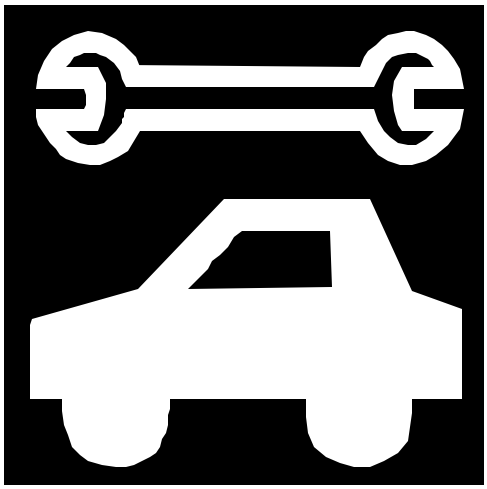

Connecticut Department of Environmental Protection

Pit Stops Fact Sheets

Environmental Regulations and Pollution Prevention Opportunities for the Vehicle Service Industry

Connecticut Department of Environmental Protection
79 Elm Street, Hartford, CT 06106-5127
Arthur J. Rocque, Jr., Commissioner
Office of Pollution Prevention (860) 424-3297
www.dep.state.ct.us/wst/p2/vehicle/abindex.htm

May 2004/Revised July 2005
Printed on recycled paper

Introduction

Preventing Pollution in the Vehicle Services Industry

The Connecticut Department of Environmental Protection (CT-DEP) has prepared these fact sheets for the vehicle services industry, which includes vehicle maintenance and repair facilities, auto body shops and dismantling operations. The fact sheets outline basic regulatory requirements and best management practices. Although they do not constitute legal advice, they represent a starting point for understanding where your business is subject to environmental regulation. In addition, these fact sheets may help you in identifying areas where you can reduce the regulations that you must comply with, protect yourself from fines and liabilities, and protect you and your employees from hazards in the shop.

Note: A guide to assist the auto recycling industry with complying with environmental regulations can be found at www.dep.state.ct.us/enf/autorecyclingguide.pdf.

How to Use These Fact Sheets

Each fact sheet deals with a specific issue or material you may deal with in your business. Most fact sheets are divided into five sections:

- **Potential Environmental Impacts** - Describes the effect of a particular activity or material on the environment.
- **Legal Requirements** - Provides a quick reference for environmental compliance. CGS refers to Connecticut General Statutes, RCSA is Regulations of Connecticut State Agencies and CFR is Code of Federal Regulations.
- **Best Management Practices** - Offers ways to reduce environmental impacts that may also reduce your regulatory obligations, save money, and protect the health of you and your employees.
- **Pollution Prevention Checklist** - A reminder to help you implement some of the best management practices.
- **Did You Know?** - Tells an interesting fact relevant to the material in the fact sheet.

The fact sheets refer to three Appendices. Appendix A summarizes the hazardous waste management requirements that apply to vehicle service facilities. Appendix B is a summary of EPCRA, the federal Emergency Planning and Community Right-to-Know Act. Appendix C provides a quick reference on which vehicle fluids may be mixed and which should be kept separate for recycling.

The last page is **contact information** with CT-DEP and EPA phone numbers you may find useful.

Other Resources

These fact sheets are also available on the CT-DEP web site and are periodically updated. The site is www.dep.state.ct.us/wst/index.htm. There are other resources that you may want to consult:

- The National Automotive Environmental Compliance Assistance Center helps automotive service, collision repair and vehicle service businesses better understand their environmental responsibilities and helps them to achieve compliance with environmental regulatory requirements. www.ccar-greenlink.org
- The Iowa Waste Reduction Center (IWRC) has developed three cost calculators to help the small auto body repair shop determine if it is beneficial for a facility to invest in HLVP spray guns, small batch solvent distillation units and automatic gun wash equipment. www.iwrc.org
- EPA's Design For the Environment (DfE) Auto Refinishing Project works with the automotive repair industry and individual shops to increase awareness of the health and environmental concerns associated with refinishing activities and to identify and encourage the use of safer, cleaner, more efficient practices and technologies. www.epa.gov/dfe/projects/auto

Be aware that implementation of some pollution prevention options (such as installation of a solvent distillation unit) may require authorization, permits or modification to existing permits from the DEP or other agencies.

Disclaimer

Vendors, products and services listed in these fact sheets are supplied as a source of information and are neither approved nor endorsed by the CT-DEP. You should fully investigate any vendor performance claims before investing in such product or service.

