

**Environmental Compliance,
Pollution Prevention and
Self-Assessment Guide
for
Vehicle Maintenance Shops**

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New York State Department of Environmental Conservation
Pollution Prevention Unit



George E. Pataki, Governor



Erin M. Crotty, Commissioner

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INTRODUCTION

This guide was originally published in March 1998 and was revised on June 2003. This revised guide:

- eliminated the section on automobile recyclers,
- updated and added information on several waste streams, and
- updated or modified regulatory requirements for all sections.

We have published a separate manual for the automobile recycling industry. The manual entitled,



“Environmental

Compliance and Pollution Prevention Guide for Automobile Recyclers,” can be downloaded from the DEC website at:

www.dec.state.ny.us/website/ppu/p2pub.html.

This vehicle maintenance compliance guide is being offered by the Pollution Prevention Unit to assist businesses and institutions in New York State with environmental regulations, better waste management and waste minimization methods. It was developed as a supplement to the manual *Environmental Compliance and Pollution Prevention for Small Quantity Generators* which is intended for any small and medium size business and institutions that generates hazardous waste. If your business or institution generates hazardous waste, that manual will give you a good overview of the hazardous waste regulations along with a summary of other environmental regulations that may pertain to your operation.

Also included in this guide is an *Environmental Self-Assessment Checklist*,

which is intended to help your business or institution achieve the maximum performance from your day to day operation as well as prevent pollution and identify opportunities for additional pollution prevention measures. For the most part, smaller businesses and institutions are trying to comply with applicable regulations and would be willing to implement pollution prevention measures if information could be presented to them in a format that is easy to understand. In an effort to assist those businesses and institutions that operate vehicle maintenance or auto body shops, DEC is offering this manual to provide information on how to properly manage wastes that are generated at these facilities.

This guide is divided into four sections:

- **Section I-** A summary of DEC regulations as they pertain to the automotive repair and maintenance industry.
- **Section II-** A summary of requirements for waste streams that may be generated by the automotive industry. In addition it will give some pollution prevention tips for each waste stream mentioned.
- **Section III** - Environmental self-assessment checklist
- **Section IV** - A resource guide that will assist the automotive industry with names and addresses of technical assistance providers.

Preventing waste is better than managing it. If your company generates less waste, you will have less waste to manage and dispose of, resulting in lower disposal fees. If your business generates less waste, you reduce your risk of spills and discharges that contaminate the environment; you also

reduce your liability risk.

When you and your employees familiarize yourselves with this guide, your vehicle maintenance shop should have a competitive advantage as far as knowing the regulations and the latest pollution prevention techniques. Keep this manual where it will be available to your employees so they can refer to it as needed.

INDUSTRY OVERVIEW

The motor vehicle and vehicle maintenance industry accounts for a substantial percentage of direct and indirect employment in the U.S. According to the EPA publication, *Profile of the Motor Vehicle Assembly Industry*, the U.S. automotive industry is the largest manufacturing industry in North America and accounts for approximately four percent of the gross national product (GNP). Also, according to the American Automobile Manufacturers Association (AAMA), the U.S. was the third largest producer of cars in the world, behind Europe and Asia respectively.

In New York State, there are approximately 27,350 vehicle maintenance or body repair shops that have the potential to generate a variety of waste streams.

The automotive industry can be divided into several categories which include:

Vehicle Maintenance Shops

Vehicle maintenance shops include such businesses as new and used car dealers, service stations, municipal garages, fleet management facilities and other similar operations. Regulation requirements for

these shops will be covered in this manual.

Auto Body Shops

Auto body shops, or collision shops, include any facility that conducts spray painting operations on vehicles. Regulations and pollution prevention opportunities for these shops will be covered in this manual.

Vehicle Manufacturing Industry

The vehicle manufacturing industry will not be discussed in this manual. This industry includes automobile manufacturers or businesses involved in motor vehicle assembly and involves such processes as metal fabricating, metal finishing and degreasing.

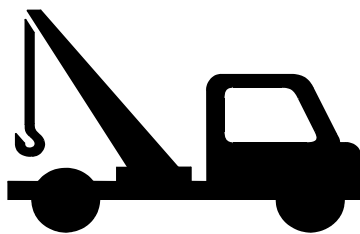
These processes could result in additional air and water regulatory requirements that vehicle maintenance shops and auto body shops would not normally need to comply with.

Metal fabricating involves shaping of metal components such as automotive parts, fenders, hubcaps, and body parts. Metal finishing is the process by which metal is prepared and properly cleaned before applying the finished coated material. The degreasing operation is used to remove cutting oils and other unwanted materials from metals so that a final coating can be applied.

Automobile Parts Stores

The automobile parts industry includes businesses that engage in the retail sale of new or used automobile parts. This industry will not be discussed in this manual unless it is also engaged in vehicle maintenance or repair.

The automotive industry is responsible for generating a variety of air and water pollution and solid and hazardous wastes.



The air issues are mainly with volatile organic compound (VOC) emissions from spray painting operations and freon from air conditioning systems. However, the issues surrounding air toxics could arise from the use of two-component urethane based coatings containing isocyanates.

The two main water quality issues are storm water management and illegal discharges from floor drains.

The solid and hazardous waste issues are, by far, the biggest concerns facing the automotive industry. There are many types of fluids generated as part of this industry sector, and it is important that vehicle maintenance shops try to use good management practices when handling wastes.

Some topics that will be covered in this manual are the following:

- Used oil
- Used antifreeze
- Parts cleaners and degreasers
- Used oil filters
- Shop towels
- Floor drains
- Storm water management
- Underground storage tanks
- Aboveground storage tanks
- Lead-acid batteries
- Tires
- Used oil-fired space heaters
- Wastewater and sludges
- Refrigerants
- Spray painting operations
- Absorbents
- Spill cleanup
- Used fuel filters
- Automobile recyclers
- Fluorescent bulbs
- Used electronics
- Air bags
- Mercury switches

Section I - Regulations Overview

Air Regulations

OPEN BURNING

New York State law prohibits the burning of rubbish for salvage and also prohibits the burning of rubbish generated on site by commercial activities.

AUTO BODY SHOPS

This section will primarily pertain to auto body shops, collision shops, or any shop conducting spray painting operations. These shops will be referred to as auto body shops.

Volatile organic compounds (VOCs) are commonly found in emissions from the automotive painting/finishing process and come from the paint mixing, paint spraying, surface preparation and equipment cleanup. Ground-level ozone, a major component of “smog” is formed in the atmosphere by reactions of VOC and oxides of nitrogen (NO_x) in the presence of sunlight. High levels of ground-level ozone can endanger public health and damage crops and forest. DEC regulates VOCs under 6 NYCRR Part 228 (Surface Coating Processes) and 40 CFR Part 59 (National Volatile Organic Compounds Emission Standards for Automobile Refinish Coatings).

The VOC content of these materials is found on their respective material safety data sheets (MSDSs). Call the product manufacturer or your distributor if you need copies of these MSDSs.

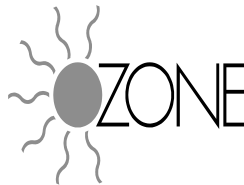
The National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 63 Subpart T, regulates

halogenated solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform, or any combination of these halogenated HAP solvents in a total concentration greater than 5 percent by weight as a cleaning and/or drying agent. The concentration of these solvents may be determined using EPA method 18, material safety data sheets, or engineering calculations.

Wipe cleaning activities, such as using rags containing halogenated solvents or spray cleaner containing halogenated solvents are not covered under the provisions of this Subpart.

Some of the more common hazardous air pollutants (HAPs) that are found in automotive painting materials are:

- 1,1,1-trichloroethane
- 1,1,2-trichloroethane
- Ethyl benzene
- Methanol
- Methylene chloride
- Methyl isobutyl ketone
- Tetrachloroethylene
- Trichloroethylene
- Toluene
- Xylene



Regulations Information
Air permit requirements can be found in 6 NYCRR Part 201, while the VOC limitations are provided in 6 NYCRR Part 228. Automotive facilities should also address the requirements of 6 NYCRR Part 226, Solvent Metal Cleaning Processes, and 40 CFR Part 63 Subpart T.

PERMITTING REQUIREMENTS

The information in this section will help you to determine if your shop will require an air permit or registration. The air permit program is regulated under Title 6 New York Codes, Rules, and Regulations, Part 201 (6 NYCRR Part 201). Your VOC control requirements will be regulated under 6 NYCRR Part 228, Surface Coating Process.

If you operate an auto body shop in New York State, you may be required to obtain an air permit or registration. All auto body shops in the **New York City Metropolitan Area** (New York City, Westchester, Rockland, Nassau, and Suffolk Counties) and the **Lower Orange County Metropolitan Area** (Towns of Blooming Grove, Chester, Highlands, Monroe, Tuxedo, Warwick, and Woodbury) must obtain an air permit or registration no matter how much surface coating (e.g., paints, solvents) they use. Shops outside the New York City Metropolitan Area must determine if they need an air permit or registration and, in addition, they should determine if Part 228 applies to them.

If your shop is not exempt from 6 NYCRR Part 201, as described below, your shop will need to obtain a Minor Facility Registration, State Facility Permit, or a Title V Permit.

Exemptions

If your auto body shop is **not located in the New York City Metropolitan Area or Lower Orange County Metropolitan Area**, and you meet the following conditions, you are exempt from 6 NYCRR Part 201 registration or permitting requirements and from 6 NYCRR Part 228 VOC requirements if:

- Your facility uses fewer than 25 gallons per month collectively of paints, lacquers, makeup solvents, and cleanup solvents, and;

- Your facility performs all abrasive cleaning and surface coating operations in an enclosed building and the emissions are exhausted to appropriate emission control devices.

Minor Facility Registration

New York City Metropolitan Area

Businesses whose total annual actual VOC emissions are not greater than 12.5 tons per 12 month period; whose individual actual HAP emissions are not greater than 5 tons per 12 month period; whose combined HAP emissions are not greater than 12.5 tons per 12 month period or 5 tons of total VOC emissions for those sources seeking a cap to avoid the applicable requirements of 6 NYCRR Section 228.7.

All Other Areas

Businesses whose total annual VOC emissions are greater than 25 tons per 12 month period; whose individual actual HAP emissions are not greater than 5 tons per 12 month period; whose combined HAP emissions are not greater than 12.5 tons per 12 month period or 5 tons of total VOC emissions for those sources seeking a cap to avoid the applicable requirements of 6 NYCRR Section 228.7.

NOTE:

Sources subject to 40 CFR Part 63 Subpart T, regulations for metal degreasing, and emit one or more of the following: methylene chloride, methyl chloroform, chloroform, trichloroethylene, perchloroethylene, can obtain a registration and are deferred from Title V permitting until December 9, 1999. These sources must submit a Title V permit by December 9, 2000.

State Facility Permit

New York City Metropolitan Area

Businesses whose actual VOC emissions are under 25 tons per year but over 12.5 tons per year and require a permitting cap to limit them as such; or businesses who are subject to 6 NYCRR Section 228.7, Table 1, and need to remain below 10 tons per year actual emissions of VOC. Businesses whose individual and combined HAP emissions are below 10 tons and 25 tons per year, respectively.

All Other Areas

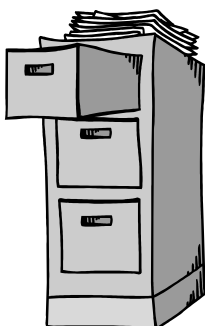
Businesses whose actual VOC emissions are under 50 tons per year but over 25 tons per year and require a permitting cap to limit them as such; or businesses who are subject to 6 NYCRR Section 228.7, Table 1, and need to remain below 10 tons per year actual emissions of VOC. Businesses whose individual and combined HAP emissions are below 10 tons and 25 tons per year, respectively.

Title V Facility Permit

Businesses who meet the major source applicability thresholds as defined by 6 NYCRR Part 201-2.1. Businesses subject to 40 CFR Part 63 Subpart T see note under minor facility registrations on page 5.

