist of items that will help your business determine if you are in compliance with environmental requirements as well as look for better pollution prevention methods to incorporate into your business. Other manuals that are now available include the following industry sectors:

- Vehicle Maintenance and Repair
- Degreasing and Parts Cleaning
- Metal Finishing
- Electronics and Computer
- College and Campuses
- Automobile Recyclers
- Food Processing
- Health Care
- Wood Furniture
- Dry Cleaners
- Printing
- Photo finishing
- X-ray Development

To obtain copies of these publications, you can call the Pollution Prevention Unit at (800) 462-6553 in New York State. Outside New York State call (518) 402-9469.

Section I - Regulations

Hazardous Waste Regulations

HOW TO IDENTIFY YOUR HAZARDOUS WASTE

State hazardous waste management regulations apply to most businesses that generate hazardous waste. To find out if these regulations apply to your business, you must first determine if you generate hazardous waste. Your waste may be hazardous if your solid waste is not excluded from regulation under 6 NYCRR 371.1(e)(2) and meets any of the following criteria:

1. **Listed Wastes** - A waste is hazardous if it is listed in Part 371 of the NYS Codes, Rules and Regulations (6 NYCRR). There are listed wastes so toxic or reactive in small quantities that they are strictly regulated. These wastes are called **Acutely Hazardous Wastes**. They include such wastes as used cyanide and strychnine compounds and certain pesticide wastes. Many dioxin-containing wastes are also considered acutely hazardous. Wastes marked with an asterisk in Table 2 on page 27 have been designated as acutely hazardous. If you generate more than 1 kilogram (2.2 pounds) of acutely hazardous waste in a month, or store more than 1 kilogram, you are subject to the regulations which apply to Large Quantity Generators.

2. **Characteristic Wastes** - If your waste is not listed in 6 NYCRR Part 371, it could still be considered a hazardous waste if it exhibits one or more of the following four characteristics:

Ignitability

It catches fire easily. Ignitable wastes include many organic solvents and some paint wastes and strong oxidizing agents. A liquid waste is ignitable if it has a flash point of less than 60°C (140°F). The waste code for ignitable wastes is D001.

Corrosivity

It dissolves metals and other materials, or burns the skin. Corrosive wastes include waste rust removers, waste acid or alkaline cleaning fluids and waste battery acid. Any liquid that has a pH of 2.0 or lower or a pH of 12.5 or higher is corrosive. The waste code for corrosive wastes is D002.

Reactivity

It undergoes violent chemical reaction spontaneously or reacts violently with air or water. Reactive wastes include those which can generate toxic gases or vapors. The waste code for reactive wastes is D003.

Toxicity

A waste sample is tested and analyzed, using the toxicity characteristic leaching procedure (TCLP). A waste fails the TCLP test if the limitations for one or all of the 40 substances that were tested has exceeded the allowable standard. This means that the waste tested contains high concentrations of heavy metals or organics. See appendix for a list of substances covered by the TCLP. Go to: http://www.wadsworth.org/labcert/elap/elap.html for a list of certified labs.

3. **Mixtures** - If your waste is a mixture of solid waste and a hazardous waste that is listed in 371.4 solely because it exhibits one or more of the characteristics of hazardous waste (on page 2) it is a hazardous waste, unless the waste no longer exhibits any of the characteristics of A hazardous waste. Mixing a hazardous waste with any material is regulated and may require a hazardous waste Treatment, Storage or Disposal Facility (TSDF) permit unless the mixing process meets an exemption in 373-1.1(d)(1). Also, even if the mixture does not exhibit any hazardous waste characteristics, the waste may still be subject to the Land Disposal Restrictions found in 6 NYCRR Part 376.

4. **Used Oil** - Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in 6 NYCRR Section 371.4. Persons may rebut this presumption to DEC. This means that when you send your used oil for recycling, and it contains 1000 ppm total halogens when tested, it may have the potential to contain solvent. If your used oil contains a hazardous solvent the whole mixture could be considered a hazardous waste, therefore, would not be regulated under the used oil regulations.

   Remember
   If your used oil is recycled or burned for energy recovery, then you can manage it under NYS solid waste regulations.

   There are other circumstances in which a used oil may be regulated as a hazardous waste. If the generator knows that the listed hazardous wastes were added to the used oil, then the used oil mixture is a hazardous waste regardless of the total halogens concentration, unless all such listed wastes are known to have come from CESQGs. Furthermore, the used oil mixture regulations in 6 NYCRR 374-2.2(b) describe the status of other types of used oil mixtures. Persons who are not familiar with the used oil regulations and require assistance in determining whether a mixture is a hazardous waste or a used oil should contact the Technical Determination Section at (518) 402-8633.

Another way that you can determine if your waste is hazardous is by applying knowledge. (You must have a basis, analytical results, MSDS, etc.) If you are certain that a specific waste that you generate is not a hazardous waste because of your knowledge about this waste, then you can dispose of this waste as a solid waste. However, it is your responsibility to make this determination, and you will be liable for any illegal disposal of hazardous waste.

COUNTING YOUR HAZARDOUS WASTE

If you generate hazardous waste, it is your responsibility as a generator to determine how much you generate per month as well as the name and type (acute or non-acute) of waste you generate. Once

TABLE 1
Typical Businesses That Generate Hazardous Waste
(For descriptions of the types of wastes see Section II)

Typical Hazardous Waste Generated by Small Businesses			
BUSINESS	**HOW GENERATED**	**TYPES OF WASTE**	**WASTE CODES**
Vehicle Maintenance and Dismantling	Degreasing, rust removal, paint preparation, spray guns, tank clean out, vehicle servicing, vehicle recycling	Acids/bases, solvents, ignitables, toxics, paints, batteries, heavy metals, mercury	D001, D002, D006, D008, D009, F001-F005
Dry Cleaning	Commercial dry cleaning processes	Spent filter cartridges, cooked powder residue, waste water	D001, D039, F002
Printing	Plate preparation, stencil preparation for screen printing, photo processing, printing, cleanup	Acids/bases, heavy metals, solvents, ink, toxic wastes	D002, D006, D008, F001-F005
Metal Finishing Electronics and Computer Industry	Degreasing, cleaning, pickling, etching, polishing, plating, coating	Acids/bases, industrial wastewater, solvents, heavy metals, baths, cyanides, sludges, ignitables, reactives	F007, F008, F009, F011 F001-F005, F006, F019
Surface Coating	Degreasing, rust removal, paint preparation, brush cleaning, spray booth, spray guns, paint removal,	Acids/bases, ignitables paint waste, solvents, spent filters, toxic wastes	D001, D002, D006, D008, F001-F005
Degreasing	Equipment cleaning, rust removal, paint preparation	Acids/bases, ignitables solvents, still bottoms	D001, D002, D006, D008, F001-F005,
Photo Finishing	Photo processing	Acids/bases, silver, wash water	D001, D002, D003, F001-F005
Pesticide Users	Pesticide application and cleanup	Unused pesticides, rinse water, empty containers	D001, F001-F005, U129, U136, P094, P123
Educational Institutions	Automobile servicing, metal/woodworking, printing, cleanup, photo processing, lab wastes	Acids/bases, paint wastes, solvents, ignitables, toxics, reactives, inks	D001, D002, F001-F005

you have identified your waste, you must assign the correct waste code for each waste. Some waste codes are listed in Table 1 and in Section II. The complete list of waste codes can be found in 6 NYCRR Part 371.

To determine the quantity of hazardous waste you generate per month, you must identify which wastes must be counted and which wastes that can be excluded from your monthly total.

Do Count

You count all quantities of "Listed" and "Characteristic" hazardous wastes that you:

- Accumulated on-site for any period of time prior to disposal or recycling.
- Packaged and transported off-site.
- Placed directly in a regulated treatment or disposal unit at your place of business.
- Generated as still bottoms or sludges and removed from product storage tanks.

Don't Count

You do not have to count wastes that:

- Are specifically exempted from counting. Examples include spent lead-acid batteries that will be sent off site for reclamation, scrap metal that will be recycled, used electronics that are recycled, used oil managed under 6 NYCRR Part 360-14, and universal wastes that include NiCd batteries, mercury thermostats, fluorescent lamps, and certain pesticides.
- May be left in the bottom of containers that have been completely emptied through conventional means, such as pouring or pumping. Containers that held an acute hazardous waste must be thoroughly cleaned.
- Are left as residue in the bottom of product storage tanks, if the residue is not removed from the product tank.

To help you identify some of the waste streams common to your business, see Table 1 on page 4 which lists typical hazardous waste generated by small businesses. If your waste is hazardous, you will need to manage it according to state regulations.

Once you have determined that you generate hazardous waste and you have some idea of how to count your wastes, you need to determine what category of hazardous waste generator applies to your business. Your requirements will differ for each category.

Know Your Business

Many small businesses understand their day-to-day operations, but they may not be familiar with the wastes that they generate or how to properly manage them. By reading this manual, you will have a better understanding of how your business can stay in compliance with DEC regulations. In addition, you will have a better overview of how to manage your wastes. For additional information, see Section IV for a list of technical assistance providers.

The three categories of hazardous waste generators are: Conditionally Exempt Small Quantity Generator (CESQG), Small Quantity Generator (SQG), and Large Quantity Generator (LQG).

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS

This category of hazardous waste generators will have the fewest requirements. By using good waste management practices and a little extra effort, your business can generate less waste which could put you in this category of waste generators. In order to be a CESQG, you must meet **all** of the following conditions:

- Generate no more than 100 kilograms (220 pounds) per month of listed and/or characteristic hazardous waste.
- Generate no more than 1 kilogram (2.2 pounds) per month of acutely hazardous waste.
- Store no more than 1000 kilograms (2,200 pounds) of listed and/or characteristic hazardous waste.
- Store no more than 1 kilogram (2.2 pounds) of acutely hazardous waste.

One 55 gallon drum = about 200 kilograms
1000 kilograms = 2200 pounds ~ 275 gals.
100 kilograms = 220 pounds ~ 28 gals.

If your business is classified as a conditionally exempt small quantity generator, you:

1. must identify all hazardous waste that you generate. You are responsible for knowing which of your wastes would be classified as hazardous and what the correct waste codes are for the hazardous wastes.

2. cannot store more than 1000 kg of hazardous waste on-site at any time, <u>but there are no time limits for storage</u>.

3. must ensure delivery of your hazardous waste to a DEC-approved facility that is one of the following:

   - A state or federally regulated hazardous waste management treatment, storage, or disposal facility. Part 364 haulers can also deliver to these facilities
   - You can deliver the waste yourself to any department-approved facility authorized to manage municipal or industrial solid waste. For example, some landfills will take dry paints and still bottoms. Municipal incinerators may be able to take waste materials such as paint thinners, and some solvent formulations. You must obtain prior approval from these facilities.
   - A facility that uses, reuses, or legitimately recycles the waste. If you are recycling or treating the waste yourself, please call DEC at (518) 402-8633 if you need more information on hazardous waste treatment or recycling.
   - A permitted household hazardous waste collection facility that accepts CESQG waste. (Check with your municipality or call (800) 462-6553.)
   - A universal waste handler or destination facility subject to the universal waste requirements of 40 CFR Part 273. (Universal wastes are wastes such as certain batteries, recalled or collected pesticides, mercury-containing thermostats, or fluorescent lamps and ballasts).

Conditionally exempt small quantity generators have two options for getting their wastes to a disposal facility or a recycler:

1. Your company can use a 6 NYCRR Part 364 Permitted Hazardous Waste Hauler.

2. Your company can legally haul the waste itself to an approved facility located within New York State. Some localities have additional requirements. You can haul up to 100 kilograms (220 pounds) of hazardous waste per month without having to obtain a NYS Part 364 permit.

> **Warning**
> It is both illegal and dangerous to put hazardous waste in the trash dumpster. This practice can harm the people who unknowingly handle the waste.

SMALL QUANTITY GENERATORS

If you are a small quantity generator, you must meet **all** of the following conditions:

- Generate between 100 and 1000 kilograms per month of hazardous waste.
- Generate no more than 1 kilogram per month of acutely hazardous waste.
- Store up to 6000 kilograms (13,200 pounds) of hazardous waste.
- Store no more than 1 kilogram of acutely hazardous waste.

Small Quantity Generators must comply with all of the following requirements:

- Storage requirements
- Emergency Preparedness and Response
- EPA Identification Number
- Manifest
- Use a licensed transporter
- Have waste sent only to an authorized treatment, storage, or disposal facility
- Land disposal restrictions

Storage Requirements

Small Quantity Generators may store up to 6000 kilograms (13,200 pounds) of listed and/or characteristic hazardous waste on-site for up to 180 days, or up to 270 days if the waste must be shipped to a treatment, storage, or disposal facility that is located over 200 miles away. Small quantity generators may store no more than 1 kilogram (2.2 pounds) of acutely hazardous waste on-site for any length of time.