Acknowledgments

The **Pit Stops Fact Sheets** are published by the Connecticut Department of Environmental Protection with assistance from a grant from the U.S. Environmental Protection Agency. Many representatives from the CT-DEP and outside groups and individuals helped prepare or review these fact sheets. We thank this group for the time and effort they spent in helping to develop these materials. We especially want to thank the Connecticut Automotive Retailers Association, the Connecticut Auto Recyclers Association, the Towing and Recovery Professionals of Connecticut, the American Public Works Association, and the Connecticut Department of Motor Vehicles - Dealers and Repairers Division for their assistance.

For more information on this guide, please contact:
CT DEP - Office of Pollution Prevention
79 Elm Street, Hartford, CT 06106
(860) 424-3297

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-000 Last Updated: August, 2004

Table of Contents

Fact Sheet Title	Includes Information on:
Used Oil	secondary containment; filters; burning waste oil
Waste Fuel, Tanks & Filters	old gas and diesel; vehicle tanks
Frequently Asked Questions	fluorescent lights; aerosol cans, MSDSs; sealed floor drains; impervious surface; waste haulers; oil filters, waste oil burners
Purchasing Environmentally Preferable Products (EPPs)	alternative parts washers, fluid recycling services, florescent lights; spill prevention and clean-up equipment
Appendix A: Hazardous Waste Management	hazardous waste determinations; testing; generator ID #; storage and disposal; CT regulated wastes
Appendix B: Emergency Planning & Community Right-to-Know Act of 1986 (EPCRA)	LEPC; threshold quantity; reporting (batteries, fuels ethylene glycol, ammonia)
Appendix C: Vehicle Fluids Mixing Chart	mixing or separating waste fluids
Contact Information	DEP and EPA phone numbers

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm

Antifreeze

Potential Environmental Impacts

Antifreeze can pollute groundwater, surface water and drinking water supplies if dumped, spilled or leaked, and is a serious health hazard to humans and animals if ingested. While in an engine, antifreeze can become contaminated with lead or benzene to the point where it must be managed as a hazardous waste. There are two types of antifreeze commonly in use today - ethylene glycol and propylene glycol. The most common is ethylene glycol antifreeze, which is odorless, sweet tasting, and usually greenish-yellow in color. Propylene glycol antifreeze, usually pink, is less toxic than ethylene glycol. Extended life antifreeze, usually orange, contains additional additives and is available in both ethylene and propylene bases.

Legal Requirements

- Antifreeze may not be discharged to the ground, storm drains, septic systems or sanitary sewers or to surface waters. [CGS Section 22a-430]
- A hazardous waste determination must be conducted in order to determine whether your used antifreeze is hazardous or non-hazardous waste. Keep records of testing for at least 3 years. See Appendix A for more information on testing requirements. [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]
- If the antifreeze has been determined to be non-hazardous, it is considered a Connecticut-regulated waste and must be either recycled or disposed of via a permitted waste hauler. There are no specific storage requirements for non-hazardous used antifreeze. [CGS Section 22a-454]
- Antifreeze which has been determined to be hazardous waste, must either be recycled or disposed of via a permitted hazardous waste hauler. While stored on-site, it must be managed in accordance with hazardous waste storage requirements. See Appendix A for more information. [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]
- If you recycle hazardous antifreeze on-site, you must file a DEP Recycling Registration with the CT-DEP at least 30 days prior to recycling. For a copy of the registration form, contact the CT-DEP at (860) 424-3023. [RCSA Section 22a-449(c)-101(c)]
- A hazardous waste determination must be conducted on any used filters from recycling antifreeze and on any contaminated materials that were used to clean up antifreeze spills. Keep records of testing for at least 3 years. See Appendix A for more information. [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]
- Report antifreeze as part of your hazardous and toxic chemical inventory and notifications required under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [40 CFR 355] if over 10,000 pounds of ethylene glycol is are stored on-site. See Appendix B for more information on EPCRA requirements.