RECORD KEEPING

Generally speaking, just about all auto body shops in upstate New York are exempt from minor facility registration or air permitting requirements. However, you should maintain records of your VOC emission rates even if you use fewer than 25 gallons per month.



By keeping these records, you will:

- Show proof of compliance with applicable DEC air requirements.
- Be able to determine if your shop needs any registrations or permits.
- Be prepared to provide information to any Regional DEC inspectors if, and when, they call to visit your shop.
- Help your shop toward implementing a pollution prevention program.

One of the easiest ways to keep records of your VOC emissions is by keeping your purchase order invoices for all the paints, lacquers, solvents, or additives used by your shop. Don't forget to obtain a copy of the MSDS for each of the materials that you purchase. If requested, most manufacturers will fax or mail copies of MSDSs within a day or two.

HOW TO CALCULATE YOUR VOC EMISSIONS

In order to determine what type of registration or permit your shop requires, you will need to know your total VOC emissions. To calculate your VOC emissions, you need to know your total annual usage of paints, lacquers, makeup solvents, and cleanup solvents. As discussed in the previous section, this information can be obtained from your purchase order records. Also, if any other additives or solvents are used in your shop that contain VOCs, such as isopropyl alcohol, the emissions from these materials should be accounted for in your calculations.

VOCs are equal to the annual usage rate of the materials applied, times the VOC content at the time of application.

Here's how to calculate your total annual VOC emissions for paints, lacquers, makeup solvents, and cleanup solvents:

Multiply your annual usage rate (gallons) of paints, lacquers, makeup solvents, and cleanup solvents by the density in pounds per gallon (from MSDS or technical data sheet) of paints, lacquers, makeup solvents, and cleanup solvents by the weight fraction of VOCs in paints, lacquers, makeup solvents, and cleanup solvents.

Note: Density = specific gravity X 8.34 lbs./gal. Weight fraction is the percent by weight divided by 100 which can be obtained from the MSDS or technical data sheet.

Here is an example of how an auto body shop calculated some of their VOC emissions:

Example: Mr. Fix It Auto Body Shop uses 130 gallons a year of paints and lacquers, 52 gallons/year of thinners, and 20 gallons/year of cleanup solvents. The Material Safety Data Sheets (MSDSs) lists the VOC content at: paints and lacquers - 5.0 pounds/gallon, thinners - 6.5 pounds/gallon, and cleanup solvents - 7.0 pounds/gallon.

VOC = Annual Usage x VOC Content at Application

Paints and Lacquers

Annual Usage = 130 gallons
 VOC Content = 5.0 pounds/gallon
 VOC = (130 gallons/year) (5.0 pounds/gallon)
VOC = 650 pounds/year

Thinners

Annual Usage = 52 gallons
 VOC Content = 6.5 pounds/gallon

VOC = (52 gallons/year) (6.5 pounds/year)
VOC = 339 pounds/year

Cleanup Solvents

Annual Usage = 20 gallons
 VOC Content = 7.0 pounds/gallon
 VOC = (20 gallons/year) (7.0 pounds/gallon)
VOC = 140 pounds/year

Total VOC Emissions

Mr. Fix It Auto Body Shop's total annual VOC emissions is 650 + 339 + 140 = 1129 pounds.

In addition to the paints, lacquers, thinners, and cleanup solvents, your shop will probably be working with primers, multi-coating, precoat, and specialty coatings. You should check the MSDS for the VOC content of these materials.

If you are a body shop with fewer than 100 employees and need assistance in computing your VOC emissions, finding out what registration/permits you need, or whether 6 NYCRR Part 228 applies to your shop, call the Small Business Assistance Program (SBAP) at (800) 780-7227. The SBAP is a non-regulatory program that provides *free* confidential technical assistance to help small businesses achieve voluntary compliance under the Clean Air Act.

Water Regulations

PERMITTING REQUIREMENTS

If your shop directly discharges wastewater into surface or groundwaters, then you are required to obtain a State Pollutant Discharge Elimination System (SPDES) Permit. These permits are regulated under 6 NYCRR Parts 750-758.

A SPDES permit will list all pollutants your facility is discharging into surface or groundwater that DEC determines necessary to address. It may contain limits, action levels or monitoring for each pollutant. Limits applied to your discharge will be the more stringent of either technology-based limits (sometimes referred to as best available technology or BAT limits), or water quality limits. Water quality limits are calculated according to the classification and ambient standards assigned to the specific water body receiving the discharge. All surface waters and groundwaters in NYS are classified according to the best usage, e.g., drinking water or fish propagation.

To make certain you are complying with your permit limits, you may be required to sample your discharge and submit monitoring reports. Contact your regional DEC office for information on obtaining a SPDES permit.

Regulations Information

It is illegal to discharge directly to surface or groundwaters without a SPDES permit. Industrial discharges to septic systems are also illegal.

PRETREATMENT PROGRAM

In most instances, vehicle maintenance shops, auto body shops, automobile recyclers, and scrap metal yards will require some form of pretreatment prior to discharge into a municipal sewer system. If you discharge wastewater directly into a municipal sewer system, you should check with your local publicly owned treatment works (POTW) for discharge requirements. There may be certain restrictions, in addition to pretreatment requirements, for the discharge of wastewater into POTWs.

Remember

Before discharging antifreeze, oil and grease, solvents, acids, alkalides, or any other wastes generated at your shop, check with your local POTW.

NONPOINT SOURCE PROGRAM

If you are involved in local passenger transportation or involved in trucking and warehousing you might have a nonpoint source discharge that could be regulated by a SPDES general permit.

Nonpoint source discharges include: inactive hazardous waste sites, leaking above ground or underground storage tanks, contaminated soil, septic systems, and storm water run-off.

Stormwater Management

In 1987 under the Clean Water Act, EPA established a program to address storm water discharges associated with industrial activity. The term “storm water discharge associated with industrial activity” refers to a storm water discharge from one of 11 categories of industrial activity defined in 40 CFR 122.26. Six of the categories are

defined by SIC codes while the other five are identified through narrative descriptions of the regulated industrial activity. The category that pertains to businesses discussed in this manual is:

- **Category viii:** Facilities classified as SIC code 40-railroad transportation; SIC code 41-local passenger transportation; SIC code 42-trucking and warehousing (except public warehousing and storage); SIC code 43-U.S. Postal Service; SIC code 44-water transportation; SIC code 45-transportation by air; and SIC code 5171-petroleum bulk storage stations and terminals. It should be noted that the federal National Pollutant Discharge Elimination System (NPDES) regulations state that: “Only those portions of the facility that are either involved in vehicle maintenance (including rehabilitations, lubrication, mechanical repairs, fueling, and painting), equipment cleaning operations, airport deicing operations, or which are otherwise identified in [...the other groups of activities...] are (discharges) associated with industrial activity.

If your business is in category viii, you must:

- First, develop a “**Storm Water Pollution Prevention Plan.**” In order to do this, you must obtain a copy of the *SPDES General Permit for Storm Water Discharges*. You can get a copy by calling your DEC Regional office (see Section IV for the location of your regional office). The Storm Water Pollution Prevention Plan can be written by yourself or you can hire a consultant.
- Second, submit a “Notice of Intent,” Transfer or Termination (NOITT) to:

Storm Water, General Permits, NYSDEC, Division of Water, Bureau of Water Permits, 625 Broadway, Albany, New York 12233-3505.

Call DEC at (518) 402-8098 if you have any questions on the storm water management program.

SAFE DRINKING WATER ACT

The Safe Drinking Water Act (SDWA) authorizes EPA to protect underground sources of drinking water through the control of underground injection of liquid wastes. EPA accomplishes this by the federal Underground Injection Control (UIC) program. Under this program EPA requires owners and operators of facilities that discharge non-sanitary wastewaters to groundwater to (1) either close the cesspool, drywell or septic system, or (2) obtain a permit under the UIC program. This section is included to let the vehicle maintenance industry be aware that floor drains should not have a direct discharge to the ground or groundwater. This could be considered an underground injection and would constitute a violation of the SDWA unless authorized by a UIC permit. For further information on floor drains, see Section III.

Hazardous Waste Regulations

Reminder

If you do not have a copy of the manual *Environmental Compliance and Pollution Prevention for Small Quantity Generators*, you can get your copy by calling DEC at (518) 402-9469.

The New York State hazardous waste regulations are covered under 6 NYCRR Parts 370-374 and 376 and apply to any business in the automotive industry that generates hazardous waste. This includes,

but is not limited to, vehicle maintenance shops, auto body shops, automobile recyclers, and service stations.

No matter what wastes you dispose of, it is your responsibility to determine the type and quantity of hazardous waste you generate and properly manage it. Since disposal fees for hazardous waste can be very expensive, it would be in your best interest to practice good hazardous waste management. Call the Bureau of Hazardous Waste Regulations at (518) 402-8633 for assistance with managing your hazardous waste. Also, refer to Section IV for more information on technical assistance providers.

Here are some hazardous wastes commonly generated by auto body shops and vehicle maintenance shops:

- Heavy metal wastes
- Ignitable wastes
- Solvent wastes
- Toxic wastes
- Still bottoms
- Paint wastes
- Acids/bases
- Rags

HAZARDOUS WASTE DETERMINATION

If you generate waste at your facility, you should determine which wastes are hazardous. As a good management practice, you should always keep solid waste separate from your hazardous wastes. This will reduce or eliminate the mixing and/or contamination of wastes which could increase your disposal costs.

One way to make a hazardous waste determination is to see if your waste is listed in the New York State regulations, 6 NYCRR Part 371. If your waste is listed in Part 371, it is automatically a hazardous waste. Even if your waste is not listed, it would still be a hazardous waste if it exhibits one of the hazardous waste

characteristics of ignitability, corrosivity, reactivity, or toxicity found in 6 NYCRR Part 371 and described further below.

You can also apply your knowledge of the waste to determine if it exhibits a hazardous characteristic. You must have a basis for making this determination such as material safety data sheets (MSDSs) or past analytical results. MSDSs may contain important information such as ignitability (flashpoint), corrosivity, or reactivity for substances or chemicals that you use in your shop. Please note that MSDSs only describe the new product. During use, a non-hazardous product could become hazardous by mixing or contamination.

KNOWLEDGE

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 if your determination is not correct.

The term hazardous waste determination will be mentioned throughout section III of the manual. If your vehicle maintenance shop generates hazardous waste, you should understand the term since it applies to most of the waste streams mentioned in that section.

If you generate a waste at your shop that is not listed in 6 NYCRR Section 371.4 of the hazardous waste regulations, you must then determine if that waste is hazardous for any of the following four characteristics: ignitability, corrosivity, reactivity, and toxicity.

Ignitability

If your liquid waste has a flashpoint of less than 140° F, it is hazardous. Examples include: certain parts cleaners, paint solvents, waste kerosene, and waste gasoline.

Corrosivity

If your waste has a pH of 2.0 or lower, or a pH of 12.5 or higher, it is hazardous. Examples include: lead-acid batteries, certain rust removers, caustic parts degreaser, and acid or alkaline cleaning solutions.

Reactivity

If your waste is unstable and undergoes violent chemical reaction spontaneously or reacts violently with air or water, it is hazardous.

Toxicity

If your waste is not ignitable, corrosive or reactive, then it might have to be tested for toxicity according to the methods explained in 6 NYCRR Part 371.3(e) or in the federal regulations, 40 CFR Part 261. Examples include: certain painting wastes, paint booth filters, floor sweepings, used shop towels or rags, oily wastes, oil absorbents, floor drain and sump sludge, and used antifreeze.

A toxicity test is done by having a representative sample of the waste tested by a certified lab where it is analyzed using a toxicity characteristic leaching procedure (TCLP) test. To download a list of certified labs in New York State, go to the website: www.wadsworth.org/labcert/elap/elap.html. If any of the allowable levels are exceeded, then the waste is a hazardous waste.

HAZARDOUS WASTE CATEGORIES

Once you have determined that your business generates hazardous waste, then it is necessary to determine your hazardous waste generator-category. Depending on the quantity and type of waste

Did You Know?