If a Small Quantity Generator exceeds the 180 or 270 day limit for accumulating waste, he may request an extension. Extensions of up to 30 days may be granted by DEC if the waste must remain on-site due to unforeseen, temporary, or uncontrollable circumstances.

Small Quantity Generators who store hazardous waste on-site must follow certain common sense rules to protect human health and the environment and to reduce the likelihood of damages or injuries caused by leaks or spills of hazardous wastes.

Small quantity generators must comply with the 180-day storage requirements while large quantity generators must comply with the 90-day storage requirements. There is no time limit that conditionally exempt small quantity generators can store their hazardous waste as long as they do not accumulate more than 1000 kg (2200 lbs).

If you store hazardous waste in containers, you must:

- Clearly mark each container with the words "HAZARDOUS WASTE" and other words that will identify the contents. Also, mark the date on the container when you first started collecting waste in that container.
- Keep containers in good condition, handle them carefully, and replace any leaking ones.
- Never store hazardous waste in containers that could rupture, leak, corrode, or fail in some other way.
- Keep containers closed except when you fill or empty them.
- Inspect containers for leaks and corrosion every week.
- Separate and protect reactive or ignitable waste from sources of ignition or reaction.
- Ensure that the waste being placed in a container will not react with the container itself or with any residue of waste previously held in the container.
- Never store wastes in the same container that could react to cause fires, leaks, or other releases.
- Separate by a dike, berm, wall or other device containers of waste which are incompatible with other containers of waste stored nearby.
- Have secondary containment if you are located over a sole source aquifer and store more than 185 gallons (about 700 kilograms) of liquid hazardous waste.

If you store waste in tanks, you must make sure the following requirements are met:

- Never store hazardous waste in a tank if it may cause rupture, leaks, corrosion or otherwise cause the tank to fail.
- Uncovered tanks must be operated to ensure at least 60 centimeters (two feet) of space at the top of the tank, unless the tank is equipped with a containment structure, a drainage control system, or a diversion structure with a capacity that equals or exceeds the volume of the top 60 centimeters of the tank.
- Where hazardous waste is continuously fed into a tank, the tank must be equipped with a means to stop the inflow, such as a waste feed cut-off system or a bypass system to a stand-by tank.
- Discharge control equipment must be inspected once each operating day to ensure that it is in good working order.
- Data from monitoring equipment must be gathered once each operating day to ensure that the tank is being operated according to its design.
- To ensure compliance of uncovered tanks, the level of waste in the tank must be inspected once each operating day.
- The tank construction materials must be inspected at least once a week to detect corrosion or leaking of fixtures or seams.
- The construction material of discharge confinement structures and the area immediately surrounding discharge confinement structures must be inspected weekly to detect erosion or obvious signs of leakage.
- Incompatible wastes must not be stored in the same tank.
- Hazardous waste must not be placed in an unwashed tank which previously held an incompatible waste or material.
- If over a sole source aquifer, have secondary containment if you store more than 110 gallons (418 liters) of

liquid hazardous waste in underground storage tanks or more than 185 gallons (703 liters) of liquid hazardous waste in above-ground storage tanks.

Satellite Accumulation Areas

A generator may accumulate up to 55 gallons of hazardous waste, or 1 quart of acutely hazardous waste, in containers at or near any point of generation which is under the control of the operator of the process generating the waste. You can use a satellite accumulation area without obtaining a permit or interim status, or without complying with the 180-day storage requirements provided the generator:

- complies with 6 NYCRR Section 373-3.9(b)-(d);
- marks the containers with the words "Hazardous Waste";
- label the containers to identify the contents, (i.e., flammable, reactive); and
- dates the container when full.

If a generator accumulates more than 55 gallons of hazardous waste in a satellite accumulation area, within 3 days the generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

In addition, the quantities stored in satellite accumulation areas need to be counted against the maximum storage quantities. Example: If you are a conditionally exempt small quantity generator and accumulated 2,150 pounds in your hazardous waste storage area, but have 55 gallons of hazardous waste accumulated in your satellite area, you have just exceeded your storage limits and will be re-classified to a small quantity generator. Practicing good waste management could have prevented this.

Emergency Preparedness and Response

Small Quantity Generators must comply with the following emergency requirements:

- At least one employee must be designated as the Emergency Coordinator who must be on call or on the premises at all times to coordinate all emergency response measures.
- The facility must post the following information next to all telephones in the work place:

  ❑ the name and telephone number of the emergency coordinator or his/her equal;

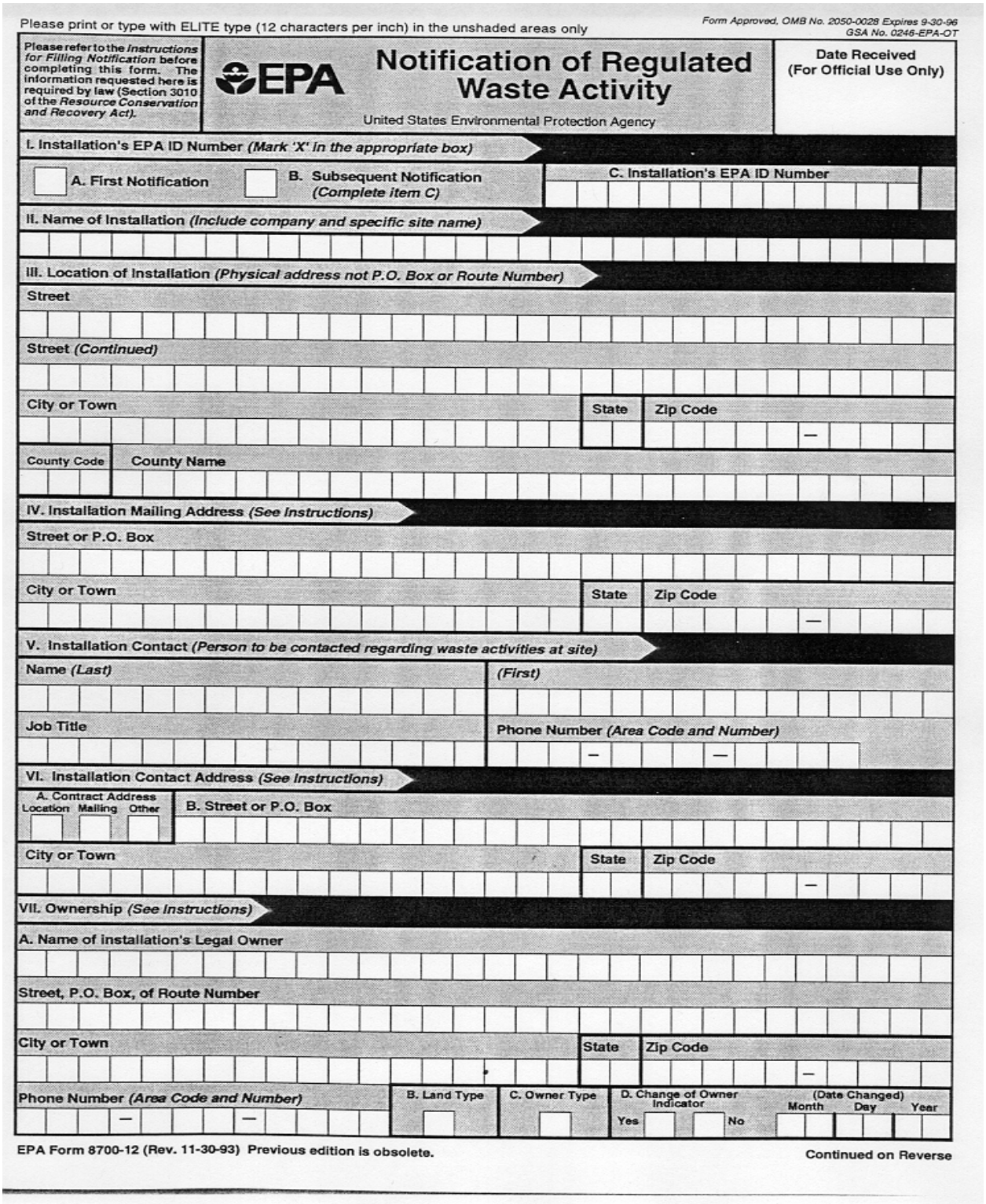
  ❑ the location of fire extinguishers and spill control material, and if present, the fire alarm; and

  ❑ the telephone number of the fire department, unless the facility has a direct alarm.

- Employees must be familiar with proper waste handling and emergency response procedures relevant to their responsibilities during normal facility operation and emergencies.
- In the event of a fire, the emergency coordinator or his designee must call the fire department or attempt to extinguish the fire with a fire extinguisher.
- In the event of a spill, the emergency coordinator or his designee must attempt to contain the spill and, as soon as is practicable, to clean up any resultant contamination.

- In the event of an emergency threatening public health outside the facility or when the generator is aware that a spill has reached surface water, the generator must

Figure 1



Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

Please refer to the *Instructions for Filling Notification* before completing this form. The information requested here is required by law (Section 3010 of the *Resource Conservation and Recovery Act*).

EPA

Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received (For Official Use Only)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

☐ A. First Notification ☐ B. Subsequent Notification *(Complete item C)*

C. Installation's EPA ID Number

II. Name of Installation *(Include company and specific site name)*

III. Location of Installation *(Physical address not P.O. Box or Route Number)*

Street

Street *(Continued)*

City or Town | State | Zip Code

County Code | County Name

IV. Installation Mailing Address *(See Instructions)*

Street or P.O. Box

City or Town | State | Zip Code

V. Installation Contact *(Person to be contacted regarding waste activities at site)*

Name *(Last)* | *(First)*

Job Title | Phone Number *(Area Code and Number)*

VI. Installation Contact Address *(See Instructions)*

A. Contract Address Location ☐ Mailing ☐ Other ☐ | B. Street or P.O. Box

City or Town | State | Zip Code

VII. Ownership *(See Instructions)*

A. Name of Installation's Legal Owner

Street, P.O. Box, of Route Number

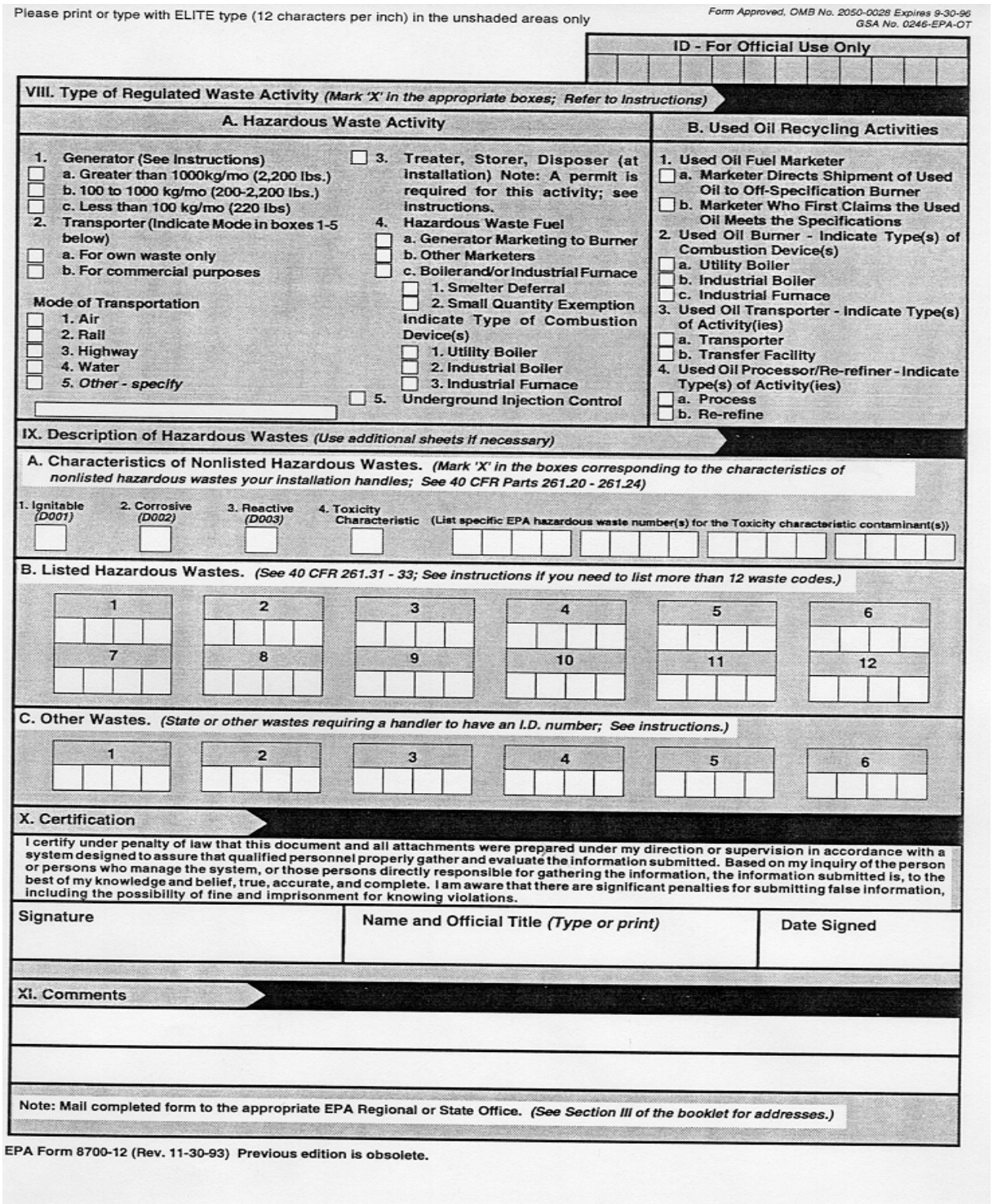
City or Town | State | Zip Code

Phone Number *(Area Code and Number)* | B. Land Type | C. Owner Type | D. Change of Owner Indicator Yes ☐ No ☐ | (Date Changed) Month Day Year

EPA Form 8700-12 (Rev. 11-30-93) Previous edition is obsolete.