Best Management Practices

- ★ Segregate used antifreeze from other wastes. Label the container “Waste Antifreeze.”
- ★ Use the less toxic propylene glycol antifreeze where appropriate. Check with the car manufacturer or owner's manual to determine the recommended type(s) of antifreeze.
- ★ Recycling options for antifreeze include:
  1. Contract with an on-site mobile recycling service that is permitted by CT-DEP to recycle antifreeze. A list of permitted companies can be obtained from the CT-DEP by calling (860) 424-4193; or
  2. Contract with a hauler that recycles the antifreeze off-site. If recycling off-site, use a CT-DEP permitted hauler for transportation to a permitted facility for recycling, treatment, storage or disposal. A list of permitted transporters can be obtained from the CT-DEP by calling (860) 424-4193; or
  3. Purchase on-site recycling equipment and recycle at your facility.
- ★ If recycling antifreeze on site, make sure to keep the different types separated.
- ★ Use drip pans and funnels when transferring antifreeze to minimize spills and drips.
- ★ Store antifreeze in a container that can be completely drained with a wide opening. Keep antifreeze storage containers closed at all times.
- ★ Provide secondary containment to prevent spills from entering ground water or stormwater.
- ★ Wear eye protection, clothing that covers exposed skin and rubber gloves when transferring antifreeze. Pour slowly and carefully to avoid splashing.
- ★ Never mix antifreeze with other chemicals.

Used antifreeze, labeled and stored on secondary containment

Pollution Prevention Checklist

- ✓ Do you recycle used antifreeze? YES NO N/A
- ✓ Do you promote the use of less toxic, propylene glycol antifreeze? YES NO N/A
- ✓ Do you provide secondary containment for your used antifreeze containers to prevent spills from entering groundwater or stormwater? YES NO N/A

Did You Know? Recycling waste antifreeze may reduce your monthly hazardous waste totals and can minimize the regulations that you are required to comply with by reducing your hazardous waste generator status.

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Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.
Fact Sheet: DEP-P2-PITSTOPS-FS-001 Last Updated: August, 2004

Aquifer Protection

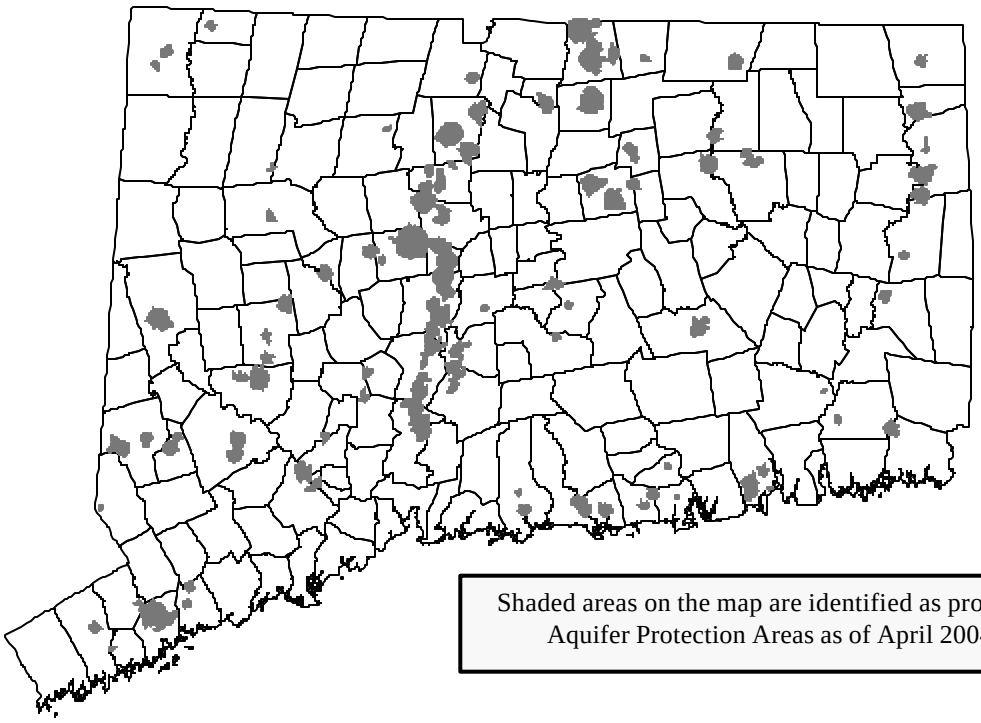
Potential Environmental Impacts

Most vehicle service facilities use petroleum products and also may have hazardous materials and/or wastes. These substances pose a threat to the drinking water supply if improperly stored or handled. Connecticut's Aquifer Protection Program was developed to protect major public water supply wells to ensure a plentiful supply of public drinking water for present and future generations.