As a CESQG, you can transport up to 220 lbs per month of your own waste to a NYS approved facility.

generated, and the amount of waste stored, you will be in one of the following categories: Conditionally Exempt Small Quantity Generator (**CESQG**), Small Quantity Generator (**SQG**), or Large Quantity Generator (**LQG**).

Conditionally Exempt Small Quantity Generator

A conditionally exempt small quantity generator (CESQG):

- Generates no more than 220 pounds (approximately 26 gallons) of hazardous waste per calendar month,
- Generates no more than 2.2 pounds of acute hazardous waste per calendar month, and
- Stores no more than 2,200 pounds of hazardous waste or 2.2 pounds of acute hazardous waste on site at any time.

A CESQG Must Comply With The Following:

- Identify its hazardous waste.
- Comply with storage quantity limits.
- Ensure proper treatment and/or disposal of its waste.
- Ensure delivery of the waste to a treatment or disposal facility by bringing no more than 220 pounds of hazardous waste to the authorized treatment or disposal facility; or by having the waste transported by a 6 NYCRR Part 364 permitted hazardous waste transporter.

A CESQG must ensure delivery of its hazardous waste to an offsite treatment or disposal facility that is:

- A state or federally regulated hazardous waste management treatment, storage or disposal facility.
- A facility permitted by NYS to manage municipal or industrial solid waste and authorized to receive CESQG hazardous waste.

- A facility that uses, reuses or legitimately recycles the waste.
- A permitted household hazardous waste collection facility that accepts CESQG waste. See Section IV for a list of participating municipalities.

Small Quantity Generator

A small quantity generator:

- Generates between 220 pounds and 2,200 pounds of hazardous waste per calendar month,
- Generates less than 2.2 pounds of acute hazardous waste per calendar month, and
- Stores less than 13,200 pounds of hazardous waste or 2.2 pounds of acute hazardous waste on site at any time.



A SQG Must Do The Following:

- Obtain an EPA Identification Number by calling EPA at (212) 637-4106.
- Use a hazardous waste manifest form.
- Use a 6 NYCRR Part 364 permitted hazardous waste transporter.
- Limit on-site storage. Waste must be shipped within 180 days of accumulation (or 270 days if the treatment, storage, or disposal facility is greater than 200 miles away.)
- Follow emergency preparedness and response requirements.
- Adhere to land disposal restrictions.

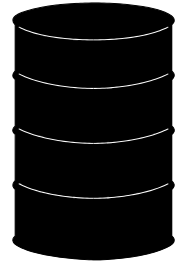
Small quantity generators **cannot** transport their own waste. They must use a 6 NYCRR Part 364 permitted transporter.

Storing Hazardous Waste

- Keep the waste in a separate storage area which is labeled “**Hazardous Waste Storage Area.**” Containers holding ignitable or reactive hazardous waste should be stored at least 50 feet

from the property line.

- Label all containers properly. Containers should be clearly labeled “**Hazardous Waste**”. Also, signs indicating “**Do Not Enter**” and “**No Smoking**” should be clearly posted.
- Mark each container with the date you began collecting waste in that container.
- Use proper containment (pallets with built-in spill containment or berms) in case of leaks.
- Keep containers closed when not in use.
- Keep containers in good condition and periodically inspect for leaks, cracks or rust.
- Label containers with the name of the waste.



The above is a summary of the requirements for SQG’s. For more information on small quantity generators, request a copy of the manual, *Environmental Compliance and Pollution Prevention for Small Quantity Generators* by calling (518) 402-9163. Complete requirements for SQG’s can be found in 6 NYCRR Parts 370-374 and 376 or you can download a copy from the DEC website at:

www.dec.state.ny.us/website/dshm/regs/370parts.htm

Large Quantity Generator

If the facility generates more than 2,200 lbs. of hazardous waste or 2.2 pounds of acute hazardous waste per month, or store more than 13,200 pounds of hazardous waste, or 2.2 pounds of acute hazardous waste, including hazardous wastes from other operations on the same site, then the facility is a Large Quantity Generator (LQG). Large Quantity Generators are fully regulated under 6 NYCRR Parts 370-374 and 376 and are not covered in this manual. LQGs can obtain a copy of the regulations

by calling (518) 402-8633, or you can download a copy from the DEC website at: www.dec.state.ny.us/website/dshm/regs/370parts.htm

UNIVERSAL WASTE RULES

To streamline the hazardous waste regulations for hazardous wastes that are generated by large numbers of sources in relatively small quantities, USEPA issued the Universal Waste Rule in 1995. The universal waste regulations govern the collection and management of widely generated wastes. In NYS, hazardous wastes which can be managed as universal waste currently include batteries, certain pesticides, thermostats, and lamps. These 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. This approach removes these wastes from municipal landfills and incinerators, which provides stronger safeguards for public health and the environment.

Batteries

Batteries included are nickel-cadmium (Ni-Cd), certain lithium, small sealed

lead-acid batteries, and batteries that exhibit hazardous waste characteristics. These may be found in many common items in the business and home, including electronic equipment, mobile telephones, portable computers, and emergency backup lighting.

Mercury Thermostats

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

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.

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

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. Universal wastes are not counted for the purpose of determining generator category, and need not be reported on your hazardous waste report.

PROPER HANDLING AND STORAGE

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 handles 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; employee training, and properly labeling containers. A large quantity handler of universal waste handles 5,000 kg (11,000 lbs) or more of total universal wastes on site at any time. Requirements include EPA notification; packaging in a way to minimize breakage; immediately cleaning up any leaks or spills; employee training, and properly labeling containers; and complying with record keeping and reporting requirements. **Both 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 if transporting more than 500 lbs of total universal waste in any shipment. Common carriers can transport up to 500 lbs of universal waste in any shipment.

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.

LAMP 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. Generators who wish to use one of the latter two exemptions should seek specific guidance from the Bureau of Hazardous Waste Regulation at (518) 402-8633. 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.

Solid Waste Regulations

In 1988 the Solid Waste Management Act put emphasis on waste reduction, reuse and recycling as primary solid waste management methods.

Every vehicle maintenance shop should be aware of what items they are discarding and how they are disposing of them. The best way to do this is to develop a solid waste management disposal plan for your shop. The first step in developing your plan is to conduct a waste audit of your business. A waste audit will show where you can improve your purchasing practices and help identify potential waste reduction and recycling options. Also, a waste audit will help you get accurate information on the nature and quantity of your waste. Businesses that implement waste reduction, reuse and recycling have benefitted by reducing costs.

Here are some waste reduction and recycling strategies your company can adopt:

- Use reusable shipping containers and pallets.
- Use minimal or reusable packaging.
- Purchase reusable products and supplies.
- Recycle your office paper.
- Make sure your employees practice waste reduction and recycling methods.

If you need a copy of the *Waste Audit Reference Manual* call the DEC Bureau of Waste Reduction & Recycling at (518) 402-8678.

Materials generated on or off-site which have no recycling value must be disposed of at a permitted solid waste management facility.

Nonmetallic materials used to construct vehicles are considered solid wastes if they are not destined for recycling. These materials cannot be disposed of at the

dismantling facility by burial or incineration.

Petroleum and Chemical Bulk Storage Regulations

EPA TANK DEADLINE

As of December 22, 1998, all underground storage tanks (USTs) greater than 110 gallons (except those tanks used for on-site heating oil) should have been upgraded to meet EPA standards for corrosion protection and overfill. Tanks that weren't properly upgraded should be closed. If your facility has not upgraded or closed your underground storage tanks to meet EPA requirements you should contact your regional DEC office.

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.

DEC TANK REQUIREMENTS

In addition to the EPA upgrading requirements for underground tanks as discussed above, DEC has established standards for both above ground and underground petroleum storage facilities with a capacity of more than 1,100 gallons. (See 6 NYCRR 612-614). Further, all underground tanks and any stationary aboveground tanks of 185 gallons or more which store a hazardous substance and non-stationary tanks storing 2,200 pounds or more of a hazardous substance, or a mixture thereof, for a period of ninety days or more, are subject to the technical standards of 6 NYCRR Parts 598 and 599. Antifreeze (ethylene or propylene glycol) is a regulated hazardous substance.

Both petroleum and hazardous substance tanks must be registered with DEC. For more information and a copy of these regulations, call (518) 402-9549.

STORAGE REQUIREMENTS

Any tank storing used oil, no matter what the size, is subject to petroleum bulk storage requirements, including registration with DEC. Drums do not have to be registered. You can obtain a copy of the registration form from our website at:

[www.dec.state.ny.us/
website/der/bulkstor/forms/index.html](http://www.dec.state.ny.us/website/der/bulkstor/forms/index.html)

If you are storing non-hazardous antifreeze in a tank greater than 185 gallons, the chemical bulk storage program requires that this tank be registered. Drums that are used to store non hazardous antifreeze do not have to be registered. You can obtain a copy of the registration form from our website at the address listed in the above paragraph.

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 presumptive evidence of being 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.

CHEMICAL BULK STORAGE PROGRAM

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.

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.

PETROLEUM BULK STORAGE PROGRAM

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.

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.

Hazardous Substances

Associated with each regulated hazardous substance under Part 597 is a Reportable Quantity (RQ), one for a release to air and one for a release to land/water. Appropriate parties are required to take prompt remedial action to protect human health and the environment in the event of a spill. A spill that exceeds the RQ but is contained by effective secondary containment, and which is cleaned up within 24 hours, is not reportable unless it could result in a fire or explosion or pose a health risk to adjacent parties. When a spill cannot be contained, it becomes a release to the environment. When a release exceeds the RQ for that substance, the facility must report the release to the DEC Spill Hotline (800) 457-7362 within two hours of discovery. Part 595 applies to all releases, including those from chemical process tanks, chemical fires, explosions, and non-registered facilities.

Petroleum Products

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

1. The spill is known to be < 5 gallons.
2. The spill is contained and under the control of the spiller.
3. The spill has not and will not reach the State's water or any land.
4. 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.

Section II - Waste Stream Management and Pollution Prevention

(If you have not read section II of this manual, *Regulations*, you should do so in order to familiarize yourself with the requirements and conditions for hazardous waste generators).

To assist the vehicle maintenance industry in complying with environmental requirements, this section discusses some best management practices for the waste streams that are typically generated in this industry. Each waste stream listed will give the reader an interpretation of the DEC regulatory requirement and the preferred waste management techniques that shops should use when disposing of their waste. If you require more information, refer to Section I, the *Regulations Overview*.

Also included in this section are some pollution prevention methods that can be used to minimize each of the waste streams discussed. The term pollution prevention (P2) refers to the elimination or reduction in volume or toxicity of waste prior to generation or prior to recycling, treatment or release to the environment. Pollution prevention can also be referred to as waste reduction, waste minimization, or source reduction. An effective pollution prevention program can:

- Reduce the risk of criminal and civil liability.

- information about the material.
- Inspect all shipments and return all unacceptable or damaged materials; especially those items that could become hazardous wastes once they are signed for.
- Practice preventive maintenance of equipment.
- Cover solvent tanks when not in use to reduce evaporation.
- Improve purchasing and inventory methods to ensure that materials do not exceed shelf life. Date all raw materials and chemicals and use the first-in, first-out method of inventory control. Expired and outdated materials that can't be used create waste.
- Turn off electrical equipment such as lights and copiers when not in use.

Remember, the first step in establishing a pollution prevention program at the facility is to implement employee awareness. One way this can be achieved is by offering training sessions on regulatory compliance and waste minimization so that the employees can familiarize themselves with the proper waste management strategies.

Even if the shop only generates a small amount of waste, keep in mind that there are thousands of shops that generate a small amount. Together, these shops generate a large amount of waste that must be managed properly.

All hazardous waste generators that are required to manifest their hazardous waste are subject to the Environmental Conservation Law (ECL) 27-0907. These generators must sign a certification on the manifest form that, “the generator of hazardous waste has in place a program to reduce the volume or quantity of toxicity of such waste to the degree determined by the generator to be economically practical.” A good source of guidance is the “Hazardous Waste Reduction Plan - Guidance Document,” available from the Hazardous Waste Reduction Section of the Division of Solid and Hazardous Materials at (518) 402-8610.