Continued on Reverse

Figure 1 (cont'd)



Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0028 Expires 9-30-96
GSA No. 0246-EPA-OT

ID - For Official Use Only

VIII. Type of Regulated Waste Activity *(Mark 'X' in the appropriate boxes; Refer to Instructions)*

A. Hazardous Waste Activity

1. Generator (See Instructions)
   - ☐ a. Greater than 1000kg/mo (2,200 lbs.)
   - ☐ b. 100 to 1000 kg/mo (200-2,200 lbs.)
   - ☐ c. Less than 100 kg/mo (220 lbs)
2. Transporter (Indicate Mode in boxes 1-5 below)
   - ☐ a. For own waste only
   - ☐ b. For commercial purposes

Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ *5. Other - specify*

☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.

4. Hazardous Waste Fuel
   - ☐ a. Generator Marketing to Burner
   - ☐ b. Other Marketers
   - ☐ c. Boiler and/or Industrial Furnace
     - ☐ 1. Smelter Deferral
     - ☐ 2. Small Quantity Exemption

Indicate Type of Combustion Device(s)
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace

☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Fuel Marketer
   - ☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
   - ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
   - ☐ a. Utility Boiler
   - ☐ b. Industrial Boiler
   - ☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Activity(ies)
   - ☐ a. Transporter
   - ☐ b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
   - ☐ a. Process
   - ☐ b. Re-refine

IX. Description of Hazardous Wastes *(Use additional sheets if necessary)*

A. Characteristics of Nonlisted Hazardous Wastes. *(Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)*

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic	(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))
☐	☐	☐	☐	

B. Listed Hazardous Wastes. *(See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)*

1	2	3	4	5	6
7	8	9	10	11	12

C. Other Wastes. *(State or other wastes requiring a handler to have an I.D. number; See instructions.)*

1	2	3	4	5	6

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title *(Type or print)*	Date Signed

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. *(See Section III of the booklet for addresses.)*

EPA Form 8700-12 (Rev. 11-30-93) Previous edition is obsolete.

immediately notify the National Response Center at (800) 424-8802 and DEC at (518) 457-7362 with the following information:

- the name, address and EPA identification number of the generator;
- the date, time and type of incident;
- the quantity and type of hazardous waste involved;
- the extent of injuries, if any; and
- the estimated quantity and disposition of recovered materials.

EPA Identification Number

If your business generates more than 100 kilograms (220 pounds) of non-acute hazardous waste in any calendar month, you

will need to obtain an EPA Identification Number. Transporters and facilities that store, treat or dispose of regulated quantities of hazardous waste must also have EPA Identification Numbers. These twelve-character identification numbers uniquely identify hazardous waste generators, transporters, and treatment, storage, or disposal facilities (TSDFs). They allow tracking of hazardous waste from its point of origin to its ultimate point of disposal.

To obtain your EPA Identification Number, call the EPA Region II Office at (212) 637-4106, and ask for a copy of EPA Form 8700-12, "Notification of Regulated Waste Activity." You will be sent a booklet containing the two-page form and instructions for filling it out. Figure 1 on pages 10 and 11 is a sample copy of the notification form to show you the kinds of information required.

To complete item IX of the form, you need to identify your hazardous waste codes. Section II on page 24 contains some common hazardous waste codes.

Complete one copy of the form for each of your plant sites or business locations where you generate or handle hazardous wastes. Each site or location will receive its own EPA Identification Number.

Lastly, make sure your form is filled out completely and correctly and sign the certification in item X. Submit the form to the EPA Region II office. You will be assigned an EPA Identification Number unique to the site identified on your form. Use this number on all hazardous waste shipping papers. You should notify EPA at the address given below if the plant site or business location is moved or if the name of the facility changes.

EPA Region II Office
DEPP
290 Broadway
New York, NY 10007-1866
(212) 637-4106
Attn: Jack Hoyt

The Manifest System

The hazardous waste manifest is a multi-copy shipping document that you must fill out and use to accompany your hazardous waste shipments.

All generators, except conditionally exempt generators, must manifest their hazardous waste shipments. The manifest form is designed so that shipments of hazardous waste can be tracked from their point of generation to their final point of disposal.

Figure 2

NYG 0848016

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

HAZARDOUS WASTE MANIFEST
P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple. (Rev. 3/97)

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. | Manifest Doc. No. | 2. Page 1 of | Information within heavy bold line is not required by Federal Law.

GENERATOR

3. Generator's Name and Mailing Address

4. Generator's Telephone Number ( )

A. NYG 0848016
B. Generator's ID

5. Transporter 1 (Company Name) | 6. US EPA ID Number
C. State Transporter's ID
D. Transporter's Telephone ( )

7 Transporter 2 (Company Name) | 8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address | 10. US EPA ID Number
G. State Facility ID
H. Facility Telephone ( )

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.					EPA / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a | c
b | d

K. Handling Codes for Wastes Listed Above
a | c
b | d

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small generator, I have made a good faith effort to minimize my waste and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Mo. | Day | Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Mo. | Day | Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Mo. | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Mo. | Day | Year

The hazardous waste generator, the transporter and the designated treatment or disposal facility must each sign this document and keep a copy. The operator of the designated facility must also send a copy back to the generator, so that the generator can be sure that the shipment has arrived. The generator must keep this copy, which bears the signatures of the transporter and the designated facility operator, on file for three years.

The generator is responsible for ensuring the hazardous waste manifest is properly filled out, and then the following steps must be taken:

- The transporter signs and dates the manifest, giving copies 3, 4 and 8 back to the generator. The transporter keeps copies 1, 2, 5, 6 and 7 and takes them to the designated waste handling facility.
- The representative of the designated facility must verify acceptance of the waste shipment and sign and date the multiple copies of the manifest. The facility keeps copy 6 for its own records. Copy 7 then goes back to the transporter, copy 1 goes to the state where the disposal facility is located, copy 2 goes to the state where the waste was generated and copy 5 gets mailed back to the generator.
- The generator mails copy 3 to the state in which the designated disposal or processing facility is located, and copy 4 to the generator's home state.
- The generator must keep copy 8 and a fully signed copy 5 on file for three years.

If the generator does not receive a signed copy from the designated waste management facility showing acceptance of the waste within 35 days of the date of shipment, the generator must contact the transporter and/or the disposal facility to find out why.

It is important to remember that just because you have shipped the hazardous waste off your site and it is no longer in your possession, your liability has not ended. You are potentially liable for any mismanagement of your hazardous waste.

The manifest will help you to track your waste during shipment and make sure it arrives at the proper destination.

If you generate hazardous waste in New York State and the waste is sent to a New York State- approved facility, then you must use a NYS Hazardous Waste Manifest form. (Remember as we stated previously: conditionally exempt small quantity generators (CESQGs) are not required to fill out a manifest.) If the state to which you are shipping your waste has its own manifest form, you must use that state's manifest form. If the state to which you are shipping your waste does not have its own manifest, you must use the manifest of the state in which your waste was generated.

New York State has its own manifest form. A sample NYS Hazardous Waste Manifest form is presented in Figure 2, on page 13. When you sign the certification in item 16 you are personally confirming that:

- The manifest is complete and accurately describes the shipment.
- The shipment is ready for transport.
- You have considered whether your

waste management arrangements are the best to reduce the amount and hazardous nature of your wastes.

If you are a generator in New York State or ship to an approved facility in NYS, you may obtain NYS manifest forms from your regional DEC office. See Section IV for a complete list of DEC offices. In addition, you can obtain manifest forms from the Central Office of the DEC by calling (518) 402-8730.

Licensed Transporter

Small Quantity Generators in NYS may accumulate up to 6000 kilograms (13,200 pounds) of hazardous waste for up to 180 days, or for up to 270 days if they must ship to a treatment, storage, or disposal facility (TSDF) located over 200 miles away. Transporters of hazardous waste in New York State must possess Part 364 Waste Transporter Permits and may only transport hazardous wastes to TSDFs that are authorized to accept hazardous waste. Since generators of hazardous waste may be held responsible for mismanagement of their waste after it has left their premises, it is advisable for generators to ensure that they use only duly authorized transporters and TSDFs.

Keep In Mind
Small Quantity Generators can not transport their own waste.

If you want to find out if your transporter is permitted, contact the Waste Transporter Permit Section of the DEC at (518) 402-8705. Section personnel will be able to provide you with computer generated listings of currently permitted waste transporters and the types of waste they are authorized to transport.

You should contact the hauler and the TSDF to verify that they have EPA Identification Numbers and that they can and will handle your waste. Also, make sure that they have current permits, adequate insurance, and that the hauler's vehicles are in good condition. Choosing a transporter and a TSDF may take some time, therefore try to begin your search well ahead of the time you will need to ship your waste.

When you prepare hazardous waste for shipment, you must put the waste in containers acceptable for transportation. Make sure the containers are properly labeled and in compliance with applicable NYSDOT regulations. To determine labeling requirements for your wastes, contact DEC.

Part 364 transporters must meet certain conditions in order to receive a DEC permit, which is renewed annually. For instance, they must maintain a certain amount of liability insurance to cover cleanup of spills or accidents, and each permit specifies the types of waste that can be hauled and where the wastes may be hauled.

Many businesses use brokers to arrange the details of transportation and disposal of their hazardous waste. The broker may be independent; in other cases, the transporter or the TSDF acts as a broker. Using a broker may facilitate waste disposal. However, as the generator of the waste, you retain responsibility for its transportation and treatment or disposal. When dealing with brokers, it remains your responsibility to ensure that:

- You have written communication from the ultimate designated treatment, storage or disposal facility for the

particular wastes being offered for shipment stating that the facility is authorized and has the capacity to accept the hazardous waste set forth on the manifest and that the facility will assure that the ultimate disposal method is followed;

- You have written communication that the designated transporter is authorized to deliver the waste to the facility on the manifest;
- Copies of the manifest are distributed as shown on the New York State manifest form. When an out-of-state manifest does not have sufficient sheets for full notification of shipment and receipt, make additional copies; and
- Your shipment papers contain the notifications and certifications required by the federal and state land disposal restrictions. (See page 16 - land disposal restrictions)
- An independent broker may not take physical possession of the waste.

In order to ensure that your waste is handled properly, you should also consider requesting the following information or taking the following steps:

- Request copies of all waste analyses done on samples of your wastes.
- Request a certificate of treatment or disposal for the waste from the ultimate disposal facility; this should be consistent with the method shown on the manifest or the exception report.
- Call the DEC office in your region (see Section IV) on a periodic basis to verify that the transporter and treatment or disposal facility have the proper waste handling permits.
- When the hauler arrives at your site to pick up your wastes, ask to see a copy of his or her Part 364 permit. Licensed 364 haulers must keep a copy of the permit in each truck. Look for the following information on the permit, which should be consistent with the information on the manifest:

  ❑ the license plate number of the vehicle;
  ❑ the expiration date of the permit;
  ❑ the types of wastes that can be hauled;
  ❑ the facilities to which the hauler can take your waste.

- Check with the Better Business Bureau or Chamber of Commerce to see if there are records of complaints or problems against the hauler or treatment facility. Your colleagues or associations may also have information about haulers or treatment facilities in your area.

Treatment, Storage, and Disposal Facility (TSDF)

Small quantity generators can only send their waste to a regulated TSDF or recycler. All TSDFs and recyclers must have EPA identification numbers.