Aquifer Protection Areas (sometimes referred to as "wellhead protection areas") will be designated around the state's 122 active well fields in sand and gravel aquifers that serve more than 1000 people. Land use controls, which will include requirements for existing facilties, will be imposed in those areas to minimize the potential for contamination of the well field. Preliminary mapping indicates that 82 towns will have aquifer protection areas designated for existing wells (see the listing and map below). Eventually, additional protection areas will be designated for sites of future wells.

Municipalities with Proposed Aquifer Protection Areas

Avon, Beacon Falls, Berlin, Bethany, Bethel, Bethlehem, Bolton, Bristol, Brooklyn, Burlington, Canton, Cheshire, Clinton, Colchester, Coventry, Cromwell, Danbury, Darien, Derby, East Lyme, East Windsor, Enfield, Essex, Farmington, Glastonbury, Granby, Goshen, Guilford, Griswold, Hamden, Killingly, Killingworth, Ledyard, Litchfield, Madison, Manchester, Mansfield, Meriden, Middletown, Montville, Naugatuck, New Canaan, New Hartford, New Milford, Newtown, North Canaan, North Haven, Norwalk, Old Saybrook, Oxford, Plainfield, Plainville, Plymouth, Portland, Prospect, Putnam, Ridgefield, Rocky Hill, Salisbury, Seymour, Shelton, Simsbury, Somers, Southbury, Southington, Stafford, Stamford, Stonington, Thomaston, Thompson, Tolland, Torrington, Vernon, Wallingford, Watertown, Westbrook, Weston, Westport, Willington, Windsor, Windsor Locks, Woodbury



Shaded areas on the map are identified as proposed Aquifer Protection Areas as of April 2004

Legal Requirements

- Once the Aquifer Protection Areas are formally designated, existing businesses will be notified by the CT-DEP or the municipality. If your vehicle service facility is in one of these affected areas, you will have to comply with the legal requirements listed below [RCSA Sec. 22a-354i-1 through 10]:
  - Register with the DEP and/or municipality within 180 days of the Aquifer Protection Area designation [RCSA Sec. 22a-354i-7]. Existing facilities are "grandfathered" into the program, if they are registered. It is therefore important for existing facilities to register. Note: New vehicle service facilities are prohibited from locating in Aquifer Protection Areas [RCSA Sec. 22a-354i-5(a)].
  - Registrations must be renewed every five years, and transfer of the registration to a new owner is allowed [RCSA Sec. 22a-354i-7(g)].
  - Obtain a permit to add a regulated activity to a registered facility [RCSA Sec. 22a-354i-8]. For example, if an existing vehicle repair facility wanted to add car washing, an aquifer protection permit for the car wash would be needed. The CT-DEP or the municipality will issue permits for a ten-year period. Permits may be renewed, or transferred to another owner [RCSA Sec. 22a-354i-8(g) and (i)].
  - Registered and permitted facilities must certify compliance with the Best Management Practices outlined in the regulations [RCSA Sec. 22a-354i-9]. For instance, hazardous materials must be stored inside a building or under a roofed area and a materials management plan must be developed and implemented at the facility.

For more information, contact the CT DEP's Aquifer Protection Area Program at (860) 424-3020 or visit the web site at www.dep.state.ct.us/wtr/aquiferprotection/index.htm.

Did you know?

Clean water is vital for our very survival. Until recently, people assumed that it would always be plentiful in Connecticut. The events of the past decade have shown that groundwater, like surface water, is increasingly at risk from our chemical-dependent society.

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Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-002 Last Updated: August, 2004

Pit Stops Fact Sheet

Batteries (Lead Acid)

Potential Environmental Impacts

If handled improperly, lead acid batteries removed from vehicles pose certain hazards. Battery components are toxic and corrosive, and can also be a fire and explosion hazard. Lead and sulfuric acid can contaminate the air, soil and water. Direct contact with sulfuric acid can burn the skin and eyes. Exposure to lead in the environment can pose a serious health hazard to children. Lead is also very toxic to aquatic life.