The following discussions by waste stream will include a summary of the regulatory requirements for that particular waste. If the requirements state that a hazardous waste determination must be made, then you will have to determine if your waste can be disposed of as a hazardous waste or as a solid waste. If you need assistance in determining how to manage any of the following waste streams, you can call the Bureau of Hazardous Waste Regulation at (518) 402-8633.

Absorbents and Floor Dry

REGULATORY REQUIREMENTS

A hazardous waste determination must be made on all absorbent pads or floor dry material that is used to clean up spills. If your facility has a spill that could be harmful to public health or the environment, you must contact DEC immediately at (800) 457-7362.

POLLUTION PREVENTION TIPS

Good housekeeping practices are the best way to minimize spills. The fewer spills that occur, the less absorbents, floor dry or other absorbent material will be needed to clean up these spills. Here are some tips to help you prevent spills at your shop:

- Train your employees. Since employees are the ones who create the spills, make sure that each employee is taught the importance of spill prevention.
- If you must use absorbents, make sure to purchase absorbent material that can be reused. Absorbent “socks” for example, can be used about 10 times.
- Make sure all of your tanks or drums that contain liquids have some kind of containment in case of a leak or spill.
- After wiping up a spill with absorbents or mop, drain excess liquids into the waste container for that particular waste. For example, if you are cleaning up an antifreeze spill, squeeze the excess antifreeze in the container marked *ANTIFREEZE*.

- Use shop towels to wipe up small spills, then send your shop towels to be laundered.
- You may want to consider an award program for employees that keep their work areas clean or for workers who come up with good pollution prevention ideas.

Alert

Before discarding absorbents or floor dry into dumpsters, make sure you are complying with all the necessary DEC regulations.

Aerosol Cans

REGULATORY REQUIREMENTS

Aerosol cans that have not been emptied can be considered a hazardous waste due to the leftover propellant. In addition, the material inside the can, such as carburetor cleaner, brake cleaner, or degreasers, can be hazardous. Therefore, if aerosol cans are not empty, a hazardous waste determination must be made before disposal.

POLLUTION PREVENTION TIPS

Here are some tips on the management of aerosol cans:

- Replace aerosol cans by using refillable spray canisters.
- If aerosol cans are used, utilize all the material and propellant in the can. Cans that are empty and are at or near atmospheric pressure, are no longer considered hazardous wastes.
- Use the contents of each can before starting a new one.
- If you get a defective aerosol can that can't be used, try to return it to your vendor, otherwise, handle it as

hazardous.

- Recycle empty cans or bring them to a scrap metal yard.
- Buy a puncturing system that will render all cans empty.

Antifreeze

REGULATORY REQUIREMENTS

Antifreeze usually contains ethylene or propylene glycol, corrosion inhibitors, and foam controllers, and is usually diluted to 50 percent concentration with water in motor vehicles. Ethylene or propylene glycol, the main ingredients of antifreeze, are not, when used, listed hazardous wastes. Antifreeze may become hazardous when contaminants such as heavy metals, fuel, and solvents get mixed in when circulating through the engine and cooling systems of the automobile. Therefore, if you are disposing of antifreeze, a hazardous waste determination must be made unless the used antifreeze is recycled by a totally enclosed system that hooks up to the vehicle's coolant system, and in which no used antifreeze exits the system.

Recycling of Antifreeze

Here are some tips about recycling antifreeze:

- If your shop reuses its antifreeze that is recycled on site, you can save money on disposal fees.
- If a mobile unit recycles your antifreeze at your shop, you will be eligible for a recycling exemption provided that the mobile unit complies with the provisions for proper containment as stated in 6 NYCRR 373-1.1(d)(1)(vii)(a-b) and 373-2.9(f). The storage of hazardous waste prior to recycling is not exempt from the

hazardous waste requirements.

Storing Antifreeze

Storage of new or non-hazardous antifreeze is regulated by the DEC Chemical Bulk Storage Program (CBS) because it is classified as a hazardous substance. If virgin or used non-hazardous antifreeze is stored in a tank with a capacity of 185 gallons or greater in an above ground tank, or any amount is stored in an underground tank, the site must register with DEC and comply with CBS regulations. As with the storage of used oil, secondary containment is required for the storage of antifreeze in above ground tanks.

POLLUTION PREVENTION TIPS

Here are some tips on managing your antifreeze:

- Segregate your antifreeze from other wastes.
- Store antifreeze in closed containers labeled "ANTIFREEZE."
- When removing good antifreeze due to servicing, save it and return it to the system when repairs are finished. Also, when removing good antifreeze, use drip pans and try to avoid spills.
- Consider the purchase of an antifreeze recycling unit. It has been proven that recycled antifreeze does perform as well as new antifreeze as long as the inhibitors are replaced and the antifoaming agent is added.
- Do not discharge antifreeze to septic tanks or to the outdoors. Prior approval from your local publicly owned treatment works is needed in order to discharge antifreeze to the sewer system.

ALERT
It is illegal and dangerous to discharge antifreeze to septic systems or to outdoors.

- Make sure your antifreeze storage tanks or drums have proper containment in case there is a leak or spill.

Floor Drains and Wastewater

REGULATORY REQUIREMENTS

As discussed in Section I, the Environmental Conservation Law prohibits the discharge of pollutants into surface or groundwaters without a State Pollutant Discharge Elimination System (SPDES) Permit. The Safe Drinking Water Act, under the Underground Injection Control program administered by EPA was designed to prevent contamination of groundwater resulting from operation of injection wells. In addition, the disposal of hazardous waste illegally is a violation of the federal Resource Conservation and Recovery Act (RCRA).

Wastewater from automotive shops may contain heavy metals, antifreeze, solvents, oil and grease, gasoline, and other materials that could be hazardous.

If you have floor drains in your shop, you must meet the following requirements:

- Make sure they are connected to a public sewer system. In most cases floor drains may be connected to a publicly owned treatment works (POTW), however, the owner should refer to the Local Codes Enforcement Officer and the Sewer Use Ordinance before making any new connections. Some municipalities restrict floor drains from being connected to the sewer system depending on the type of operation. Also, you may be required by your POTW to connect an oil/water separator between the floor drains and the sewer system. Oil/water separators

should be checked on a monthly basis to make sure they are working properly. This includes cleaning out the sludge annually, test it for toxicity and then dispose of it properly. If you are a conditionally exempt small quantity generator (CESQG), you can transport this sludge to an approved facility. This includes transporting dried sludge to your local landfill. Prior approval is needed. See Section IV for locations of the household hazardous waste collection facilities.

- Make sure they are connected to some kind of holding tank where the wastewater can be pumped out and treated or disposed properly. All wastewater should be hauled away by a DEC 6 NYCRR Part 364 permitted waste transporter to avoid any liability.

POLLUTION PREVENTION TIPS

Wastewater is generated at vehicle maintenance shops from washing floors and vehicles. By minimizing the amount of wastewater that is generated, you can reduce the amount of wastewater and sludge that must be managed or discharged. Here are some tips that could help you minimize your generation of wastewater:

- Use dry floor cleaning methods. This includes sweeping and vacuuming.
- Train employees to use water efficiently.
- Use only non-toxic soaps to clean floors and vehicles instead of hazardous materials.
- Prevent drips and spills from reaching the floor.
- If a small spill does occur, clean it immediately with shop towels or mops. This was discussed in the shop towel section. Never clean spills by hosing them down with water.
- Perform vehicle maintenance work in areas where there are no floor drains. If

floor drains are present, seal them off during work to prevent spills from entering the drains.

- Never have floor drains where hazardous materials are stored.
- If you collect your wastewater in a holding tank, try to reuse it whenever possible.
- You may want to consider buying a water recycling unit in order to treat your wastewater on site.
- If your wastewater is nonhazardous, you may want to purchase evaporating equipment to evaporate your wastewater. It should be noted that evaporators may require an air permit or registration, and evaporator bottoms may be a hazardous waste.
- Wash your vehicles at an offsite commercial car wash.
- Don't use degreasing solvents to clean engines. Most engine degreasers are hazardous and should not be discharged into a POTW. Even if you use nonhazardous degreasers, the oil and grease concentration may exceed the limit allowed by your POTW.
- Brush snow and ice off vehicles before bringing them into the shop for service.

Fluorescent Bulbs and Other Hazardous Lamps

REGULATORY REQUIREMENTS

Currently, most waste fluorescent bulbs (referred to hereafter as “fluorescent lamps”) 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 (HID), 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 regulatory scheme or as universal wastes. 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. If a handler of hazardous waste lamps fails to comply with the Universal Waste standards, they may be considered to be in violation of existing hazardous waste laws and regulations.

Most facilities in the automotive industry are considered small quantity handlers of universal waste defined as handlers of less than 5,000 kg or 11,000 lbs. of total universal wastes (hazardous batteries, certain hazardous pesticides, hazardous thermostats, or hazardous lamps, calculated collectively) on site at any time. The requirements for small quantity handlers of universal waste (including fluorescent lamps) require that lamps:

- be packaged in a way to minimize breakage,
- any broken lamps are immediately cleaned up,
- containers are properly labeled, and
- broken bulbs should be managed as hazardous waste.

More information on handling of fluorescent lamps and universal wastes can be found at our web site at: www.dec.state.ny.us/website/dshm/hzwtstman/bulbs2.htm. You can also contact the Bureau of Hazardous Waste Regulation at (518) 402-8633.

Gasoline

REGULATORY REQUIREMENTS

Waste gasoline is regulated as a hazardous waste if it is sent for disposal. It is not considered a hazardous waste if it is recycled or burned as a fuel. However, you can not mix gasoline with used oil to burn in used oil space heaters. Waste gasoline should be stored in properly grounded, labeled and closed containers on an impermeable surface with proper containment. For more information on the hazardous waste regulations, download a copy of the manual, “Environmental Compliance and Pollution Prevention Guide for Small Quantity Generators” at the DEC website:

www.dec.state.ny.us/website/ppu/p2pub.html or call the Pollution Prevention Unit at (518) 402-9469.

Lead Acid Batteries

REGULATORY REQUIREMENTS

If your lead acid batteries are recycled, they do not have to be managed as hazardous waste, but are still subject to limited hazardous waste regulations. If lead acid batteries are not recycled, they must be managed under the traditional regulatory scheme as non-exempt hazardous waste.

POLLUTION PREVENTION TIPS

Here are some tips on storing lead acid batteries:

- Indoor storage is recommended for lead-acid batteries.
- Store batteries on an acid-resistant rack or tub.

- Batteries stored outside should be stored on impermeable surfaces and should have secondary containment. Also, it is recommended that batteries be covered to prevent acid run-off.
- Keep a neutralizing agent such as baking soda nearby, in case of a leak or spill. If a spill does occur, the waste must be treated as a hazardous waste.
- When stacking batteries, make sure they are stored so that any fluid from leaking batteries will not be released to the environment.
- Electrolyte fluid in spent batteries contains a sufficient quantity of lead to make it a hazardous waste. This fluid if discharged onto the ground will frequently make the soil which absorbs it a hazardous waste.
- Use an authorized recycler.

Painting Operations

REGULATORY REQUIREMENTS

If you operate a body shop and conduct spray painting operations, a hazardous waste determination must be made on waste paint, solvents/thinners, paint sludge, primer waste, and spray booth filters. The paints and paint sludges may be hazardous if they contain heavy metals, such as arsenic, lead and chromium. The solvents may be characteristically hazardous due to their ignitability or they could be a listed hazardous waste. Also, many primers, lacquers, and enamels are flammable.

During spray painting operations, volatile organic compounds (VOCs) and hazardous air pollutants (HAP) are released into the environment. These pollutants are regulated under the Clean Air Act. To learn more about these requirements, refer to

Section I, under the Air Regulations.