Land Disposal Restrictions

New York State has adopted Land Disposal Restrictions (LDRs) that Congress passed into law in 1984. The LDR program requires that the waste is treated to reduce the hazardous constituents to levels set by EPA, or that the waste is treated using a specific technology before being disposed to land. Most SQGs will probably have their designated treatment, storage, or disposal facility be responsible for this treatment.

Some examples of wastes that must be treated include used solvents, metal wastes, cyanide-containing wastes, and other types of hazardous wastes.

Since November 1988, unless specifically exempt or excluded, small quantity generators that generate more than 100 kilograms of hazardous waste in any calendar month have been affected by the federal LDR requirements. If you choose to treat or recycle your waste yourself to meet LDR treatment standards, you must meet requirements for a waste analysis plan. Call DEC before you treat any hazardous waste.

Notification/Certification to Treatment, Storage or Disposal Facility

The notification must include the hazardous waste code for each waste, any subcategories, the manifest number, the treatability group (wastewater or non-wastewater), and the regulated hazardous constituents or underlying hazardous constituents of certain wastes associated with the waste shipment. The certification must include the same information as a notification, as well as a signed certification.

Record Keeping

Maintain the following for at least three years:

- Waste analysis records.
- Notifications/certifications to treatment, storage and disposal facilities, waste analysis data, if available, tolling agreement (reclamation exemption) and any other documents associated with your waste management.
- Any constituent monitoring.

A laboratory analysis is not necessary if the contents are known, and waste can be classified by a generator's knowledge. (Generator's knowledge must be verifiable). An analysis may be necessary initially, but not every time waste is generated.

If a broker, hauler or facility handles your paperwork for you, use the above section as a checklist to ensure that all LDR requirements are met. Keep copies of all paperwork that you sign.

EXEMPTIONS

There are certain exclusions or reclamation exemptions that apply to certain hazardous wastes that are generated.

Reclamation Exemption

Materials that are regenerated or processed to recover a useable product may be excluded from being a hazardous waste. Hazardous waste that are destined for reclamation, generally do not need to be counted unless they qualify for a specific inclusion.

If you are a SQG, you do not have to manifest wastes that are designated for reclamation if you enter into a contractual agreement with the reclaimer and abide by the following:

- The type of waste and frequency of shipments are specified by the generator and reclaimer.
- The vehicle used in transporting the waste is owned and operated by the reclaimer.
- The reclaimer complies with 6 NYCRR Part 364 waste transporter requirements.
- The generator records the hazardous waste codes, the quantities shipped, and the shipment dates.

- The generator keeps a copy of the reclamation agreement for at least three years after termination or expiration of the agreement.

Transporters servicing small quantity generators need not manifest their shipments, provided that the transporter also abides by the five requirements listed above. In addition, the transporter must carry these records when hauling waste to the reclamation facility as well as record the generator's EPA Identification Number, if required.

Similarly, this exemption extends to TSDFs accepting waste for reclamation. TSDFs may accept from SQGs waste not manifested for reclamation if the waste is being reclaimed in accordance with a contractual agreement. The TSDF must record the name, address and EPA Identification Number of the generator along with the quantities, waste types, and shipment dates.

The TSDF must retain these records for three years after expiration or termination of the agreement. Lastly, the TSDF must submit quarterly summaries to DEC stating what wastes were accepted for reclamation. Forms can be sent to: NYSDEC, Division of Solid and Hazardous Materials, Data Management Section, 625 Broadway, Albany, NY 12233-7251**.**

Universal Waste Rule

To streamline the hazardous waste regulations for wastes that are generated by large numbers of sources (batteries, pesticides, thermostats, and lamps) in relatively small quantities, USEPA issued the Universal Waste Rule in 1995. The universal waste regulations govern the collection and management of these widely generated wastes. Theses regulations were designed to reduce the amount of hazardous waste items in the municipal solid waste stream; encourage the recycling and proper disposal of some common hazardous wastes; and reduce the regulatory burden on the regulated community. Universal wastes are generated in a wide variety of settings including households, schools, office buildings, and medical facilities, in addition to the industrial settings usually associated with hazardous wastes. Universal wastes include such items as hazardous batteries, hazardous mercury-containing thermostats, certain pesticides, and hazardous lamps. Although handlers of universal wastes must meet less stringent standards for storing, transporting, and collecting wastes, the wastes must comply with full hazardous waste requirements for final recycling, treatment, or disposal. Managing waste under the Universal Waste Rule helps remove these wastes from municipal landfills and incinerators, which provides stronger safeguards for public health and the environment. Items included under universal waste include:

1. **Batteries** - Batteries included are nickel-cadmium (Ni-Cd), lithium, and small sealed lead-acid batteries, which are found in many common items in the business and home, including electronic equipment, mobile telephones, portable computers, and emergency backup lighting.

2. **Mercury Thermostats** - Mercury thermostats are located in many buildings including offices, schools, industrial facilities, and homes.

3. **Pesticides** - Agricultural pesticides that are recalled under certain conditions and unused pesticides that are collected and managed as part of a waste pesticide collection program. Pesticides may be unwanted for a number of reasons, such as being banned, obsolete, damaged or no longer needed due to changes in cropping patterns or other factors.

4. **Hazardous Lamps** - Examples of common universal waste hazardous lamps include, but are not limited to, fluorescent lights, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Many used lamps are considered hazardous wastes under the Resource Conservation and Recovery Act (RCRA) because of the presence of mercury or occasionally lead.

Requirements for Universal Waste

If your waste includes hazardous batteries, pesticides, thermostats, or lamps, you must decide whether or not you will manage them as universal waste. You may choose between traditional hazardous waste regulations or universal waste rule standards. However, flip-flopping between the two sets in order to avoid meeting requirements of one or both sets of regulations is not allowed. For example, storage time limits exist for both management scenarios. Flip-flopping between regulations will not extend storage time.

If you decide to manage these wastes under the traditional hazardous waste regulations, you must count them in determining whether you are a conditionally exempt small quantity generator (CESQG), a small quantity generator (SQG) or a large quantity generator (LQG). They must also be reported on the generator annual report if you are required to file an annual report.

If you decide to manage these wastes under the Universal Waste Rule then these wastes are not counted for the purpose of determining generator category, need not be reported on your hazardous waste report, and are not counted for regulatory fee purposes.

Proper handling and storage of universal waste

If your facility manages any of the above mentioned universal wastes at your site, then you are either a small quantity handler or a large quantity handler of universal waste. A small quantity handler of universal waste is any facility that accumulates less than 5,000 kg (11,000 lbs) of total universal wastes on site at any time. Requirements include packaging in a way to minimize breakage; immediately cleaning up any leaks or spills; spills; properly labeling each lamp or container; must provide employee training; and must assure universal wastes are only taken to another universal waste handler, authorized destination facility, or foreign destination. A large quantity handler of universal waste accumulates 5,000 kg (11,000 lbs) or more of total universal wastes on site at any time. Requirements include all the small quantity handler requirements plus EPA notification; record keeping and reporting requirements. Both large and small quantity handlers can store universal waste up to one year on site.

Universal waste transporters must meet applicable DOT standards; comply with record keeping and reporting requirements; and comply with applicable requirements of 6 NYCRR Part 364 (waste transporter permits) if transporting more than 500 lbs of total universal waste in any shipment. Small

or large quantity handlers may self-transport universal wastes in quantities less than 500 pounds of total universal waste without a waste transporter permit. Similarly, common carriers can transport up to 500 lbs of universal waste in any shipment without a permit as well.

Destination facilities must comply with all applicable requirements of 6 NYCRR Parts 370 through 374-3 and 376, including notification of hazardous waste activity and obtaining a Part 373 hazardous waste permit, if applicable.

Regulatory requirements for fluorescent lamps

Currently, most waste fluorescent bulbs are hazardous wastes due to their mercury content. Other examples of lamps that, when spent, are commonly classified as hazardous waste include high-intensity discharge, neon, mercury vapor, high pressure sodium and metal halide lamps. The U.S. Environmental Protection Agency (USEPA) added hazardous waste lamps to the Universal Waste Rule (64 FR 36465 - 36490) in 1999, and DEC adopted these regulations on March 15, 2002. Handlers of hazardous waste lamps are able to choose between handling their lamps under the traditional hazardous waste regulations or universal waste rule standards. However, once you declare your lamps universal wastes, you must continue to handle them as universal wastes. Jumping back and forth between the traditional RCRA approach and the Universal Waste Rule in order to avoid any requirements is prohibited.

Requirements for both small and large quantity handlers have been noted in the requirements for universal waste.

More information on handling of fluorescent lamps and universal wastes can be found on the DEC web site at: www.dec.state.ny.us/website/dshm/hzwstman/bulbs2.htm. You can also contact the Waste Management Section of the Division of Solid and Hazardous Materials at (518) 402-8633.

Requirements for fluorescent bulb crushers

Lamps being managed under the universal waste rule may not be crushed. If you wish to crush your lamps, you will need to manage the lamps under the traditional hazardous waste regulations. This will require that you count the weight of the lamps toward determining hazardous waste generator category, and you will be required to meet applicable generator, transporter and transfer facility standards. Crushing is considered a form of hazardous waste treatment, and under ordinary hazardous waste generator regulations, hazardous waste lamps may only be crushed if the process is exempt from hazardous waste treatment regulations (6 NYCRR 373-1.1(d)(1)). The common exemptions that might be used are the on-site treatment by a conditionally exempt small quantity generator; the first step of a recycling process, if the lamps will be directed to a mercury recycler; or the treatment in the tank or container in which the lamps are being stored. The crushed lamps are usually considered hazardous waste for mercury, and sometimes for lead, and must be handled and disposed of via normal hazardous waste requirements. Generators who wish to use one of the latter two exemptions should seek specific guidance from the Technical Determination Section at (518) 402-8633.

Scrap Metal Exemption for Used Electronics

Most discarded electronics that would qualify as hazardous waste (e.g., computer monitors) are considered to contain sufficient quantities of scrap metal parts that they can be regarded as scrap metal themselves, and, thus, would be exempted from regulation (scrap metal exemption) as hazardous waste. The following conditions must be met:

- Prior Notification [6 NYCRR 371.1(c)(7)]: If the generator is not a Conditionally Exempt Small Quantity Generator (CESQG), both the generator and subsequent handlers in the recycling process in New York State are required to submit a "c7" notification to DEC. The "c7" notification gives certain basic information, such as the locations of generating and receiving facilities. Although written concurrence from DEC is not required, DEC will provide one upon request (provided the electronics item, in fact, qualifies for the exemption).
- Scrap metal must ultimately be recycled. The scrap metal exemption requires that scrap metal pieces actually be reclaimed from the hazardous electronics and that they be recycled.

Note that the scrap metal exemption cannot apply to a part separated from the whole component unless that separated part independently contains scrap metal pieces that will ultimately be reclaimed. For example, an all-plastic case that was separated from a computer monitor could no longer qualify for the scrap metal exemption, nor could cathode ray tube (CRT) glass, once the scrap metal pieces have been separated from the glass. An item which qualifies as hazardous scrap metal is still a hazardous waste. It is merely exempted from regulation.

Manifesting Exemption

If your facility enters into a contractual agreement where a waste hauler is reclaiming the waste in which:

- The type of wastes and frequency of shipments are specified in the agreement;
- The vehicle used to transport the waste to the recycling facility and to deliver the regenerated material back to the facility are owned and operated by the reclaimer;
- The reclaimer complies with all Part 364 waste hauler permit requirements;
- The generator keeps records of the hazardous waste codes, quantity of waste shipped, and the date the waste was shipped for each shipment;
- The generator maintains a copy of the reclamation agreement on file for a period of at least three years after termination/expiration of the agreement.

LARGE QUANTITY GENERATORS

You would be considered a large quantity generator if your business does any of the following:

- Generate more than 1000 kilograms (2,200 pounds) per month of hazardous waste.
- Generate more than 1 kilogram (2.2 pounds) per month of acutely hazardous waste.
- Store more than 6000 kilograms (13,200 pounds) of hazardous waste.

- Store more than 1 kilogram (2.2 pounds) of acutely hazardous waste.

Large quantity generators must manifest their waste, obtain an EPA ID number, store hazardous waste no more than 90 days on site, submit biennial reports to DEC, keep records at your site for three years, comply with land disposal restrictions, and comply with export/import requirements for shipping waste.

Fully regulated generators are not covered in this manual. You can obtain a copy of the regulations for large quantity generators at: http://www.dec.state.ny.us/website/dshm/regs/370parts.htm., or by calling 518-402-8730.

SOME COMMONLY ASKED QUESTIONS BY SQGs

Q Where should I dispose of my fluorescent lamps?