Batteries stored improperly

Legal Requirements

- Spent lead acid batteries must be recycled in Connecticut, and may not be disposed of with other solid wastes [RCSA Section 22a-241b-2(1)(H), CGS Section 22a-256g(a)].
- If you sell lead acid batteries at your facility, you must accept a used lead acid battery for each new battery that is sold to a customer. Customers that are not returning a used battery at the time of a new battery purchase must pay a five-dollar deposit (sometimes referred to as a "core charge"). This deposit must be refunded to the customer if they return a used battery, with their purchase receipt for the new battery, within 30 days of purchase. If the customer does not return a used battery within 30 days, the retailer is allowed to keep the deposit. Retailers must post written notice informing consumers of these requirements. [CGS Sections 22a-256h and -256i].
- There are **two options** for managing spent lead acid batteries prior to sending them for off-site reclamation. Batteries can be managed according to: (1) the Universal Waste Rule [RCSA Section 22a-449(c)-113, 40 CFR 273] or, alternatively, (2) under the special lead-acid battery recycling rules [RCSA Section 22a-449(c)-106(c)] (see below for requirements for both options).

1. **Universal Waste Rule requirements.** Facilities that store less than 5,000 kilograms (11,000 pounds) of spent lead-acid batteries would be classified as "Small Quantity Handlers" under these rules. Such handlers are required to do the following [40 CFR 273 Subpart B, RCSA Section 22a-449(c)-113(a)]:
    - Mark all batteries (or containers holding such batteries) with the words "Universal Waste-Batteries," "Waste Batteries," or "Used Batteries."

- Store batteries for no more than one year before sending them off-site for recycling.
- Place any battery that shows signs of leakage, spillage, or damage in a container that is kept closed, is structurally sound, and is compatible with the contents of the battery.
- If there is a spill or release involving batteries or electrolyte (the fluid in the battery), immediately contain the spilled materials. Special spill kits for acid cleanup are commercially available. Avoid using rags or natural absorbents (e.g., corncobs, sawdust) because these could pose a fire hazard when used to clean up acid. Perform a hazardous waste determination on any spill cleanup residues and manage them in accordance with hazardous waste requirements (see Appendix A).
- Before shipping batteries off-site, ensure that they are packaged, marked, labeled, and placarded in accordance with U.S. Department of Transportation (DOT) rules for hazardous materials.
- Ship the batteries to another Universal Waste handler, or to an authorized destination facility for recycling. Prior to shipment, ensure that the receiving facility agrees to receive the shipment. Any shipments that are rejected must be taken back, or directed to another handler or destination facility.

In addition, if you transport batteries from one site to another, you must comply with Universal Waste transporter requirements [40 CFR 273 Subpart D].

2. **Lead acid battery recycling rules**. Persons managing their lead acid batteries under this set of rules must do the following [RCSA Section 22a-449(c)-106(c)]:
   - Segregate batteries from paper, rags, garbage, flammables, scrap metal or hazardous chemicals by means of a dike, berm, wall or other physical barrier.
   - Store spent lead acid batteries on an impervious surface (such as concrete sealed to protect the surface from degradation), and inspect spent lead acid batteries weekly for leaks and deterioration.
   - Open, handle or store spent lead acid batteries so that the battery case does not rupture, leak, or produce short circuits.
   - Although the lead-acid battery recycling rules do not specifically require it, before shipping batteries off-site, ensure that they are packaged, marked, labeled, and placarded in accordance with U.S. DOT rules for hazardous materials.

♦ Regardless of which set of rules lead-acid batteries are managed under, a hazardous waste determination must be conducted on spilled acid and broken lead acid batteries, and any materials used to clean a spill, to establish whether or not their disposal is subject to hazardous waste regulations [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]. Manage hazardous waste as described in Appendix A.

- ♦ Report the chemicals in lead acid batteries (sulfuric acid and lead) as part of your hazardous and toxic chemical inventory and notifications required under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [40 CFR 355] if over 500 pounds of batteries are stored on-site. See Appendix B for more information on EPCRA requirements.

Best Management Practices

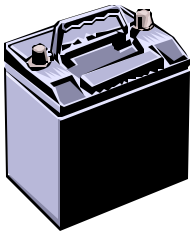
- ★ Avoid long-term storage of lead acid batteries by sending accumulated batteries to a reclaimer within six months of receipt. Limit accumulation of large quantities of spent batteries. If necessary, ship more frequently.
- ★ Store spent lead acid batteries upright in a secure location, protected from the elements.
- ★ Never stack batteries directly on top of each other. Store on acid-reistant racks or shelving, or layer with wood.
- ★ Never drain batteries or crack the casings.