POLLUTION PREVENTION TIPS

Here are some tips on ways to minimize your waste from spray painting operations:

- Train employees on paint application techniques. Proper training in the correct use of applying paint can reduce your waste and VOC emissions.
- Make sure your shop uses high-volume/low-pressure (HVLP) spray guns. These spray guns have transfer efficiencies of about 60 to 80 percent.
- Train employees on the proper cleaning and maintenance of equipment. This is essential in achieving a high quality finish, especially in the new spray guns.
- Do all spray painting in an enclosed spray booth equipped with filters.
- When cleaning spray guns with solvents, use smaller diameter tubing so that you will use less solvent.
- The solvent that is used to clean spray guns can be reused to thin paint of the same color.
- If possible, switch to water-based paints and primers.
- Switch from lacquer to enamel-based paints. Lacquer paints may contain 70 to 90 percent solvent by volume, while enamels contain 55 to 75 percent solvent by volume.
- Use solvents with low or no VOC content.
- Give leftover paints that won't be used to customers for touch up.
- Purchase a small solvent distillation unit in order to recycle your paint thinners and solvents.

Parts Cleaning and Degreasing

REGULATORY REQUIREMENTS

Spent solvents are the largest hazardous waste stream created by the automotive industry. Spent solvents are dangerous to workers because they are toxic and they emit harmful vapors. If your shop still uses a parts washing system that contains a hazardous solvent, you may be generating listed hazardous wastes which will have EPA Hazardous Waste Codes of F001-F005. In addition, many solvents may be hazardous because of ignitability which will have an EPA Hazardous Waste Code of D001.

When using hazardous solvents in your parts washing system, you are required to keep track of the amount of spent solvent generated each month and dispose of them as hazardous waste. The following are some of the common spent halogenated and non-halogenated solvents used in degreasing operations that are considered hazardous:

Tetrachloroethylene (Perchloroethylene)
Methyl isobutyl ketone (MIBK)
Chlorinated fluorocarbons
Trichlorofluoromethane
Carbon tetrachloride
Ortho-dichlorobenzene
Methylene chloride
1,1,1-trichloroethane
Methyl ethyl ketone (MEK)
Methanol
Isobutanol
Toluene
Acetone
Xylene
Benzene

If your shop uses any of the above parts washing solvents or degreasers, or any other hazardous solvent not listed above, you should make every effort to replace your parts washer or degreaser with nonhazardous substitutes as soon as possible.

TYPES OF PARTS WASHERS

There are many opportunities available to minimize or eliminate your generation of hazardous solvents. One of your first choices should be to use a nonhazardous or less hazardous parts cleaning system. Here are some tips you should follow before purchasing or leasing your parts washer:

- Buy a parts washer with a lid rather than an open bucket or pan. This will reduce evaporation or spillage of the solvent.
- Instead of leasing, purchase your own parts washer. Service agreements tend to change your solvents more often, which generates more waste. Also, if you are a conditionally exempt small quantity generator, you can transport your spent solvent and sludge to an approved facility. See Section II for more details.
- Talk to other shops to find out which system works best. This will save you time and money trying to decide which system is best for your shop.
- When a supplier or vendor lets you demo a parts washer, make sure you specify that he takes away the whole unit, including the spent solvent and any still-usable solvent if you decide not to buy the unit.
- Buy a parts washer with a drain shelf that fits inside the basin. This allows solvent to drain from parts prior to removing them from the washer.
- Buy a parts washer with a filtering unit that will extend the life of the solvent by filtering out contaminants. Remember, when discarding the filters,

a hazardous waste determination must be made prior to disposal.

- Parts washers that are heated seem to work better than unheated units.

The following are some types of parts washers available:

Aqueous Cleaners

Aqueous cleaning refers to the use of water, detergents, acids, and alkaline compounds rather than organic solvents. Aqueous cleaners are one of the most popular choices for degreasing parts at automotive shops and are a good alternative to the petroleum-based and halogenated solvents. Some of the benefits include:

- Less risk of hazardous exposure and more environmentally friendly.
- Not flammable or explosive.
- Oils and greases can be removed more effectively.
- Potential savings in disposal costs, since used aqueous parts cleaning water may be eligible for discharge into a public sewer system. Prior approval is needed. Check with your publicly owned treatment works (POTW) for requirements.

Hot Soap Washers

Hot soap or jet spray washers are like dishwashers that clean parts. They use detergent and hot water to remove oil, grease, and dirt. Employees like hot soap washers because they can clean parts automatically while they perform other duties in the shop. Other benefits of hot soap washers include:

- Eliminates employee exposure to hazardous solvents.
- Less employee time spent on parts washing.
- Not flammable or explosive.
- Little or no hazardous waste generated.
- Potential savings in disposal costs,

since used aqueous parts cleaning water may be eligible for discharge into public sewer system. Prior approval is needed. Check with your publicly owned treatment works (POTW) for requirements.

The sludge from oil, grease, dirt and other contaminants should be cleaned out frequently. Prior to disposal, you must make a hazardous waste determination on the sludge. Nonhazardous sludge can be hauled by a septic tank company, or if dry, taken to a landfill. If you are a conditionally exempt small quantity generator (CESQG), dried sludge that is considered hazardous can be taken to a landfill as long as you get prior approval from the landfill operator. Check with your local landfill for requirements.

Semi-Aqueous Cleaners

These cleaners are also called: less toxic solvents, less hazardous solvents, non-halogenated solvents, petroleum-based solvents or terpene solvents.

Semi-aqueous cleaners are products that can be dissolved in water or applied in a concentrated form. They are called semi-aqueous because they can be applied either way. Terpenes are hydrocarbons derived from wood or citrus fruits, usually orange or lemon peel oils. Even though most of the semi-aqueous cleaners are not ozone depleters, they are highly toxic to aquatic life, some have a high cost and they may still be hazardous wastes when spent. A hazardous waste determination should be made prior to disposal.

Solvent Distillation

If hazardous solvents must be used at your shop, then you may want to consider purchasing a solvent distillation unit to recycle your solvents. For example, if your shop generates five gallons of paint and solvent waste, you may be able to reclaim

four and a half gallons of solvent. This would leave you with only one half gallon of sludge that must be disposed of as hazardous waste. This sludge that is generated is called “still bottoms.” Solvent is reclaimed by heating spent solvent to its boiling point in a “still” and then cooled, which produces nearly pure liquid solvent that can be reused. Spent solvent need only be counted the first time that it is generated in a calendar month if it is reclaimed and reused on site. If spent solvents are counted, then still bottoms don’t need to be counted for the purpose of determining generator category, but do need to be managed as a hazardous waste.

POLLUTION PREVENTION TIPS

Here are some pollution prevention tips on managing your degreasing operations:

- Wipe off parts with a rag or wire brush before soaking in parts washer.
- Do not clean parts unnecessarily.
- If possible, try to maintain two parts washers so that you can use one for pre-rinsing.
- If your parts washer doesn’t have a drip shelf inside the tub, use a drip tray to drain cleaned parts.
- Turn off solvent stream and cover the unit when not in use. Also, if your unit is equipped with a heating element, turn it off at the end of the day.

Refrigerants

REGULATORY REQUIREMENTS

By the end of 1995 all manufacturers should have stopped production of the refrigerant R-12. Federal regulations state that it is illegal to vent refrigerants to the atmosphere and require that refrigerant recycling equipment must be used when

servicing vehicle air conditioners. When spent refrigerant is recovered, it must be properly labeled.

Do no vent refrigerants to the atmosphere.

CERTIFICATION

Anyone in New York State who works on vehicle air conditioning systems must be certified. You can obtain a list of EPA approved Section 609 certifying organizations by calling (800) 296-1996, or by e-mailing:

<http://www.epa.gov/ozone/title6/609>. Also, the New York State Department of Motor Vehicles, Division of Vehicle Safety, Technical Training Unit offers a course called, Systems Training and Air Conditioning (STAC). That course goes beyond the certification requirements for servicing, handling, recycling, and retrofitting procedures for motor vehicle air conditioning. STAC provides training in diagnosing and repairing vehicle air conditioning, mechanical, electrical and electronic systems. For more information on this and other courses, call the NYS

Department of Motor Vehicles at (518) 474-4279 or fax (518) 473-9903.

POLLUTION PREVENTION TIPS

Here are some tips to help you better manage refrigerants:

- Use only approved reclaiming and recycling units when recharging or removing refrigerants.
- Remove and recover refrigerants from system before servicing vehicle.
- Avoid mixing R-12 and 134a since contaminated refrigerant can’t be put back into the vehicle and must be sent to a refrigerant recycling facility.

- Do not use alternative refrigerants containing liquified petroleum (LP). These refrigerants not only cause contamination, but pose a significant health risk due to explosions.
- Be sure to use the proper O-rings, lubricants, etc. when retrofitting automobile air conditioning systems.
- Don't allow freon to mix with oil prior to reclamation or recycling.
- Keep technician certification and shipment manifests on-site for at least three years.
- When retrofitting, relabel and install the proper fittings to prevent accidental contamination of the system with other refrigerants. The label should be located under the hood. That identifies the type of refrigerant used. Otherwise, a device is available that will identify the type of refrigerants in a system.
- If you have a crushing operation, refrigerants should be removed prior to crushing or shredding.

Shop Towels

REGULATORY REQUIREMENTS

Industrial rags (also known as shop towels) or soiled clothing, which are contaminated with listed or characteristic hazardous wastes, do not have to be managed as hazardous wastes when sent to a commercial, non-commercial laundry, or dry cleaner to be cleaned and then returned to the owner. The following conditions must be met:

- There is no exemption for rags or soiled clothing contaminated beyond saturation (containing free liquids). Any rags or soiled clothing containing free liquids will be subject to full regulation.
- Rags and soiled clothing must be

managed in accordance with 6 NYCRR Part 372 and Subpart 373-1 until the materials are sent for laundering and counted as wastes generated and accumulated for the purpose of determining generator category. If you are required to submit an annual hazardous waste report to DEC, you must report all hazardous waste rags on this report.

All rags and soiled clothing that contain flammable materials must be stored and transported in fire proof containers.

POLLUTION PREVENTION TIPS

Here are some tips on managing your shop towels:

- Send your shop towels to a laundry or dry cleaning service. You only have to manage your shop towels in accordance with the hazardous waste regulations until they leave your shop.
- If your shop is large enough, you may consider purchasing a centrifuge to collect and recycle excess solvent from your shop towels. Most laundries will not accept saturated shop towels. *Centrifuges may be costly, which would not make this a cost-effective purchase for small maintenance shops.*
- Store your shop towels in metal safety cans to reduce the risk of fires. If your shop towels contain solvents, they should be stored in a double-bottom drum to allow the solvent to drip where it can be collected.

Used Electronics

REGULATORY REQUIREMENTS

Due to technology's rapid development, electronic equipment quickly becomes out of date. Owners of computers and electronic

equipment have three disposal options:

- Resale, donation or repair of units.
- Dismantling and recycling of units.
- Disposal of units.

Some items (e.g., computer monitors) typically qualify as hazardous waste under DEC's hazardous waste requirements. However, such hazardous waste may be exempt from regulation under the scrap metal exemption, provided that they are managed in the specified way.

Scrap Metal Exemption

Most discarded electronics which would qualify as hazardous waste (e.g., 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 as hazardous waste if the following conditions are 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 notify DEC, giving 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 broken cathode ray tube (CRT) glass. Note that an item which qualifies as hazardous scrap metal is still a hazardous waste, but exempted from regulation if it will be recycled.

Resale and Repair of Units

Electronic products that are directly resold or even donated for continued use are not considered to be discarded, and, thus, cannot be subject to the solid or hazardous waste regulations (i.e., they are still "products").

Non-working electronic products that are serviced by repair shops repaired and then returned to the user are not considered to be wastes.

If non-working electronic products are dismantled and some individual parts (e.g., disk drives) are found to be operative, reused or marketed for reuse, such parts are considered to be products reclaimed from waste. Therefore, they are no longer considered to be solid or hazardous waste. Any unusable components removed from the products as part of a repair process must be managed by the repair shop as "ordinary" solid or hazardous waste, unless the part qualify for the scrap metal exemption.