A Fluorescent bulbs contain mercury and should not be discarded in dumpsters. Instead, it is recommended that fluorescent bulbs be recycled as a universal waste. Effective January 6, 2000, DEC issued an enforcement discretion that allows businesses to recycle their fluorescent bulbs as a universal waste. This means that they would not have to be counted as part of your hazardous waste monthly generation totals. Fluorescent light ballasts are not hazardous wastes, at least not for PCB content. Leaking ballasts are regulated by EPA under the Toxic Substance Control Act (TSCA). You can obtain a list of fluorescent bulb recyclers at: http://www.dec.state.ny.us/website/dshm/hzwstman/lamprecy.htm

Q I have several drums of a product that our company can no longer use. Do I have to discard this as a waste?

A A useable product (e.g., pesticides, stain, varnish, solvent) that is no longer needed can, in most cases, be given or sold to another business or organization. If the product can not be transferred to another party (continued use) and you must discard the product, then this would be considered a waste and must be managed as such. Some businesses do not want to give away their unusable products because they are concerned about the liability of this product being discarded illegally, especially if the waste is hazardous. Giving away a useable product does not necessarily constitute generating a waste, in which case, the new owner would become liable for any illegal waste disposal. Remember, good record keeping is always a good management practice.

Q I am a contractor and will be doing a lead abatement project. I will be removing construction and demolition (C&D) debris from old homes that contain lead paint. Where do I discard this material?

A You must first determine if the lead contaminated C&D material is hazardous by performing a toxicity characteristic leaching procedure (TCLP) test. A list of certified labs can be obtained by calling (800) 462-6553. If the material fails the test for lead, then it must be disposed as a hazardous waste. If the material passes the test and

is not considered to be hazardous, you can make arrangements to dispose this waste as C&D material, only if the paint remains intact. When you perform the TCLP test on this or any other material, remember to take a representative sample to the lab for testing. For instance, in the case of a 2X4 or piece of sheet rock, take a core sample that includes the paint as well as the wood or sheet rock.

Q I am a contractor and would like to know if I have to comply with any regulations when I remove asbestos? Also, can I bring this to my local landfill for disposal?

A The removal of asbestos is regulated by the New York State Department of Labor, Asbestos Control Bureau. All contractors must be licensed and all asbestos handlers must be certified by the Department of Labor's License and Certificate Unit. Other phone numbers:
Albany - (518) 457-2072
Syracuse - (315) 479-3215
Buffalo - (716) 847-7601
New York City - (212) 352-6109

After the asbestos is removed, it must be disposed of at a DEC-permitted solid waste landfill authorized to accept asbestos waste. Some landfills have restricted delivery so they can dedicate staff for proper placement and some may not accept any asbestos waste.

Q I am a CESQG and would like to know if DEC could recommend a different waste hauler to transport my hazardous waste?

A DEC cannot recommend a specific waste hauler for your business. However, you can obtain a list of DEC approved Part 364 haulers by calling (518) 402-8705. Did you know that CESQGs can transport up to 220 pounds of hazardous waste at one time to an approved DEC facility? This includes the five household hazardous waste permitted facilities located in New York State. See Section IV for names and locations. By transporting your waste to one of these household hazardous waste facilities, you could save up to 60 percent of your disposal fees. In addition, your liability will decrease dramatically.

Q I am a consultant and my client has a print shop in Dutchess County. Does he have to comply with Part 234 of the air regulations for his VOC emissions?

A If your client's print shop is not located in the NYC Metropolitan area, and he emits 20 or fewer pounds of VOCs per day, he is exempt from obtaining a minor facility registration from DEC and is not subject to 6 NYCRR Part 234. For technical assistance pertaining to the Clean Air Act, your client can also call the Small Business Assistance Program toll free at (800) 780-7227, or Clean Air Act Small Business Ombudsman toll free at (800) STATENY . (Consultants are not included as per Section 507). These organizations are listed in Section IV of this manual.

Q I own a furniture business and was recently inspected by a DEC inspector. I was fined for discarding my used shop towels in the trash. Why can't I throw my shop towels in the normal trash, and

what can I do as an alternative?

A Rags that are discarded at your shop may contain solvents and stains that are listed or characteristically hazardous, specifically for ignitability. In order to comply with DEC regulations, you should perform a toxicity characteristic leaching procedure (TCLP) test on your rags if you choose to discard them in the trash. (See appendix for explanation of TCLP.) If the TCLP test fails, you must dispose of them as a hazardous waste. As an alternative, you can have your rags sent to an industrial laundry service. Your rags must be managed as a hazardous waste until they are placed on the laundry truck. In addition, rags that are sent for laundry service must not contain any free liquids.

Q Currently, my hazardous waste hauler is responsible for removing and disposing of my silver recovery cartridge. Do I need a hazardous waste hauler to dispose of this waste?

A No. If you send your silver recovery cartridge to a reclamation facility to be recycled, your silver would be exempt from the hazardous waste regulations. Otherwise, your silver could be a hazardous waste by characteristic. This means that if you are a dentist office, print shop, x-ray facility, or other commercial imaging facility, you do not have to count this in your hazardous waste count as long as you ship this "cartridge" to an authorized silver reclamation facility. Remember, it is illegal to discharge silver into the publicly owned treatment works (POTW) without prior approval. It should be noted that if your silver is a F006 waste because of the source (e.g., electroplating), then it is not exempt if sent for reclamation.

Q I own a vehicle repair shop and there has been a lot of talk that it is illegal to have floor drains in my shop. Is this true?

A No. However, you should realize that it is illegal to discharge directly to ground or surface waters in the state. This means that if your floor drains are not connected to a publicly owned treatment works (POTW) or some type of holding tank, you are in violation of the Environmental Conservation Law. In addition, if your floor drains are connected to a POTW, you may be required to have an oil/water separator. To find out your requirements, check with your local POTW. For more information on vehicle maintenance shops, call (800) 462-6553 and request a copy of the manual, *Environmental Compliance and Pollution Prevention for Vehicle Maintenance Shops*.

Water Regulations

INTRODUCTION

As a generator of hazardous waste, your business may have to comply with certain regulations under the Clean Water Act. The Clean Water Act simply states that it is illegal to discharge pollutants to surface or groundwaters without a permit. Since the 1972 Clean Water Act, a staggering tonnage of conventional and toxic pollutants have been prevented from entering our waters. One way in which pollutants were prevented from entering New York State waters was through the stream reclassification system. Since 1972, many rivers, streams, and lakes have been reclassified to a higher usage which meant that anyone discharging to these bodies of water must meet the new water quality standards. This eventually led to less pollutants being discharged to our waterways.

The Division of Water is responsible for such programs as:

- Nonpoint source management
- Great Lakes and estuaries
- Studies and assessments of lakes
- Water quality standards
- Sewage treatment plant operators training and certification
- Reviewing and issuing discharge permits
- Sampling of contaminated sediments
- Coastal erosion management
- Flood insurance and dam safety

BEST MANAGEMENT PRACTICES (BMPs)

Best management practices (BMPs) are recognized as an important part of the Clean Water Act's permitting process to prevent the release of toxic and hazardous chemicals. Best management practices are considered to be pollution prevention practices. By focusing on good housekeeping and good management techniques, BMPs will avoid leaks, spills, and improper waste disposal into our waters. BMPs will vary for each facility depending upon site characteristics, industrial processes, and pollutants. For more information on how you can develop a BMP at your facility, call the Division of Water at the number listed in Section IV.

PRETREATMENT PROGRAM

Many industries discharge their wastewater to municipal wastewater treatment plants, rather than directly to a receiving body of water. These industries are called indirect dischargers. EPA regulations require municipal treatment authorities that receive industrial wastewater from indirect dischargers to have pretreatment programs to control indirect discharges. These municipal authorities manage significant indirect discharges through permit programs similar to DEC's State Pollutant Discharge Elimination System (SPDES) Permit program. The objectives of these programs are to prevent pollutants that are incompatible with municipal sewage treatment plants from:

- Interfering with municipal treatment plant operation, including its use or disposal of municipal sludge;
- Passing through municipal treatment plants; and
- Limiting municipal sludge recycling and reclamation.

Local pretreatment programs have considerably reduced incompatible pollutants in New York municipal sewage

treatment plants. DEC, under an agreement with the EPA, currently shares oversight of local pretreatment programs with the EPA.

If your business has a direct discharge to anything other than a sewer system or some type of holding tank, you may be in violation of the Clean Water Act. Discharging to the waters of the state without a SPDES permit may result in costly fines to your business. If you discharge to a municipal wastewater treatment plant, check with that municipality for their pretreatment requirements.

NONPOINT SOURCE PROGRAM

In addition to direct (point source) discharges, the waters of the state can also be polluted by Non-point source pollution. Types of non-point source pollution can include: inactive hazardous waste sites, leaking above ground or underground storage tanks, remediation of contaminated sediment, septic systems, and storm water management.

Storm Water Discharges

According to recent studies, storm water is a major cause of water pollution in New York State. A common misconception about storm sewers is that they go to a wastewater treatment plant. This is not always the case. Storm sewers often transport storm water directly to the nearest river, lake, stream, wetland or groundwater recharge basin.

Federal regulations published on November 16, 1990, have broadened the scope of activities that require discharge permits. Storm water discharges associated with an industrial activity and certain municipal systems with separate storm sewer discharges now require a storm water discharge permit. Storm water associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw material storage areas at an industrial plant.

Some of the types of industrial activities defined in 40CFR section 122.26(b)(14) for which storm water permits are required are:

- Construction activities
- Hazardous waste treatment or storage facilities
- Solid waste management facilities
- Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards
- Electric power generating facilities
- Transportation facilities
- Sewage treatment works
- Certain Standard Industrial Classification Codes that are assigned to businesses

General SPDES Permits

Many industries have storm water discharges already included in their SPDES permit, along with their other discharges. Some businesses that do not operate under a SPDES permit may need to obtain an individual SPDES permit for storm water, also known as a General SPDES Permit. The storm water General SPDES permit requires dischargers to develop pollution prevention plans, implement them and keep them up to date. The plan must include best management practices to be used to control the pollutant load in storm water discharges to state waters.

Call DEC at (518) 402-8123 for more information on the SPDES storm water General permits.

Air Regulations

INTRODUCTION

This section of the manual will give a brief overview of the air regulations pertinent to businesses that generate hazardous waste. For more in-depth explanations of all the air regulations, we suggest that you contact your DEC regional office, or one of the technical assistance organizations listed in Section IV of this manual.

If your business does generate hazardous waste, there may be certain air regulations that you will have to comply with. The Pollution Prevention Unit has developed, or is in the process of developing, industry-specific manuals that will explain in more detail which air regulations apply to your business**.**

In New York State the air regulations may vary from region to region and distinguish between the **New York City Metropolitan Area** and upstate New York. The New York City Metropolitan Area consists of New York City, Rockland, Nassau, Suffolk, Westchester, and Lower Orange County (Towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury).

Many small businesses are subject to new requirements as a result of the 1990 federal Clean Air Act Amendments. Depending on the amount of air emissions your facility discharges, you may be required to obtain a Title V Permit, State Facility Permit or Minor Facility Registration. Some businesses that may be affected include:

- Surface coating or painting operations
- Degreasing and parts cleaning operations
- Metal finishing or plating operations
- Air conditioning repair operations
- Graphic arts/printing operations
- Petroleum bulk storage
- Chemical formulation
- Process air emissions
- Auto body shops
- Dry cleaners

VOLATILE ORGANIC COMPOUNDS (VOCs)

Volatile organic compounds (VOCs) are any organic compound which produce photochemical reactions in the atmosphere. VOCs are regulated by DEC in order to reduce ground-level ozone. Some solvents and degreasers, such as trichloroethylene, methyl ethyl ketone and more common solvents like toluene and xylene are VOCs.

PERMITTING REQUIREMENTS

DEC's new air quality permit and registration program, as outlined in 6 NYCRR Part 201, assures that air quality regulations are being properly followed. One of the changes involves a three-tier air permitting system:

- **Minor Facility Registration** - This is intended for facilities with low emission levels. Sources that are subject to regulation for volatile organic compounds (VOCs), such as printing and surface coating operations, and **existing** sources subject to New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP), whose actual air emissions are less than half of the major source thresholds, are eligible. Registration is valid for the life

of the stationary source and is not subject to a renewal process.

- **State Facility Permit** - This permit would apply to those sources requiring an emissions cap below major source thresholds. Also, new minor facilities that are subject to NSPS and NESHAPs must obtain this permit. This would include new sources such as dry cleaners, chrome plating processes, and halogenated solvent degreasing operations. The permit application requires a significant amount of detail about the process being permitted. State facility operating permits do not expire and only need to be modified if a change at the facility triggers a new requirement.

- **Title V Permits** - This permit is intended for major sources of air pollution and requires the applicant to identify each applicable federal and state requirement.