Batteries protected from the elements

- ★ Place cracked or leaking batteries in a sturdy, acid-resistant, leak-proof, sealed container (e.g., a sealable 5-gallon plastic pail). The container should be kept closed within the battery storage area.
- ★ Strap batteries to pallets or wrap batteries and pallet in plastic during transport.
- ★ Keep written records of weekly inspections of spent lead acid batteries.

Pollution Prevention Checklist

- ✓ Do you store spent lead acid batteries in a covered area, either on acid-resistant shelving or layered with wood, if stacked? YES NO N/A



Did You Know?

Lead acid batteries top the list as the most highly recycled consumer product. Approximately 93% of all battery lead is recycled.

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Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-003 Last Updated: August, 2004

Pit Stops Fact Sheet

Body Repair and Painting

Potential Environmental Impacts

Auto body repair and painting have potential air and water quality impacts. Styrene is the main reactive component of body filler (often referred to as Bondo™) prior to being mixed with hardener. Styrene is toxic to aquatic organisms, is listed as state and federal hazardous air pollutant, and is a possible carcinogen. The dust resulting from the sanding of body filler is not toxic, but should be swept or vacuumed up.

Most paints contain volatile organic compounds (VOCs) that evaporate quickly and are ignitable. Many paints are also toxic. When released to the atmosphere, VOCs combine with combustion emissions of nitrogen oxides (NO_x) to form ground level ozone, which damages lungs and degrades many materials.

Vent design could cause odors to reach neighboring property

Legal Requirements

- Automotive refinishing operations must be performed in accordance with certain requirements that are summarized below. If any of these requirements are not met, the facility must obtain an individual permit from the CT DEP. [RCSA Section 22a-174-3b]
  1. You must maintain records for the past 5 years demonstrating that you have not used more than 2,000 gallons of VOC containing paints and thinner for the premises in any calendar year. Purchase records can be used to demonstrate compliance.
  2. Paints and coatings must be applied by one of the following means:
     - high volume low pressure spray equipment (HVLP guns),
     - electrostatic application equipment, or
     - any other application method that has a manufacturer's guaranteed transfer efficiency of at least 65%.
  3. Spray operations must take place in an enclosed area. If a spray booth is used, it must have particulate control equipment that is operated and maintained in good working condition.

4. Application equipment must be cleaned using one of the following means;
   - in a device that remains closed at all times when not in use,
   - in a system that discharges unatomized cleaning solvent into a waste container that remains closed when not in use,
   - in a vat that allows for disassembly and cleaning of application equipment and that is kept closed when not in use, or
   - in a system that atomizes spray into a paint waste container that is fitted with device designed to capture atomized solvent emissions.
5. You must keep records of the amount of paint and solvent used, in gallons, for each month and each 12-month rolling aggregate. These records must be kept for a minimum of 5 years and be available for inspection by the CT-DEP.

- **VOC Content:** The U.S. EPA has a rule that limits the VOC content of all vehicle-refinishing coatings. Although these lower VOC paints are more expensive to buy, they provide better coverage and this can translate into significant overall savings. The manufacturer's guidelines for proper mixing and application techniques should be followed to avoid inferior finishes that exceed the VOC standards.
- **Odors:** There are regulations covering emission of odors to the extent that they constitute a nuisance-by being injurious to public health or welfare, or unreasonably interfering with the enjoyment of life or the use of property [RCSA Section 22a-174-23(a)]. Odors from auto refinishing operations can be minimized by properly exhausting the spray booth.
- **Refinishing Wastes:** You must determine if your vehicle refinishing wastes (including leftover paints, unused body filler, spray gun solvents, rags, paint booth filters and paint-related debris) or any materials used to clean a spill, are hazardous [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]. See Appendix A for more information on hazardous waste determinations and proper storage and disposal requirements.

For more information about air emission requirements, contact CT-DEP's Bureau of Air Management at (860) 424-3027.

Best Management Practices

- Dust, sand, grit or other material from sanding of body filler or grinding of parts should be swept or vacuumed at least once per day and immediately prior to floor washing.
- Train employees to use spray equipment with high transfer efficiency.