More information on handling of used electronics can be found on the DEC web site:

www.dec.state.ny.us/website/dshh/hzwstman/electron.htm

Used Fuel Filters

REGULATORY REQUIREMENTS

Metal fuel filters that are drained of all free liquids and taken to scrap metal yards for recycling are exempt from the hazardous waste regulations. Fuel filters cannot be discarded in dumpsters or in the trash, even when properly drained since they may be considered hazardous due to benzene or lead.

Used Oil

REGULATORY REQUIREMENTS

Used oil is not regulated as a hazardous waste if it is recycled or burned for energy recovery. This means that your used oil, if not mixed or contaminated with hazardous waste, can be managed under the used oil regulations, 6 NYCRR Subparts 360-14 and 374-2. Used oil includes used crankcase oil, metal working oils, gear oil, transmission fluid, brake fluid, hydraulic fluid, dielectric fluid (excluding PCBs), and tank bottoms from used oil tanks only.

If you are disposing of any used oil rather than recycling or burning for energy recovery (i.e., spills, soil contamination, cleanup), or your used oil is mixed with other wastes, then you must make a hazardous waste determination and comply with any applicable hazardous waste regulations.

Remember
All retention tanks for used oil storage must be registered with DEC.

Used Oil Storage

Used oil must be stored in a sturdy, leakproof drums or tanks in compliance with State or local building and fire codes, and they must be clearly labeled "USED OIL." In addition, the label for the tanks must include the capacity of the tank. Underground tanks must be labeled at the fill port. All used oil tanks, regardless of size, are subject to Petroleum Bulk Storage (Parts 612 - 614) requirements, including registration with the DEC. However, registration fees are required only if the storage capacity of the used oil tank is greater than 1,100 gallons, and the used oil is burned on site for heating. See section in this manual on "Petroleum and Chemical Bulk Storage Regulations" for further information.

Did You Know?

- It takes 42 gallons of crude oil to yield 2.5 quarts of lubricating oil.
- When used oil is recycled, it takes about one gallon to yield 2.5 quarts of lubricating oil.
- Used oil from a single oil change can contaminate a million gallon water supply for 10,000 people.
- Used oil is the largest single source of pollution in our nation's waterways.
- Used oil can contain toxic substances such as arsenic, benzene, cadmium, lead, and zinc.
- There are 1.2 billion gallons of waste oil generated annually in the United States.

Transporting Used Oil

Your shop must contract with a Part 364 Permitted waste hauler to pick up your used oil for recycling or disposal. However, your shop can transport up to 500 pounds (roughly 55 gallons) of used oil, without a Part 364 permit but only to:

- A facility that is also owned by your company, or;
- A facility permitted by DEC to accept used oil directly from the generators of that oil.

Accepting Used Oil

New York State mandates that service and retail establishments accept up to 5 gallons per person per day of used oil at no charge from “do-it-yourselfer (DIY).” A do-it-yourselfer is an individual who changes the oil in his or her own personal vehicles. You cannot take used oil from other businesses. A service establishment is a business that sells at least 500 gallons per year of new oil and performs servicing on vehicles. A retail establishment is a business that sells at least 1000 gallons of new oil per year, but doesn’t perform any servicing of vehicles. Every service establishment and retail establishment must post a sign that is open to public view, stating: “WE ACCEPT USED OIL FOR RECYCLING AT NO CHARGE.” The sign may also say that used oil is only accepted during normal business hours. Service establishments cannot charge either do-it-yourself oil changers, or customers that have their oil changed, for the used oil. Service and retail establishments may require that the used oil be brought in rigid, screw top containers; and may refuse to accept used oil from DIYs if the used oil is contaminated through other than normal and ordinary use.

Used Oil-Fired Space Heaters

Shops can burn their own used oil and used oil from do-it-yourselfers in specially designed used oil-fired space heaters as long as the following requirements are met:

- The used oil originates from vehicles serviced at your facility or by DIY’s.
- The space heater is rated at less than 0.5 Million British Thermal Units (BTUs) per hour.
- The space heater is vented to the outside.
- The used oil has not been mixed with any hazardous waste.
- Comply with the provisions of 6 NYCRR Part 225-2.

Many vehicle maintenance shops purchase used oil-fired space heaters and then find out that they don’t generate enough used oil to keep the space heater operating throughout the winter. Although it may seem desirable to receive use oil from other vehicle maintenance shops, both the used oil and air regulations impose significant restrictions, such as record keeping and analytical testing, on this practice. If you wish to explore the possibility of burning used oil from other than your own or do-it yourself oil changers, please contact the Bureau of Hazardous Waste Reduction at (518) 402-8633, or call the Regional DEC office listed in Section IV.

Used Oil Filters

Terne plated oil filters are no longer manufactured in the U.S. for use in private vehicles. Terne plated oil filters, which consists of an alloy of lead and tin, are considered a hazardous waste when disposed. Typically non-terne plated used oil filters are not considered a hazardous waste and can be disposed of as a solid waste if used oil is removed from the filter by one of the following methods:

- Puncturing the filter and hot draining for at least 12 hours at or near engine operating temperature.
- Hot draining for at least 12 hours at or near engine operating temperature and then crushing the filter.
- Hot draining at or near engine operating temperature and dismantling filter.
- Any other equivalent method that will remove used oil.

If one of the above methods has been performed, these used oil filters can be disposed of as a normal solid waste, subject to town and county requirements. However, the most environmentally preferred method of disposal is to recycle these filters. Check with the local scrap metal yard for more recycling information.

Brake Fluids

Brake fluids are considered used oil and can be combined with your used oil as long as they don't contain any solvents, brake cleaners or carburetor cleaners. Remember, brake fluid contaminated with any of these materials could cause your used oil to become hazardous. If the shop still uses brake cleaners in an aerosol can, chances are they may contain chlorinated solvents which are a hazardous waste. Therefore, the shop should consider investing in an aqueous brake cleaning system which will not only be safer for employees, but could save the shop money.

POLLUTION PREVENTION TIPS

Here are some tips on managing your used oil:

- Store used oil in tanks or closed containers labeled "USED OIL." This is also a requirement under the used oil regulations.
- Do not mix hazardous waste with used oil. This may contaminate your used oil with hazardous waste, and therefore, prohibit you from managing it as used oil.
- Make sure your used oil storage tanks or drums have proper containment in case there is a leak or spill.
- Inspect your used oil storage tanks or drums on a regular basis for leaks or spills. This is also a regulatory requirement.
- Use large drum funnels or fill tubes when filling used oil drums.

- Place drip pans underneath leaking vehicles to collect dripping oil. Don't forget to pour oil from drip pan into the used oil drum.
- Try to prevent spills when servicing vehicles. If spills do occur, clean up oil spills with rags. After wringing out the saturated rag into the used oil drum, you can have the rags laundered. See section on Shop Towels for requirements.
- Send used oil for recycling. Although EPA and DEC allow burning in used oil-fired space heaters as a matter of economics for small (especially rural) businesses, EPA recognizes in promulgating this allowance that space heaters do pollute.
- Recycle your oil filters through a scrap metal yard or a used oil filter recycler. The service provided by oil filter recyclers costs approximately \$75.00 per drum of uncrushed filters.
- Inspect used oil from do-it-yourselfers. Make sure there are no other wastes mixed in with their used oil. This can be done based on color and consistency. If you do decide to refuse the used oil, as a public service you should provide the DIY with the phone number of the town or county recycling coordinator so that the DIY can contact that office for alternative disposal options; or you can have them call (800) 462-6553.

Waste Tires

REGULATORY REQUIREMENTS

It is a violation to store more than 1000 tires on your premises at any one time without obtaining a DEC permit. For counting purposes, tires still mounted on a vehicle are not considered waste tires until

removed from the vehicle, at which point they become part of the tire count. Please note that you must include in your total count used tires that are being sold whether stored inside or outside your shop.

New York State passed tire legislation that becomes effective September 12, 2003, which requires any person or business in New York State who sells or installs new tires for use on any vehicle and any person or business who sells new motor vehicles to charge a \$2.50 fee for each tire sold. The tire dealer will be allowed to retain an allowance of twenty-five cents per tire. The fee must be remitted with a quarterly report to the NYS Department of Taxation and Finance (DTF).

Waste tires must be removed from your facility for disposal by 1) a permitted Part 364 Waste Transporter, or 2) you can transport up to 500 pounds (about 25 tires) of used tires to an approved DEC facility without obtaining a permit.

Whole waste tires are prohibited from being landfilled in New York State.

Go to: www.dec.state.ny.us/website/dshw/redrecy/tirereg.htm for a list of permitted waste tire storage facilities in New York State.

POLLUTION PREVENTION TIPS

Maintaining tires properly can help tire last longer. This can save money on replacement costs and reduces the number of tires requiring disposal. Some tips to make tires last longer:

- Use recommended size tire for the vehicle.
- Inflate tires to the recommended pressure in the owner's manual.
- Keep tires balanced and rotate every 6,000 - 8,000 miles or as recommended by the manufacture.
- Start and stop the vehicle slowly and decelerate before corners.
- Drive the speed limit.

When improperly managed, waste tire piles pose a threat to public health and the environment. In addition to providing a breeding ground for mosquitos, which may carry disease, they are also a serious fire hazard.

Here are some tips to help you manage waste tires:

- Store as few tires as possible at your facility. Make sure your tires are hauled away on a regular basis.
- Keep tires stored indoors, or keep tire piles covered in order to prevent entrapment of water.
- Make sure your hauler is authorized by DEC to transport waste tires. Ask to see his license and find out where the tires are being taken.

Commonly Asked Questions

Q I just cleaned up an oil spill with speedi dry, can I throw this waste in the dumpster?

A Not without a hazardous waste determination. Used oil that is not destined for recycling or burning for energy recovery must have a hazardous waste determination done before disposing of the waste. Generally speaking, if absorbents or speedy dry have any free liquids they should not go in the dumpster, even if they are not a hazardous waste. Most oil spills can be avoided. Have your employees use care when handling containers that have the potential to spill. Other spilled chemicals may be a hazardous waste as well. If you are in doubt, check with your DEC office.

Q I have a waste oil burner that is less than a half a million BTUs per hour at my shop. I burn my used oil and that

which is given to me by do-it-yourself oil changers. My problem is that I do not have enough used oil to burn throughout the winter months so I have a couple of small shops bring me their used oil. Is this legal?

A No. Burning used oil other than your own or from do-it-yourself oil changers that bring it to your station is illegal unless you obtain the proper permits.

Q A hauler picks up my antifreeze and he tells me that he takes it to a recycling facility. Since my antifreeze is being recycled, do I need to make a hazardous waste determination on this waste?

A Yes. Unless your antifreeze is recycled on site by a totally enclosed system that hooks up to the vehicle's coolant system, and in which no used antifreeze exits the system, you must make a hazardous waste determination on your waste antifreeze. Used antifreeze that has been drained from automobiles that is still useable, as in the case of automobile recyclers, can be resold or given away as a useable product and does not have to be counted as waste.

Q I just purchased a service station in an area where there are no public sewers. There is a floor drain in the middle of my shop but I am not sure where it empties. The only water that empties into this drain is from the few cars that are washed, or water from the dripping snow in the wintertime. Are there any special regulations that I have to comply with?

A If your discharge from this floor drain does not end up in a public sewer or some type of holding tank, then there is a good chance you are in violation of the Environmental Conservation Law (ECL) for an illegal discharge to

surface or groundwaters. You should determine where the floor drains discharge by using some environmentally safe dye or food coloring.

Q I have a 500 gallon underground tank that I use for storage of my used oil. Do I need to comply with the new EPA requirements to upgrade this tank by December 22, 1998 even if I burn my used oil to heat my station?

A Yes. Used oil tanks are not exempt.

Q I store my used oil in a 275 gallon tank but heard from many people that I don't have to register these tanks because it is under 1,100 gallons. Does this tank require registration by DEC?

A Yes. All used oil retention tanks, no matter what size must be registered with DEC. Drums and containers, however, do not have to be registered. All drums, containers, and tanks must be labeled with the words "USED OIL", and tanks must also be labeled with their capacity.