EXEMPTIONS

When DEC revised its permitting rule under Part 201 in July 1996, it increased the number of exempt activities from 37 to over 100. Many small businesses are eligible for the new **exemptions**, including:

- Graphic arts facilities located outside the New York City Metropolitan Area with VOC emissions that do not exceed 20 pounds per day.
- Screen printing inks, coatings, and adhesives (containing VOCs) that are applied by a hand-held squeegee.
- Surface coaters and related operations located outside the New York City Metropolitan Area and Lower Orange County that use less than 25 gallons combined of paints and solvents per month, only if the operation is conducted in an enclosed building where such operations are exhausted into an appropriate emission control device.
- Powder coating operations.
- Paint and solvent storage rooms.
- Aqueous parts cleaning equipment.
- Most maintenance and construction activities; (i.e.; welding, sandblasting).

As a rule of thumb, it is always a good idea to maintain records of all your VOC emissions.

REGULATION OF HAZARDOUS AIR POLLUTANT EMISSIONS

Regulations controlling emissions of Hazardous Air Pollutants (HAPs) are found in 40CFR Part 63- National Emission Standards for Hazardous Air Pollutants (NESHAP).

Congress established a list of HAPs under Title III of the Clean Air Act Amendments of 1990 (CAA). Title III required the EPA to determine which industrial categories were major and area (non-major) sources of HAP emissions, and publish a list of these source categories within 12 months after the date of enactment of the Clean Air Act. EPA was then given 10 years to develop and promulgate regulations requiring that Maximum Achievable Control Technology (MACT) be applied to control HAP emissions from each of these source categories.

As a rule of thumb, it is always a good idea to maintain records of all your VOC emissions.

Petroleum Bulk Storage Regulations

In 1983, the State Legislature enacted Article 17, Title 10 of the Environmental Conservation Law, entitled "Control of the Bulk Storage of Petroleum." The Law applies both to Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs), or groupings of such tanks with a combined storage capacity of more than 1,100 gallons. Exempted from this law because they are regulated under other programs are: oil production facilities; facilities licensed under the Navigation Law; and, facilities regulated under the Natural Gas Act.

Under 6 NYCRR 612-614 passed in 1985, owners were required to register storage facilities with DEC by December 27, 1986. Facilities must re-register every five years. Registration fees vary from $50 to $250 per facility, depending on capacity. Some 114,000 tanks, holding a total of nearly 4.4 billion gallons, are registered in New York. New facilities must be registered before being placed into service. DEC must be notified 30 days prior to substantial modifications.

Nassau, Suffolk, Rockland, Westchester, and Cortland Counties administer the program in these localities, pursuant to delegation from DEC. Because these counties may have more stringent requirements than the State, owners and operators should contact the county to learn of specific local requirements.

All facilities regulated under Article 17, Title 10 must meet certain handling and storage requirements established by DEC. Existing USTs and ASTs must observe rules for color coding of fill ports, shutoff valves, gauges and check valves. Aboveground tanks must be provided with secondary containment (i.e., berms or other devices to contain spills). Operators of USTs must keep daily inventory records (and maintain them for five years) and notify DEC and the tank owner within 48 hours of unexplained inventory losses. They must also test tanks and pipes every five years or monitor the interstitial space of double-walled equipment. Operators of ASTs must conduct monthly visual inspections. Every 10 years they must clean out the tanks, remove the sludge from the bottom, inspect for structural integrity and test for tightness.

Tanks that are temporarily out-of-service (30 days or more) must be drained of product to the lowest draw off point. Fill lines and gauge openings must be capped or plugged. Inspection and registration must continue. Those tanks that are permanently out-of-service must be emptied of liquid, sludge and vapors and must either be removed or filled with solid inert material, such as sand or concrete slurry. DEC must be notified 30 days prior to filling or removal.

Part 614 applies to all new and modified facilities. New USTs must either be made of fiberglass reinforced plastic; cathodically protected steel (to protect against the corrosion caused by contact between steel and soil); or steel clad with fiberglass reinforced plastic. Secondary containment such as a double-walled tank, a vault, a cut-off wall or impervious underlayment must be provided. Double-walled tanks must have the interstitial space monitored for leaks. If one of the other secondary containment options is chosen, an in-tank monitoring system, or one or more observations wells can be used. New ASTs must be constructed of steel. If their bottom rests on the ground, the tank must have

cathodic protection. An impermeable barrier must be installed under the tank bottom, with monitoring between the barrier and the bottom. New underground piping systems must be designed with a 30-year life expectancy. If made of steel, they must be cathodically protected. Pipes may be constructed of fiberglass- reinforced plastic or other equivalent non-corrodible materials.

SECONDARY CONTAINMENT

Secondary containment is any structure which is designed to prevent leaks and spills from reaching the land or water outside the containment area. All aboveground tanks with a capacity of 10,000 gallons or more must be equipped with secondary containment. All aboveground tanks smaller than 10,000 gallons are required to be equipped with secondary containment if it is reasonably expected that the facility is within close proximity to ground or surface waters of the state. Facilities within 500 feet of the following resources may be considered in close proximity to ground or surface waters:

- perennial or intermittent stream;
- public or private well;
- primary or principal aquifer;
- wetlands as defined in 6 NYCRR 664;
- lake, pond, estuary, etc.; or
- storm drain.

WHEN TO REPORT A SPILL?

Reporting spills is a crucial first step in the response process. There may be several different state, local, and federal laws and regulations that require spillers to report petroleum and hazardous materials spills.

Petroleum spills must be reported to DEC unless they meet **all** of the following criteria:

- The spill is known to be < 5 gallons.
- The spill is contained and under the control of the spiller.
- The spill has not and will not reach the State's water or any land.
- The spill is cleaned up within two hours of discovery.

All reportable spills must be reported to the DEC spills Hotline at 1-800-457-7362.

Chemical Bulk Storage Regulations

HAZARDOUS SUBSTANCES

New York's chemical bulk storage (CBS) program addresses both underground (UST) and aboveground storage tanks (AST) containing regulated hazardous substances. In 1986, the state legislature passed the Hazardous Substance Bulk Storage Act, which required DEC to establish a program for preventing the release of hazardous substances into the environment. Phase I (6 NYCRR Parts 595, 596, and 597) of the CBS regulations was adopted on July 15, 1988 and established a list (Part 597) of chemicals to be regulated. These regulations (Part 596) required the registration of ASTs that exceed 185-gallon capacity and all USTs that store any of these hazardous substances either singularly or in combination.

Phase II was adopted on August 11, 1994. This phase modified Parts 595, 596, and 597 and established minimum requirements and schedules in Parts 598 and 599 for the design, construction, installation, operation, maintenance, repair, monitoring, testing, and inspection of storage facilities.

REGULATORY DEADLINES AND REQUIREMENTS FOR FACILITY UPGRADE

Part 598 establishes the upgrade requirements for USTs with a deadline of December 22, 1998 (the same as EPA's UST program) and for ASTs with a deadline of December 22, 1999. Facilities constructed after February 11, 1995 must meet the standards for all new or substantially modified facilities (Part 599). The installation of a new tank, even a replacement tank, is considered a substantial modification. Repairs and replacements to ancillary piping, vents, gauges, pumps, etc., are not considered substantial modifications.

USTs are required to be (1) corrosion resistant, which consists of cathodically-protected steel, fiberglass-reinforced plastic, or a combination of both, and must have (2) secondary containment with interstitial monitoring for leak detection.

If the tank is not double-walled, it must be installed inside an excavation liner to contain any releases. All USTs must be equipped with spill and overfill prevention devices to include high-level alarms or automatic shutoff devices, spill catchment basins at the fill-port, and secondary containment for the transfer station. Underground piping must be corrosion resistant and have secondary containment with interstitial monitoring.

As of December 22, 1999, all ASTs should have been upgraded. Tanks in contact with soil must be cathodically protected. Tanks constructed of materials which could melt when exposed to fire must be protected from fire. All ASTs must have secondary containment and be equipped with a product level gauge and either a high-level alarm, a high level trip, or an overflow to a catch tank. The storage tank must be equipped with valves to control the flow of product for each tank connection.

SECONDARY CONTAINMENT AT TRANSFER STATIONS

A transfer station is an area where pipes or hoses are connected and disconnected to empty or fill a storage tank. This includes railways, roads, containment basins, curbs, collection sumps, and impervious pads where a vehicle or container is located to off-load or to receive a hazardous substance, where a coupling to a transfer line is made for the purpose of hazardous substance transfer, or where a system to collect and contain spills resulting from transfer is located. As of December 22, 1999, all transfers of hazardous substances at a registered facility must occur within a transfer station equipped with permanently installed secondary containment. The goal of the program is to control any release from bulk storage systems and transfer operations and to reduce/eliminate releases to soil, surface water, and groundwater.

SPILL PREVENTION REPORT (SPR)

The SPR is considered to be the cornerstone of the CBS regulations and was required by August 11, 1996. The major elements of the SPR require a listing of all spills over the previous five-year period, an assessment of the causes of those spills, a compliance assessment of bulk storage operations, records of inspections, a spill response plan, and management's signature indicating acceptance and approval of the report. A proper SPR can minimize and eliminate injury, loss of life, hospitalization, subsequent remediation, and reduce overall liability.

Section II - Description of Waste Streams

EPA Hazardous Waste Codes for Wastes That Are Commonly Generated by Small Quantity Generators

The Environmental Protection Agency recognizes that generators of small quantities of hazardous waste, many of which are small businesses, may not be familiar with the manner in which hazardous wastes are identified. This section of the manual has been assembled to aid small quantity generators in determining the EPA Hazardous Waste Codes for their wastes. These numbers are needed to complete the "*Notification of Regulated Waste Activity*," Form 8700-12, figure 1, pages 10 and 11). For a complete list of waste codes, you should refer to 40 CFR Part 261.

This section contains lists of chemicals with their respective EPA Hazardous Waste Codes for waste streams identified in Table 2, on page 4. The acutely hazardous wastes listed in pesticides table 2 on page 28 are identified with an asterisk (*).

HOW TO USE THIS SECTION

- Locate your business type in Table 2, on page 4. This will help you to identify the waste streams common to your activities.

- Once you have identified each of your waste streams in Table 2, you can then review the more-detailed descriptions of these wastes in this section to determine which of these waste streams result from your activities.

- If you determine that you do generate a particular waste stream, report the four-digit EPA Hazardous Waste Code in Item X of Form 8700-12, "*Notification of Regulatory Waste Activity*."

The industries and waste streams described here do not provide a comprehensive list, but rather serve as a guide for potential small quantity generators in determining which of their wastes, if any, are hazardous. In those cases where more than one EPA Hazardous Waste Code is applicable, all should be used. If you have any questions, or if you are unable to determine the proper EPA Hazardous Waste Codes for your wastes, please contact the Technical Determination Section, Bureau of Hazardous Waste Management at (518) 402-8633.

SOLVENTS

Certain solvents, spent solvents, solvent mixtures, or solvent still bottoms may be hazardous. This includes solvents used in degreasing (identified as F001) and paint brush cleaning and distillation residues from reclamation. The following are some commonly used hazardous solvents:

Benzene - F005, D018
Carbon Disulfide - F005
Carbon Tetrachloride - F001, D019
Chlorobenzene - F002, F021
Cresols - F004, D026
Cresylic Acid - F002, D027
O-Dichlorobenzene - F002, D027
Ethanol - D001
2-Ethoxyethanol - F005
Ethylene Dichloride - D001
Isobutanol - F005
Isopropanol - D001

Kerosene - D001
Methyl Ethyl Ketone - F005, D035
Methylene Chloride - F001, F002
Naphtha - D001
Nitrobenzene - F004, D036
2-Nitrobenzene - F004
Petroleum Solvents - D001
Pyridine - F005, D038
1,1,1- Trichloroethane - F001, F002
1,1,2- Trichloroethane - F002
Tetrachloroethylene
(Perchloroethylene) F001, F002, D039
Toluene - F005
Trichloroethylene - F001, F002, D040
Trichlorofluoromethane - F002
Trichlorotrifluoromethane (Valclene)
F002

Still residues containing petroleum solvents with a flashpoint less than 140°F are considered hazardous and have the EPA Hazardous Waste Code of D001.

ACIDS/BASES

Acids, bases, or mixtures having a pH of 2 or less, or 12.5 or greater, are considered corrosive. For a complete description of corrosive wastes, see 40 CFR Part 261.22 or 6 NYCRR Part 371. All corrosive materials and solutions have the EPA Hazardous Waste Code D002. Some of the more commonly used corrosives are: Acetic Acid, Ammonium Hydroxide Oleum, Chromic Acid, Hydrobromic Acid, Hydrochloric Acid, Hydrofluoric Acid, Nitric Acid, Perchloric Acid, Phosphoric Acid, Potassium Hydroxide, Sodium Hydroxide, Sulfuric Acid.