Painting with HVLP gun in spray booth

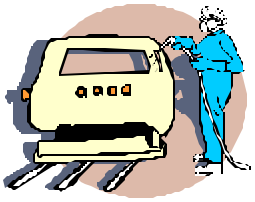
- ★ Limit the amount of leftover paint and decrease solvent use by using a smaller paint spray gun cup.
- ★ Used solvent can be reused for initial rinse-out of spray gun. Reuse solvents and thinners by draining the clean product off the top once solids settle out.
- ★ If your facility utilizes an electrostatic eliminator containing radioactive material, ensure personnel are trained in the proper use of this equipment and that the source of radiation does not become exposed. When they are no longer needed, electrostatic eliminators containing radioactive material must either be returned to the manufacturer or properly disposed of in accordance with the manufacturer's directions.
- ★ Use a commercial car wash if your facility is not equipped with a properly permitted wash bay. See the Shop Wastewater fact sheet for more information.

Pollution Prevention Checklist

- ✓ Is your staff trained in the use of spray equipment with high transfer efficiency such as HVLP spray guns? YES NO N/A

- ✓ Do you reuse solvents and thinners by draining the clean product off the top?

YES NO N/A



Did You Know?

Using higher efficiency spray equipment such as HVLP guns can reduce overspray by 25% to 50%.

Mercury Switches

Potential Environmental Impacts

When mercury switches from certain hood and trunk lighting assemblies are not removed prior to compacting or shredding, mercury is released into the environment. Mercury is highly toxic to humans and the environment. It accumulates in the tissues of fish and other organisms in mercury-contaminated water and may be carried up the food chain to humans. Removal and proper management of the mercury switches in vehicles destined for salvage is an important part of keeping mercury out of the environment.

Mercury switches removed from vehicle light assemblies

Legal Requirements

- Mercury switches that are removed from a vehicle are hazardous waste and must be managed and disposed properly. See Appendix A for more information on the management of hazardous wastes.

Where are mercury switches located in a vehicle?

Hood light fixture with mercury switch assembly

Vehicle trunk and hood light switches can contain mercury. A mercury switch is probably being used if the light goes on when the hood is partway up, or you can see that the bulb housing is deliberately mounted at an angle to the hood, Most cars containing mercury switches are American makes and models. For information on the known makes and model of vehicles that contain mercury switches, call the Office of Pollution Prevention at (860) 424-3297.

In addition to the mercury switches in convenience lighting, some relays may contain mercury switches to activate airbags, anti-lock brakes (primarily found in four-wheel drive vehicles), some seat belt systems, and some automatically adjusting suspension systems. Some agricultural equipment, military vehicles, mass transit vehicles, and fire hook and ladder equipment also contain mercury switches.

How are the switches removed in dismantling operations?

- Cut the power supply wire attached to the base of the switch assembly.
- Remove any fasteners in order to separate the entire assembly from the vehicle.
- Carefully remove the mercury switch from the assembly. If the switch cannot easily be removed, put the entire assembly in the collection container. Removing the switch from the assembly will save storage space and may also save on disposal costs.
- If the switch or the assembly looks damaged or corroded, place the switch or entire assembly in a separate plastic container, like a yogurt tub with a tight fitting lid, to prevent leakage.
- For additional information on how to locate and remove switches from specific makes and models, call the DEP- Office of Pollution Prevention at (860) 424-3297.

Best Management Practices

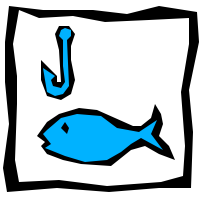
- ★ Remove the mercury switches before the vehicle is junked or crushed. This can be done at the same time as removal of vehicle fluids, batteries, refrigerants and non-deployed airbags.
- ★ Do not place the switches in tin or aluminum containers because mercury may combine with these metals and leak through the seams.
- ★ The switches are very small and easy to inadvertently put in clothes pockets and end up in the trash or wash. Educate your staff so that they understand switches are hazardous waste and should be placed in the collection container immediately after removal.

Proper storage of mercury switches

Pollution Prevention Checklist

✓ Do you remove mercury switches from vehicles before they are junked or crushed?

YES NO N/A



Did You Know?

One gram of mercury, the amount contained in one switch, can pollute the aquatic life of a one-acre lake.

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-005 Last Updated: August, 2004

Parts Cleaning

Potential Environmental Impacts

Degreasers used to clean metal parts may be solvents (chlorinated or non-chlorinated) or aqueous (water-based) cleaners. Solvent degreasers can be derived from variety of sources ranging from petroleum to orange peels. They usually contain volatile organic compounds (VOCs) that can evaporate quickly and combine with combustion emissions to form ground level ozone, a major component of "smog." Ozone damages lungs and degrades many materials. When solvents are released and reach water, even in very small quantities, they may render the water unfit for human consumption and uninhabitable for aquatic life. Many solvents are also flammable and may pose a fire hazard.