Q I just purchased a degreasing unit that has a built in distillation unit that recycles the mineral spirits so that they can be reused over and over. The only waste that is generated from this unit are still bottoms that I drain off periodically. Can I discard these still bottoms with my used oil?

A Yes, provided that:

1. The still bottoms display no hazardous characteristic other than ignitability.

2. If the distillation bottom does exhibit ignitability characteristic, the used oil, after being mixed with the distillation bottoms, does not exhibit the

characteristic of ignitability.

3. The distillation bottoms are a used oil/mineral spirit mixture. If the mixture does not exhibit the ignitability characteristic, it is regulated as a used oil, and does not require a toxicity characteristic leaching procedure (TCLP) test prior to being mixed with the shop's used oil.

4. If the still bottoms are an ignitable hazardous waste, they are regulated as hazardous waste until they are mixed with the used oil. If the vehicle maintenance shop is not a Conditionally Exempt Small Quantity Generator, then the generator would need to place a one-time LDR notification in the generator's files, per 6 NYCRR 376.1(g)(1)(vii).

5. Still bottoms that are ignitable hazardous waste are regulated as hazardous waste prior to mixing. In order to be exempt from hazardous waste facility permitting (a long and expensive process), non-CESQGs would need to meet the treatment-in-containers exemption of 6 NYCRR 373-1.1(d)(1)(ix). This would require that (a) the oil be added to the hazardous waste container, and (b) the hazardous waste container would have to be in compliance with the applicable hazardous waste storage requirements.

6. The used oil/still bottoms mixture must still be recycled as a used oil. The additions of the still bottoms cannot cause the oil to be unacceptable to the recycler.

Section III - ENVIRONMENTAL SELF-ASSESSMENT

(A quick and easy checklist of pollution prevention measures)

This self-assessment is designed to test a facility's performance in pollution prevention, waste reduction and recycling. The following checklist is a guide designed to be used by anyone involved in the day-to-day operations of a vehicle maintenance shop. This includes facilities such as new/used car dealerships, service stations, auto body shops, trucking companies, municipal garages, or any organization that operates fleets of motor vehicles. Facilities are advised to conduct routine self-assessments to identify opportunities to incorporate pollution prevention measures into their operations.

You should review each section of the self-assessment with the mechanic or manager who is most familiar with that particular part of the operation. Responses to the questions should show whether potential hazards or polluting activities are occurring that may be addressed by an operational change, product substitution or better housekeeping.

This self-assessment is only one in a series of steps that your business should take to determine its regulatory compliance and to identify suitable methods of waste reduction. The checklist would be most effective when used with related tools, such as workshops and publications. For many small facilities, the self-assessment will likely be as useful as a thermometer would be for a person with a fever: the symptoms may be measured, but an expert opinion may be needed to diagnose the problem and develop corrective measures.

Progressive facilities will use the environmental self-assessment to achieve two goals: to evaluate current business practices and to develop an ongoing program in pollution prevention.

Don't be discouraged by the sometimes difficult process of identifying and addressing environmental problems. Over the long haul, the measurable benefits of conducting and responding to regular environmental self-assessments may include reductions in: environmental hazards, exposure to enforcement, fines, insurance rates, waste handling costs and accidents. Benefits may also include an improved compliance record, improved worker health and a better work environment. Intangible benefits may include better relations with regulatory agencies, improved employee morale, favorable publicity and a stronger community reputation for integrity.

This environmental self-assessment should provide extremely useful information, but there is no guarantee, expressed or implied, that the information will identify all possible conditions and opportunities for pollution prevention. An environmental self-assessment can prove worthwhile as a preventive strategy in much the same way that an internal financial audit helps your business avoid violations of local, state and federal tax laws. It can identify process changes and housekeeping measures that will prevent damage to the environment and help your business comply with environmental requirements.

Review each question carefully and check the appropriate box. A *yes* answer indicates that your shop has incorporated waste reduction and recycling measures into its day-to-day activities. A *no* or *can't determine* answer indicates that an opportunity to prevent or reduce pollution may exist. Take notes on the questions that received a *no* or *can't determine* response.

SELF-ASSESSMENT CHECKLISTS

MATERIALS HANDLING, STORAGE & SPILL PREVENTION

	Yes	No	Not Applicable	Can't Determine
Have the employees responsible for purchasing supplies been trained to manage inventory and identify alternative, less toxic products to reduce the amount of hazardous chemicals used in your shop?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you date all materials and use the first-in, first-out method of inventory control?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you inspect all shipments of materials at time of delivery and return unacceptable and damaged materials to the supplier?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have your employees been trained to safely handle the types of drums and packages received?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you purchase bulk liquid products such as: oil, antifreeze, glass cleaner, windshield fluid to reduce container waste and eliminate the use of aerosol containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop purchase smaller containers of infrequently used materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have your employees been trained on the proper transfer of materials including: pumping, pouring, grounding and bonding?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you require that employees use funnels to transfer virgin materials and wastes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you require employees to return empty containers before being issued new supplies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a designated hazardous waste storage area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have your employees been trained in the hazardous waste regulations (e.g., labeling, storage and manifesting requirements) related to the job they are doing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| Does your shop maintain and make readily available to employees Material Safety Data Sheets (MSDS) for all materials used in vehicle repair and shop cleanup? (<i>This is an OSHA requirement.</i>) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If not stored within the building, does your shop store all materials and wastes in a covered storage facility? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Does your shop store all solvents and automotive fluids consistent with the manufacturer's recommendations for storage? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do you return obsolete or out-dated supplies to the vendor? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Does your shop store municipal wastes (e.g., office and food wastes) separate from industrial wastes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Does your shop store all hazardous materials and empty containers separate from nonhazardous materials and containers? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Does your shop store each of its waste materials (i.e., oil, antifreeze, cleaning solvents, and carburetor cleaner) in separate containers? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Do the virgin/waste materials storage areas have a berm and sump drain to contain spills and leaks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If your storage area does not have a berm, do you use a self-contained spills management method such as pallets that have built-in spill containment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have you sealed all floor drains in areas that are used for the storage of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have your employees been trained to safely handle spills? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Have your employees been trained in spill reporting requirements? (See *Spill Response: Basic Procedures and Requirements for Responsible Parties in New York State, January 1991* for information regarding the steps to take in the event of a spill of petroleum or hazardous substances.)



PARTS CLEANING & DEGREASING

	Yes	No	Not Applicable	Can't Determine
Have you explored the use of citrus-based, detergent-based or a hot soap parts cleaning system to replace a solvent or caustic-based system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your shop established guidelines as to when parts should be cleaned using solvents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are your employees encouraged/required to brush dirty parts to remove caked-on solids and to improve cleaning efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the solvents you use for cleaning have a flash point of more than 140 degrees F?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you use a self-contained, recirculating solvent sink for parts cleaning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you installed drip trays or racks on your parts washers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you require solvent cleaning tanks to be covered when not in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use parts washers that have a solvent filtering feature to extend solvent life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If your shop has two (or more) parts washers, do you alternate servicing schedules and use the washer(s) with contaminated solvent for dirty parts only and use the washer with clean solvent for final cleaning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop collect and recycle waste cleaning solvents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If your shop uses halogenated solvents, have you considered the purchase of an on-site solvent distillation system as a way to recycle the waste solvent?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Not Applicable	Can't Determine
Does your shop use a zero-discharge parts washers which incorporates a built-in distillation unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you explored the possibility of using one multi-purpose solvent rather than several different solvents to increase the potential for reuse and recycling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you use nonhazardous parts washers have you taken steps to prevent contamination and have you tested the liquid, sludge and filter for hazardous characteristics?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

P2 Pays

The U. S. Postal Service operates seven vehicle maintenance facilities in upstate New York that maintain a fleet of 4,210 vehicles. Through a pollution prevention program that has included:

- the replacement of solvent based parts cleaners with non-hazardous aqueous parts washing systems;
- switching from using chlorinated solvents and other hazardous chemicals to aqueous cleaners for cleaning brakes; and
- installing on-site closed loop antifreeze recycling units

the Postal Service has reduced its generation of hazardous waste by 90 percent and decreased its total waste management cost per vehicle serviced from \$7.39 to \$4.52. This has resulted in an **annual savings of \$21,364.00.**

MAINTENANCE AND REPAIR ACTIVITIES

	Yes	No	Not Applicable	Can't Determine
Oil				
Do you require employees to use drip trays to prevent fluids from automobiles, parts and funnels from leaking onto the shop floor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you require that employees place dirty parts in drip trays instead of directly on the shop floor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you require oil filters to hot drain for a minimum of 12 hours to collect all residual oil prior to disposal or recycling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are your oil filters crushed and sent for recycling as scrap metal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use large drum funnels when transferring collected oil to waste oil storage containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop store used oil in closed containers that are clearly marked "Used Oil"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop contract with a permitted waste transporter for off site recycling of used oil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you conduct a regular inspection of waste oil tanks for leaks and spills?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop dispose of transmission fluid, non-PCB dielectric fluid, gear oil, hydraulic fluid and cutting oil with its waste oil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Not Applicable	Can't Determine
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Antifreeze

Does your shop drain and save for reuse in the vehicle that is being repaired, good antifreeze that has been removed to service parts such as the radiator, thermostat or water pump?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does your shop recycle spent antifreeze on site?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does your shop contract with a permitted waste transporter for off-site recycling of spent antifreeze?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Batteries

Do you store waste lead acid batteries on pallets in a well ventilated area that has an impermeable floor and a berm to allow for spill collection and containment or if the area does not have a berm, are the batteries stored on pallets that have built-in spill containment or in closed containers? *(If wooden pallets are used they can easily become contaminated with sulfuric acid and become a hazardous waste.)*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does your shop recycle its lead acid batteries?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Does your shop maintain a one for one battery exchange program with your supplier?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Do you keep a neutralizing agent near the battery storage area in case of leaks or spills?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Refrigerants

Does your shop use CFC refrigerant recycling or recovery equipment operated by certified technicians when servicing automobile air conditioning systems?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	Yes	No	Not Applicable	Can't Determine
Does your shop evacuate/recover refrigerant before servicing any system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all of your employees aware that it is illegal to vent R-12, R-134a or any other refrigerant to the atmosphere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop have a policy of encouraging customers to locate and repair leaks rather than just "topping off" a system that is not cooling adequately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop maintain appropriate records on the purchase/use of refrigerants and notify EPA of equipment and technician certification?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Radiators

Has your shop eliminated the use of aromatic and chlorinated hydrocarbon solvents in the repair of radiators?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the boil tank placed in a secure area with secondary containment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you collect the drainage from the boil tank in holding tanks/drums and dispose of it as a hazardous waste if testing shows that it is a hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your shop eliminated the use of lead solder or use solder with the lowest lead content in the repair of radiators?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Miscellaneous

Do you drain fuel filters of all free liquids and send them for recycling as scrap metal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use an aqueous brake wash as an alternative to a solvent wash and aerosol solvents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Not Applicable	Can't Determine
Does your shop require that employees keep containers of solvents, paint thinners and other volatile liquids closed when not in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you require that all containers be clearly labeled with their contents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BODY REPAIR AND PAINTING

	Yes	No	Not Applicable	Can't Determine
Do you require that employees estimate surface area to be repaired before mixing body filler and paint?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is all painting done in an enclosed spray booth?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use reusable metal or Styrofoam paint filters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you require that the spray guns be calibrated on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your shop investigated the use of paints with lower volatility, lower metal concentrations and a higher solids content?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use more efficient paint transfer equipment such as high-volume/low-pressure or low-volume/low-pressure spray guns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your shop reduced the size of the paint cups on the spray guns to reduce the potential for waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use more efficient painting processes such as electrostatic painting or powder coating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are your employees required to scrape out excess paint before rinsing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop have fully enclosed stations for cleaning spray guns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you use small diameter hoses when dispensing solvents for cleaning spray guns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your shop calculated its VOC emissions from solvents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Not Applicable	Can't Determine
Does your shop have a policy of using waste paint as a rough coat for other applications such as undercoating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop have a policy of making leftover paint (enamel or lacquer only) available to the customer for touch-up use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop segregate waste paint and paint sludge from waste thinner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop have a policy of reusing clean-up solvent in the next compatible batch of paint?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop have a solvent distillation system to recycle its waste solvent?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

P2 Pays

The City of White Plains operates a 400-vehicle fleet comprising fire apparatus, police cars, motorcycles, bulldozers, dump trucks and street sweepers. The city decided that by increasing the overall fuel efficiency of the general fleet it could dramatically reduce the generation of air pollutants. White Plains accomplished this through a program that employs the use of lightweight, yet durable truck body materials (aluminum, fiberglass or graphite fiber), special order engines and low friction axles.