DRY CLEANING FILTRATION RESIDUES

Cooked powder residue (perchloroethylene plants only), still residues, and spent cartridge filters containing perchloroethylene or valclene are hazardous and have the EPA Hazardous Waste Code F002. Any waste containing 0.7 mg/l or more of perchloroethylene as tested by the TCLP also has the EPA Hazardous Waste Code D039.

HEAVY METALS/INORGANICS

Heavy metals and other inorganic waste materials exhibit the characteristic of TC Toxicity and are considered hazardous if they fail the Toxicity Characteristic Leaching Procedure. These wastes may include dusts, solutions, wastewater treatment sludges, paint wastes, waste inks, and other such materials that contain heavy metals/inorganics. Wastewater treatment sludges from electroplating operations are identified as Hazardous Waste Code F006. The following are TC Toxic:

Arsenic - D004
Barium - D005
Cadmium - D006
Chromium - D007
Lead - D008
Mercury - D009
Selenium - D010
Silver - D011

IGNITABLE WASTES

Ignitable wastes include, any liquids that have a flashpoint less than 140° F; any non-liquids that are capable of causing a fire by friction, absorption of moisture, or spontaneous chemical change; any ignitable compressed gas as described in 49 CFR 261.300 (for a complete description of ignitable wastes, see 40 CFR Part 261 or 6 NYCRR Part 371), or strong oxidizers. Examples are spent solvents (see also "solvents"), solvent still bottoms, ignitable paint wastes (paint removers, brush cleaners and stripping agents), epoxy resins and

adhesives (epoxies, rubber cements and marine glues), and waste inks containing flammable solvents. Unless otherwise specified, all ignitable wastes have the EPA Hazardous Waste Code of D001. Some commonly used ignitable compounds are:

Acetone - F003
Benzene - F005, D018
n-Butyl Alcohol - F003
Chlorobenzene - F002, D021
Cyclohexanone - F003
Ethyl Acetate - F003
Ethylbenzene - F003
Ethyl Ether - F003
Ethylene Dichloride - D001
Methanol - F003
Methyl Isobutyl Ketone - F003
Petroleum Distillates - D001
Xylene - F003

INK SLUDGES CONTAINING CHROMIUM AND LEAD

This includes solvent washes and sludges, caustic washes and sludges or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments; driers; soaps; and stabilizers containing chromium and lead. All ink sludges have the EPA Hazardous Waste Code K086 and may also have the EPA Hazardous Waste Codes D007 and/or D008.

LEAD-ACID BATTERIES

Used lead-acid batteries should only be reported on the notification form if they are not being recycled. Used lead-acid batteries that are recycled do not need to be counted in determining the quantity of waste that you generate per month, nor do they require a hazardous waste manifest when shipped off your premises. Lead Dross (D008), Spent Acids (D002), Lead-Acid Batteries (D008).

PESTICIDES

The pesticides listed in Table 2 on page 35 are hazardous. Wastes marked with an asterisk (*) have been designated acutely hazardous. For a more complete listing, see 40 CFR 261.32 and 261.33, or 6 NYCRR Part 371 for specific listed pesticides and other wastes, wastewaters, sludges, and by-products from pesticide formulators. Even though many of these pesticides are no longer in common use, they are included here for those cases where they may be found in storage.

REACTIVES

Reactive waste includes reactive materials or mixtures which are unstable, react violently with or form explosive mixtures with water or air, generate toxic gases or vapors when mixed with water or air (or when exposed to pH conditions between 2 and 12.5 in the case of cyanide or sulfide-bearing wastes), or are capable of detonation or explosive reaction when heated or subjected to shock (for a complete description of reactive wastes, see 40 CFR 261.23, Characteristic of Reactivity). Unless otherwise specified, all reactive wastes have the EPA Hazardous Waste Code D003. The following materials are commonly considered to be reactive:

Acetyl Chloride
Chromic Acid
Cyanides
Hypochlorites
Organic Peroxides Perchlorates
Permanganates
Sulfides

TABLE 2
Pesticides

Aldicarb*	P070	Dinoseb*	P020	Parathion*	P089
Aldrin*	P004	Disodium Monomethanearsenate	D004	Pentachloro-nitrobenzene	U185
Armmitrole	U011	Disulfoton*	P039	Pentachloro-phenol	U242
Arsenic Pentoxide*	P011	Endosulfan*	P050	Phenylmercuric Acetate	D009
Arsenic Trioxide*	P012	Endrin*	P051	Phorate*	P094
Cacodylic Acid*	U136	Ethylmercuric Chloride	D009	Strychnine*	P108
Carbamic Acid, Methylnitrose-Ethyl Ester	U178	Famphur*	P097	2,4,5-Trichloro-phenoxy Acetic Acid	U232
Chlordane	U036	Heptachlor*	P059	2-(2,4,5-Trichloro-phenoxy)-Propionic Acid	U233
Copper Cyanides*	P029	Hexachloro-benzene	U127	Thallium sulfate*	P115
1,2-Dibromo-3-chloropropane	U066	Kepone	U142	Thiram	U244
1,2,-Dichloropropane	U083	Lindane	U129	Toxaphene*	P123
1,3-Dichloropropene	U084	2-Methoxy Mercuric Chloride	D009	Warfarin	U248
2,4-Dichlorophenoxy Acetic Acid	U240	Methoxychlor	D014		
DDT	U061	Methyl Parathion*	P071		

* Acutely Hazardous

SPENT PLATING AND CYANIDE WASTES

Spent plating wastes contain cleaning solutions and plating solutions with caustics, solvents, heavy metals, and cyanides. Cyanide wastes may also be generated from heat treatment operations, pigment production, and manufacturing of anti-caking agents. Plating wastes are generally Hazardous Waste Codes F006-F009. Cyanide heat treating wastes are generally Hazardous Waste Codes F010-F012. See 40 CFR 261.32 for a more complete description.

WOOD PRESERVING AGENTS

The wastewater treatment sludges from wastewater treatment operations at facilities that use wood preserving agents are considered hazardous. Bottom sediment sludges from the treatment of wastewater processes that use creosote and pentachlorophenol have the EPA Waste Code K001. In addition, unless otherwise indicated, specific wood preserving compounds are:

Chromated Copper Arsenate - D004
Creosote - U051
Pentachlorophenol - F027

Section III - Pollution Prevention

The term pollution prevention can be defined as the elimination or reduction in volume or toxicity of waste prior to recycling, treatment or disposal.

At first, pollution prevention was geared toward businesses that generated hazardous waste. Eventually, the concept caught on at larger companies to try and minimize all waste streams.

It is not to difficult to figure out that the most cost-effective way of managing any waste is to not generate it in the first place. Pollution prevention or waste reduction methods can be used by all businesses. You can decrease the amount of hazardous waste your business produces by developing good housekeeping methods, inventory control, employee training, and purchasing practices. Not every pollution prevention activity discussed in this section will make sense for your facility.

Pollution prevention methods help to protect the environment by reducing the amount of hazardous waste that needs to be treated, disposed, or stored. Most businesses have found that pollution prevention can save a substantial amount of money in raw material costs and/or avoided disposal costs.

The first step in starting a pollution prevention program is to get management support. There is no substitution for good leadership in pollution prevention. Management should support the program and encourage employees to be creative in finding new ways to minimize waste at their facility. Incentives can be used as an effective means of rewarding employees who make contributions to their company's pollution prevention efforts.

An important step in minimizing your hazardous waste generation is to be aware of which chemicals you use at your business. For example, by monitoring your use of different chemicals you may recognize opportunities to switch to less-hazardous materials. The following discussion is intended to give a general overview of pollution prevention opportunities and may not be all-inclusive for your particular business sector. Call the Pollution Prevention Unit at (518) 402-9469 to see if there are manuals available for your industry sector.

Small quantity generators who manifest their hazardous waste must sign a certification on the manifest form stating, "I have made a good faith effort to minimize my waste and select the best management method that is available to me and that I can afford." Large quantity generators have to sign a similar certification. DEC has developed a guidance document which will help small quantity generators minimize their hazardous waste. Contact the Hazardous Waste Minimization Section at (518) 402-8633 for a copy of this guidance.

Pollution prevention options can be broken into three categories: management practices, equipment modifications, and process modifications. If your business is just starting a pollution prevention program, start with some easy and inexpensive practices. Some of the easiest and least-expensive practices produce the most-effective pollution prevention results.

MANAGEMENT PRACTICES

Good management of waste, especially hazardous waste, often saves companies money. Management practices include: good housekeeping, inventory control, employee training, material safety data sheets (MSDS), preventive maintenance and spill response planning. After reading the management practice ideas below, you will notice that your

business will require little or no capital expense to practice these pollution prevention methods. The only resource you might have to spend is a little extra time to familiarize yourself and your employees with some new ideas your company may not be practicing.

Good Housekeeping

If your operation is clean and orderly, there is better control over materials and equipment and less likelihood of spills. The result is less waste. Here are some basic good housekeeping guidelines:

- Don't mix hazardous wastes with nonhazardous wastes, since this increases the amount of waste that must be disposed of as a hazardous waste.
- Designate appropriate storage areas for all equipment, materials, and wastes.
- Require every employee to return all materials and equipment to their designated area.
- Use drip pans for equipment cleaning to avoid having to clean up spills.
- Keep containers of solvents, paint thinners and other materials closed when not in use to avoid losing valuable raw materials to the air.
- Keep different types of wastes separate since this practice may increase the possibility of recycling.
- Establish a procedure and a schedule to inspect chemical receiving, storage, and mixing areas for cleanliness and neatness.

Inventory Control

Managing the chemical inventory includes rotating the stock so that the oldest is used first. Some materials break down over extended storage time and thus may become unusable. When these products are discarded, they may become hazardous wastes. To avoid having to dispose of unused materials, incorporate the following into your supply procedures:

- Order materials on an as-needed basis. If ordering in bulk, check with your vendors to see if they will take back unused portions.
- Mark the purchase date on containers and use older materials first.
- Control the use of hazardous materials so that these materials are not used unnecessarily when a substitute would work as well.
- Don't use solvents if there are effective substitutes such as detergents (e.g., for hand cleaning, floor cleaning).
- Try to use one multipurpose solvent rather than several different solvents. This will increase the recycling potential of the spent solvent. It will also permit you to buy the multipurpose solvent in bulk, thereby saving money.

Employee Training

Staff should be trained to recognize pollution prevention opportunities and should be instructed not to create waste in the work area. If possible, send employees to a pollution prevention workshop or an industry-specific workshop that will discuss waste management.

Training employees about the efficient use of chemicals that may, when used or disposed, become hazardous wastes can help to reduce the amount of waste that needs to be disposed of. For example, if a particular business uses paint thinner or solvent, you can minimize the waste that is generated by:

- Stressing the need to use the minimal amount of paint thinner to get the job done.

- Reusing solvent until it is no longer useable.
- Using your spent solvent as paint thinner.

Material Safety Data Sheets

Material Safety Data Sheets (MSDS) provide valuable information regarding the contents of commercial products such as paints, solvents and inks. They also provide information that will enable you to determine if a material when disposed of, will be a hazardous waste.

Obtaining copies of MSDS from your vendors prior to purchase will allow you to have more control over whether or not your company will generate hazardous waste. Make sure there is MSDSs on file for every chemical that is used at the facility. Most chemical companies or vendors will fax you a MSDS within a day or two.

Preventive Maintenance

To make your equipment work at its optimum level, your company should implement a preventive maintenance program. Use the recommendations found in the equipment's operating manual as a starting point.

Practice preventive maintenance of equipment to reduce spills or leaks of materials which may then need to be disposed of as hazardous wastes. Here are some of the activities that a preventive maintenance program should include:

- Identify equipment, systems, and structures to which the preventive maintenance program should apply.
- Determine appropriate preventive maintenance activities and the schedule for this maintenance.
- Perform the preventive maintenance activities.
- Keep the preventive maintenance records on file for equipment, systems, and structures used at your facility.

Spill Response Planning

Any time that a solution is unintentionally released it is a spill.

If a container holding a solvent, petroleum product or other hazardous material is dropped on the floor and leaks on the ground, it is an unintentional spill. Most spills are minor spills and could be cleaned up with a mop or sponge. However, if a larger spill occurs that requires special clean-up materials and procedures, your facility should be ready to deal with this incident.

A good spill response plan will help minimize the effect of the spill on the environment and reduces liability for clean-up costs and possible bodily injury. Keeping chemical and waste storage areas safe and secure can minimize spills. Here are some basic guidelines to include in your spill response planning:

- Make sure that the spill response plan is posted in the chemical storage/mixing area.
- Make sure there is always someone trained in spill response procedures at the facility, or who can be contacted if needed.
- Do not allow staff who haven't been trained in hazard communication into areas where chemicals are used or stored.
- Take an inventory of all the chemicals used at your facility.
- Make a floor plan showing the location of all chemicals in the processing area,

floor drains, exits, fire extinguishers and spill response supplies.

- Check to see that there is proper containment around all chemical containers. All employees should be familiar with the containment areas in case there is a leak or rupture.
- Make a list of all the spill response supplies and equipment such as mop, pail, sponge, absorbent materials, neutralizing materials and personal protective equipment.
- Conduct sample training procedures to see how employees will respond to a spill.

EQUIPMENT AND PROCESS MODIFICATIONS

Equipment and process modifications are two other ways to prevent the production of waste. In some cases, it may not be possible or economical to modify your equipment or process. Many small businesses may not need to make any equipment or process modifications in order to minimize their waste. These options, however, should be examined in your pollution prevention plan before you make any changes. The best way to start is to list separately the modifications you are considering for each sector of your business. Call the Pollution Prevention Unit at (518) 402-9469 to see if there is a manual that explains equipment and process modifications for your specific business. You may wish to consult other sources for additional guidance.

Section IV - Resource Guide

The following organizations provide technical assistance, publish information, conduct or speak at workshops and conferences, and provide telephone, written and on-site information and assistance to generators on pollution prevention and better management of air, water, solid and hazardous waste issues.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

625 Broadway, Albany, NY 12233

Division of Solid & Hazardous Materials
Bureau of Hazardous Waste Regulation
(518) 402-8633
Small Quantity Generator Hotline
(800) 462-6553
This bureau is responsible for making hazardous waste determinations and the Small Quantity Generator Hotline.

Division of Environmental Permits
(518) 402-9167
Technical assistance and outreach, workshops/training, publications, pollution prevention, and EMS.

Division of Air Resources
Bureau of Stationary Sources
(518) 402-8403
This bureau is responsible for source review, permitting, NESHAP and toxics assessments.

Division of Water
Bureau of Water Permits
(518) 402-8111
This bureau is responsible for managing the State Pollution Discharge Elimination System (SPDES) permits, the SPDES program for storm water discharges, the water resources programs, and the municipal water supply permit.

Division of Solid & Hazardous Materials
Waste Transporter Section
(518) 402-8705
This office is responsible for issuing permits to waste haulers that transport solid and hazardous, industrial/commercial, sewage and septage waste.

Division of Solid & Hazardous Materials
Bureau of Solid Waste Reduction & Recycling
(518) 402-8705
This bureau is responsible for the waste tire program, the beneficial use program, the composting program and other solid waste recycling and waste reduction issues.

Petroleum Bulk Storage Hotline
(518) 402- 9549
Provides technical assistance on chemical and petroleum above/underground storage tanks.

Spill Response Hotline
(800) 457-7362
To report spills of oil petroleum products or hazardous materials on land or water in New York State. Companies are legally required to report a spill within 24 hours. Also, the National Response Center should be notified. *(See page 36)*

NYSDEC Regional Offices

REGION 1
Nassau & Suffolk Counties
Building 40 SUNY at Stony Brook
Stony Brook, NY 11790
(631) 444-0204

REGION 2
Bronx, Kings, New York, Queens and Richmond Counties
47-40 21st Street
Long Island City, NY 11101
(718) 482-4949

REGION 3
Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster & Westchester Counties
21 South Putt Corners Road
New Paltz, NY 12561-1696
(845) 256-3003

REGION 4
Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady & Schoharie Counties
1150 North Westcott Road
Schenectady, NY 12306-2014
(518) 357-2068

REGION 5
Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren & Washington Counties
Route 86, PO Box 296
Ray Brook, NY 12977-0296
(518) 897-1211

REGION 6
Herkimer, Jefferson, Lewis, Oneida & St. Lawrence Counties
317 Washington Street
Watertown, NY 13601
(315) 785-2239

REGION 7
Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga & Tompkins Counties
615 Erie Boulevard West
Syracuse, NY 13204-2400
(315) 426-7403

REGION 8
Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne & Yates Counties
6274 East Avon-Lima Road
Avon, NY 14414-9519
(585) 226-5366

REGION 9
Allegany, Cattaraugus, Chautauqua, Erie, Niagara & Wyoming Counties
270 Michigan Avenue
Buffalo, NY 14203-2999
(716) 851-7200

State and Local Assistance

Suffolk County Water Authority
4060 Sunrise Highway
Oakdale, New York 11769
(631) 589-5200
Provides confidential assistance to businesses in Suffolk County.

Erie County Office of Pollution Prevention
95 Franklin Street, Room 1077
Buffalo, NY 14202-3973
(716) 858-7674
Provides confidential assistance to businesses and the private sector in Erie County.

NYC Department of Environmental Protection, Environmental Economic Development Assistance Unit
59-17 Junction Boulevard
Corona, NY 11368
(718) 595-4359
Provides assistance to small businesses in New York City.

The Center for Business and Industry
SUNY at Fredonia, Lagrasso Hall
Fredonia, NY 14063
(716) 673-3177
Provides assistance for businesses located in Chautauqua, Cattaraugus, and Allegany counties.

Broome County Division of Solid Waste Management
Edwin Crawford County Office Building
44 Hawley Street
Binghamton, NY 13902
(607) 778-2250
Provides assistance to residents and businesses in Broome County.

NYS Environmental Facilities Corporation
Small Business Assistance Program
625 Broadway
Albany, NY 12205
(800) 780-7227
(518) 402-7462
Provides free technical, confidential assistance to small businesses in New York on issues regarding compliance with state and federal air pollution laws and regulations.

Clean Air Act Small Business Environmental Ombudsman
Empire State Development
Small Business Division
633 3rd Avenue, 32nd Floor
New York, NY 10017
(800) STATENY or (800) 782-8369
Provides free confidential assistance to small businesses in New York State on issues regarding the Clean Air Act, including sources of financing for purchasing compliance equipment.

Your county or town Department of Health, Public Works Office, or Environmental Management Council may also be able to provide you with information on local regulations and issues.

US Environmental Protection Agency

Small Business Ombudsman Hotline
1200 Pennsylvania Avenue
Washington, DC 20460
Phone: (800) 368-5888
Fax: (703) 305-6462
Helps private citizens, small businesses, and smaller communities with questions on all EPA program aspects.

RCRA/Superfund/EPCRA Hotline
1200 Pennsylvania Avenue
Washington, D.C. 20460
(800) 424-9346
(202) 557-1938
Answers questions on matters related to solid waste, hazardous waste, or underground storage tanks. Also, can be used to order EPA publications.

EPA Region II Office
Compliance Assistance & Support Branch
290 Broadway, 21st Floor
New York, NY 10007-1866
(212) 637-3268
Provides compliance and pollution prevention assistance to EPA Region 2 area businesses.

EPA Region II Office
Division of Enforcement and Compliance Assistance - RCRA Compliance Branch
290 Broadway, 22nd Floor
New York, NY 10007-1866
Phone: (212) 637-4145
Fax: (212) 637-4949
In addition to conducting RCRA inspections on small businesses, this office provides technical assistance on RCRA-related issues.

EPA Headquarters
Office of Compliance (2224A)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: (202) 564-7076
Fax: (202) 564-0009
Regulatory, technical, compliance and pollution prevention assistance.

Department of Transportation Hotline
Office of Hazardous Materials Standards
Research & Special Programs Administration
400 7th Street, SW
Washington, DC 20590-0001
Phone: (202) 366-4000
Fax: (202) 366-3753
Technical assistance on matters related to DOT's hazardous materials transportation regulations.

Pollution Prevention Information Clearinghouse (PPIC)
PPIC-EPA
1200 Pennsylvania Avenue
Washington, DC 20460
Phone: (202) 566-0799
Fax: (202) 566-0794
E-mail: ppic@epamail.epa.gov
Provides a library and an electronic bulletin board dedicated to information on pollution prevention.

National Response Center
(800) 424-8802
In Washington, D.C. (202) 426-2675
To report oil and chemical spills to the Federal Government. This hotline is manned by the U.S. Coast Guard.

New York State Permitted Household Hazardous Waste Facilities

If you are a Conditionally Exempt Small Quantity Generator and located in one of the following counties, you can call the number listed to make arrangements to bring your hazardous waste for disposal. Appointments are usually required.

Broome County
Division of Solid Waste Management
P.O. Box 1766
Government Plaza
Binghamton, NY 13902
(607) 778-2250

Oneida-Herkimer Solid Waste Management Authority
311 Turner Street
Utica, NY 13501
(315) 733-1224

Monroe County
444 East Henrietta Road
Rochester, NY 14620
(716) 760-7600, option 3

Rockland County
50 Sanitorium Road
P.O. Box 350
Pomona, NY 10970
(845) 364-2086

Tompkins County Solid Waste Management
122 Commercial Avenue
Ithaca, NY 14850
(607) 273-6632
(607) 273-HHMW (4496)

Ulster County Resource Recovery Agency
1266 Ulster Avenue
Kingston, NY 12401
(845) 336-0600

Resources on the Internet

Organization	Internet Address
National Pollution Prevention Roundtable	http://www.p2.org/
Tellus Institute	http://www.tellus.org
Waste Reduction Resource Center	http://www.P2pays.org
NEW YORK STATE Empire State Development Services to Business NYS Department of Environmental Conservation NYS Environmental Facilities Corporation	 http://www.empire.state.ny.us http://www.dec.state.ny.us http://www.nysefc.org
U.S. ENVIRONMENTAL PROTECTION AGENCY Common Sense Initiative Design for the Environment Enviroene Office of Underground Storage Tanks Small Business Assistance Program Technology Transfer Network	 http://www.epa.gov/commonsense http://earth2.epa.gov/dfore http://earth2.epa.gov http://www.epa.gov/swerust1/ http://www.epa.gov/tnn/sbap http://www.epa.gov/tnn
U.S. DEPARTMENT OF ENERGY Pollution Prevention Information Clearinghouse	 http://epic.er.doe.gov/epic
PACIFIC NORTHWEST LABORATORIES Green Guide Pollution Prevention Resource Center	 http://www.pnl.gov/esp/greenguide/ http://www.pnl.gov/p2

Appendix

Toxicity Characteristic Leaching Procedure (TCLP)

The following are substances covered by the TCLP. The concentrations are not total amounts of the chemical in the waste, but concentrations in the TCLP leachate after the specific test is carried out.

Waste Code	Substance	TCLP Concentration Limit (mg/l)
D004	Arsenic	5.0
D005	Barium	100.0
D006	Cadmium	1.0
D007	Chromium	5.0
D008	Lead	5.0
D009	Mercury	0.2
D010	Selenium	1.0
D011	Silver	5.0
D012	Endrin	0.02
D013	Lindane	0.4
D014	Methoxychlor	10.0
D015	Toxaphene	0.5
D016	2,4-Dichlorophenoxyacetic acid	10.0
D017	2,4,5-Trichlorophenoxypro-pionic acid	1.0
D018	Benzene	0.50
D019	Carbon Tetrachloride	0.50
D020	Chlordane	0.03
D021	Chlorobenzene	100.0
D022	Chloroform	6.0
D023	o-cresol	200.0*
D024	m-cresol	200.0*
D025	p-cresol	200.0*

D026	cresol	200.0*
D027	1,4-Dichlorobenzene	7.5
D028	1,2-Dichloroethane	0.50
D029	1,1-Dichloroethylene	0.70
D030	2,4-Dinitrotoluene	0.13*
D031	Heptachlor (and its hydroxide)	0.008
D032	Hexachlorobenzene	0.13*
D033	Hexachloro-1,3-Butadiene	0.5
D034	Hexachloroethane	3.0
D035	Methyl ethyl ketone	200.0
D036	Nitrobenzene	2.0
D037	Pentachlorophenol	100.0***
D038	Pyridine	5.0**
D039	Tetrachloroethylene	0.7
D040	Trichloroethylene	0.5
D041	2,4,5-Trichlorophenol	400.0
D042	2,4,6-Trichlorophenol	2.0
D043	Vinyl Chloride	0.20

* If o-, — and p-cresol cannot be differentiated, the total cresol concentration used. The regulatory level for total cresol is 200.0 mg/l.

** Quantitation limit is greater than the calculated regulatory level. The quantitation limit, therefore, becomes the regulatory level.

*** The agency will propose a new regulatory level for this substance, based on the latest toxicity information.

These TCLP standards were published by the United States Environmental Protection Agency (EPA) on March 29, 1990. The standards were effective for fully regulated hazardous waste generators on September 25, 1990. Since March 29, 1991, small quantity and conditionally exempt small quantity generators are also required by the USEPA to handle wastes that fail the TCLP as hazardous wastes. New York State adopted the TCLP, effective January 1995. To obtain a copy of the test procedures, you can call the Methods Information Communication Exchange at (703) 821-4690, or you can e-mail them at mice@lan828.ehsg.saic.com..