Replacing steel truck cabs, dump and utility bodies, suspensions, wheels and air/fuel tanks with aluminum and or fiberglass has reduced vehicle weights, increased legal payload capacity and significantly increased fuel economy. Significant savings have also been realized from decreased maintenance costs because tire and brake lining life were increased and because aluminum and fiberglass parts require less frequent maintenance and have a longer life span than comparable steel parts.

SHOP CLEANUP

	Yes	No	Not Applicable	Can't Determine
Is all vehicle maintenance performed in areas with no floor drains or where the floor drains have been sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If your shop has floor drains are they connected to an oil/water separator that discharges to a municipal sewer system or a holding tank? <i>(Discharge directly to groundwater, surface water or land is illegal.)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are discharges into the sanitary sewers within limits established by the sewage treatment plant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the concrete floors of the service bays sealed with an impervious material to facilitate cleanup without using solvents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop have an award program for workers who keep their work bays clean?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use brooms or other dry methods as the primary means of cleaning the shop floors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you clean the shop floors using water, do you use a biodegradable detergent?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are your employees required to wipe up small spills as soon as they occur?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use dry methods for clean-up of small spills?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are your employees required to pick up absorbent material as soon as possible after the leak or spill has occurred?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Yes	No	Not Applicable	Can't Determine
Do you store your shop towels in a closed, metal safety container?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop send its dirty shop towels to a commercial laundry service for cleaning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop periodically clean its floor drains and test the sludge to determine if it is a hazardous waste prior to disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your shop use a commercial car wash for vehicle washing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are washwaters from vehicle washing discharged to a dedicated grit separator and discharged to the municipal sanitary sewer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If your vehicle storage area is uncovered does it have a separate storm water collection system with a grit separator that discharges to the municipal sanitary sewer or to a holding tank?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is your shop's oil/water separator serviced on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 Environmental Permits (DEP)

(518) 402-9167

Pollution Prevention Unit (PPU)

(518) 402-9469

This Unit is responsible for the development of outreach and compliance assistance programs and offers workshops/training, and publications.

Division of Solid & Hazardous Materials

Bureau of Hazardous Waste Management

(518) 402-8633

Responsible for making hazardous waste determinations, reviewing hazardous waste reduction plans, hazardous waste permitting, and used oil.

Bureau of Solid Waste Reduction & Recycling

(518) 402-8678

Responsible for the the waste transporter program, the waste tire program, the beneficial use program, composting programs, and other solid waste recycling and waste reduction issues.

Division of Air Resources

Bureau of Stationary Sources

(518) 402-8403

Responsible for source review, permitting, MACT, NESHAP implementation, and air toxics assessments.

Division of Water

Bureau of Water Permits

(518) 402-8111

Responsible for managing the State Pollutant Discharge Elimination System (SPDES) permits, the water resources programs, and the municipal water supply permits.

Division of Environmental Remediation

Petroleum and Chemical Bulk Storage

(518) 402-9549

Responsible for the registration of above/underground tanks, conducting workshops and training, and developing publications for the petroleum and chemical bulk storage program.

Spill Response Hotline

(800) 457-7362

To report releases of petroleum products or hazardous substances to air, land or water. Regulations require reporting within 2 hours if certain conditions are not met. Also, the National Response Center should be notified.

Petroleum Bulk Storage Hotline

(518) 402-9549

Provides technical assistance on chemical and petroleum above/underground storage tanks.

NYSDEC Regional Offices

REGION 1

Nassau & Suffolk Counties
Building 40 SUNY at Stony Brook
Stony Brook, NY 11794
(631) 444-0230

REGION 2

Bronx, Kings, New York, Queens and
Richmond Counties
1 Hunters Point Plaza
Long Island City, NY 11101
(718) 482-4900

REGION 3

Dutchess, Orange, Putnam, Rockland,
Sullivan, Ulster & Westchester Counties
21 South Putt Corners Road
New Paltz, NY 12561-1696
(845) 256-3054

REGION 4

Albany, Columbia, Delaware, Greene,
Montgomery, Otsego, Rensselaer,
Schenectady & Schoharie Counties
1150 North Westcott Road
Schenectady, NY 12306-2014
(518) 357-2234

REGION 5

Clinton, Essex, Franklin, Fulton, Hamilton,
Saratoga, Warren & Washington Counties
Route 86
Ray Brook, NY 12977
(518) 897-1242

REGION 6

Herkimer, Jefferson, Lewis, Oneida & St.
Lawrence Counties
317 Washington Street
Watertown, NY 13601
(315) 785-2513

REGION 7

Broome, Cayuga, Chenango, Cortland,
Madison, Onondaga, Oswego, Tioga &
Tompkins Counties
615 Erie Boulevard West
Syracuse, NY 13204-2400
(315) 426-7400

REGION 8

Chemung, Genesee, Livingston, Monroe,
Ontario, Orleans, Schuyler, Seneca,
Steuben, Wayne & Yates Counties
6274 East Avon-Lima Road
Avon, NY 14414
(585) 226-2466

REGION 9

Allegany, Cattaraugus, Chautauqua, Erie,
Niagara & Wyoming Counties
270 Michigan Avenue
Buffalo, NY 14203-2999
(716) 851-7220

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 Corporation
625 Broadway
Albany, NY 12205
(800) 780-7227
(518) 402-7462

Provides confidential assistance to small businesses in New York State on issues regarding the Clean Air Act.

Clean Air Act Small Business Ombudsman

Empire State Development
Small Business Division
633 3rd Avenue, 32nd Floor
New York, NY 10017
(800) STATENY or (800) 782-8369

Provides confidential assistance to small businesses in New York State on issues regarding the Clean Air Act.

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

401 M Street SW
Washington, DC 20460
Phone: (800) 368-5888
Fax: (703) 305-6462

Helps private citizens, small businesses, and smaller communities with questions on all program aspects with EPA.

RCRA/Superfund/EPCRA Hotline

401 M Street SW
Washington, D.C. 20460
(800) 424-9346
(202) 557-1938

Answer 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)
401 M St., SW
Washington, DC 20460
Phone: (202) 260-1821
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) 366-4488
Fax: 366-3753

Technical assistance on matters related to DOT's hazardous materials transportation regulations.

Pollution Protection Information Clearinghouse (PPIC)

PPIC-EPA
401 Main Street, SW (3403)
Washington, DC 20460
Phone: (202) 260-1023
Fax: (202) 260-0178

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. Some counties are opening their facilities to neighboring counties. If your shop is not located in any of these counties, you may want to call the closest household hazardous waste collection facility for more details.

Municipally-owned facilities

Broome County

P.O. Box 1766, Government Center
Binghamton, NY 13902
Mr. Brian R. Donnelly (607) 778-6432
For Appointment (607) 763-4449
Facility location: Broome Co. Landfill
Maine, NY

Monroe County

City Place
50 West Main Street, Suite 7100
Rochester, NY 14614
Mr. Harry Reiter (716) 760-7610
Facility Location: 444 East Henrietta Road

Oneida-Herkimer SW Authority

1600 Genesee Street
Utica, NY 13502
Mr. William Rabbia (315) 733-1224
Facility Location: 1600 Genesee Street
Utica, NY

Rockland Co. SW Management Authority

99 Torne Valley Road
Hillburn, NY 10931
Mr. Ronald C. Delo (845) 753-2200
Facility Location: Fireman's Memorial Dr.
Pomona, NY

Schenectady County

Planning Department
107 Nott Terrace, Suite 303
Schenectady, NY 12308-3170

Mr. Jeff Edwards (518) 386-2225
For Appointment: 1(800) 494-2273
Facility Location: County Farm, Scotia, NY

Tompkins County

125 East Court Street
Ithaca, NY 14850
Mr. Ken Thompson (607) 273-4496
Facility Location: 122 Commercial Ave
Ithaca, NY

Town of Brookhaven

3233 Route 112
Medford, NY 11763
Mr. Don Nohs (631) 451-6222
Facility Location: Horseblock Road
Yaphank, NY

Town of Huntington

641 New York Ave
Huntington, NY 11743
Mr. Brian Tuohey (631) 427 6377
Facility Location: 641 New York Ave
Huntington, NY

Town of Tonawanda

450 Woodward Ave
Kenmore, NY 14217
Mr. John Hedges (716) 875-8822
Facility Location: Town Highway Garage
Note: Only accepts used oil, antifreeze and latex paint.

Privately-owned facility

Environmental Products & Services, Inc.

532 State Fair Blvd.

Syracuse, NY 13204

Mr. David Ritter (315) 476-4410 ext. 213

Facility Location: State Fair Blvd.

Resources on the Internet

Organization	Internet Address
Car Care Council	http://www.carcarecouncil.org
Coordinating Committee for Automotive Repair- <i>GreenLink</i>	http://www.ccar-greenlink.org
National Pollution Prevention Roundtable	http://es.epa.gov/nppr/
Tellus Institute	http://www.tellus.org
Waste Reduction Resource Center	http://www.owr.ehnr.state.nc.us/wrrc1.html
NEW YORK STATE	
Empire State Development Services to Business	http://www.empire.state.ny.us/service.html
NYS Department of Environmental Conservation	http://www.dec.state.ny.us
NYS Environmental Facilities Corporation	http://www.nysefc.org
U.S. ENVIRONMENTAL PROTECTION AGENCY	
Common Sense Initiative	http://www.epa.gov/commonsense
Design for the Environment	http://earth2.epa.gov/dfore
Enviro\$en\$e	http://epa.gov/envirosense/nppr/index.html
Office of Mobile Sources	http://www.epa.gov/omswww
Office of Underground Storage Tanks	http://www.epa.gov/swerust1/
Small Business Assistance Program	http://www.epa.gov/tnn/sbap
Technology Transfer Network	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	http://bbs.pnl.gov:2080/esp/greenguide/
Pollution Prevention Resource Center	http://pprc.pnl.gov/pprc/

References

Here are some other publications for the automotive industry that you will find useful.

1. Environmental Protection Agency, *Profile of the Motor Vehicle Assembly Industry*, September 1995, EPA 310-R-95-009.
2. Environmental Protection Agency, *Facility Pollution Prevention Guide*, May 1992, EPA 600-R-92-088.
3. Environmental Protection Agency, *Guide to Cleaner Technologies, Alternatives to Chlorinated Solvents for Cleaning and Degreasing*, February 1994, EPA/625/R-93/016.
4. Environmental Protection Agency, *Guides to Pollution Prevention: The Automotive Refinishing Industry*, October 1991, EPA/625/7-91/016.
5. New York State Department of Environmental Conservation, *Environmental Compliance and Pollution Prevention for Small Quantity Generators*, March 2003.
6. New York State Department of Environmental Conservation/Empire State Development, *The Environmental Self-Audit For Small Businesses*, January 1994.
7. Environmental Facilities Corporation, *Surface Coaters, An Overview of Pollution Prevention, Rules, and Regulations*, January 1997.
8. University of Northern Iowa, Iowa Waste Reduction Center, *Vehicle Maintenance Pollution Prevention*, 1995.
9. Oregon Department of Environmental Quality, *Keep Your Shop In Tune, A Best Management Practice Guide for Automotive Industries*.
10. New Hampshire Department of Environmental Services, *Automotive Repair and Refinishing Environmental Compliance Manual*, Fall 1996.

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