Solvent Parts Washer
(lid should be closed when not in use)

Legal Requirements

- A hazardous waste determination must be conducted to establish whether or not disposal of waste solvents and parts washer solutions is subject to hazardous waste regulations [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]. Manage hazardous waste as described in Appendix A.
- See Rags and Absorbents Fact Sheet for more information on managing solvent-soaked rags.
- Any parts washer that uses VOCs at room temperature must follow these equipment design and operating procedures [RCSA Section 22a-174-20(l)]:
  1. The cover must be easily operated with one hand and closed whenever the parts washer is not being used for 2 minutes or more.
  2. Parts must be covered during draining.
  3. Waste solvent must be stored in covered containers.
  4. Cleaned parts must be drained for at least 15 seconds, or until dripping ceases, whichever is longer.
  5. Degreasing solvent must be sprayed as a compact fluid stream (not a fine, atomized, or shower type) and at a pressure which does not exceed 10 psi.
  6. Operation must cease at the occurrence of any visible solvent leaks.
  7. Post labels on or near each unit summarizing the applicable operating requirements.
  8. Keep monthly records on the amount of solvent added to each unit.

Best Management Practices

- ★ Make sure that your parts washer is clearly labeled with the type of cleaner it contains.
- ★ Use aqueous (water-based) cleaners containing no VOCs. Don't use a toxic or flammable solvent if you don't have to. Aqueous spray cabinets and ultrasonic units can clean even difficult-to-clean parts such as wheel bearings.
- ★ Use oil skimming and filtration to extend aqueous solution life. Skimmed oil can be recycled along with used oil. Spent filters can sometimes be recycled along with used oil filters.
- ★ Very heavily soiled parts should be pre-cleaned by scraping off the excess and then wiping with a rag.
- ★ Do not contaminate cleaning solution with other degreasers such as aerosol solvents. Chlorinated solvents and other hazardous chemicals may be included in such products as carburetor cleaners, engine degreasers, and brake cleaners. Always check for hazardous ingredients on the Material Safety Data Sheets (MSDS) provided by the vendor.
- ★ Before purchasing or leasing an aqueous parts washer - 1) check with other facilities to learn about the unit's performance and 2) ask vendors for a trial period to test out the unit at your facility. For more information on aqueous parts cleaning, including cost comparisons and vendors, see the Purchasing Environmentally Preferable Products (EPPs) Fact Sheet.
- ★ Never discard any degreasers into sinks, floor drains or onto the ground.

Using an aqueous-based parts washer

Pollution Prevention Checklist

- ✓ Do you use aqueous (water-based) parts washers, where practical? YES NO N/A

Did You Know?

Your greatest cost for parts cleaning is labor. The time spent cleaning parts is time you could otherwise spend servicing vehicles. Aqueous spray cabinets have substantially reduced labor costs for many facilities.

For a copy of a case study of a Connecticut facility that reduced its costs with a spray cabinet, contact CT-DEP's Office of Pollution Prevention at (860) 424-3297 or visit www.dep.state.ct.us/wst/p2.

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2 PITSTOPS-FS-006 Last Updated: August, 2004

Pit Stops Fact Sheet

Petroleum Storage Tanks

Potential Environmental Impacts

Petroleum storage tanks have the potential to leak into the environment. The complex hydrocarbon compounds in oil and gasoline are toxic to aquatic life, upset fish reproduction and interfere with growth and reproduction of bottom dwelling organisms. A leak of one gallon of gasoline can contaminate the water supply for 50,000 people. Leaking tanks can threaten human safety by causing fires or explosions from ignitable vapors collecting in places such as basements or sewers.

Removal of soil contaminated by a leaking underground storage tank

Legal Requirements

- **Underground Petroleum Storage**: Petroleum tanks with ten percent or more of total volume below grade (including the volume of connected underground pipes) are considered Underground Storage Tanks (USTs). For vehicle service operations, regulated tanks include gasoline, diesel fuel, kerosene, and used oil USTs of any size and heating oil USTs with a capacity of 2100 gallons or greater. Oil/water separators are not subject to UST requirements but must be in compliance with all applicable standards for the management of wastewater (see the Wastewater fact sheet).

  USTs must meet certain requirements [RCSA Section 22a-449(d)-1 and Sections 22a-449(d) 101-113] which are summarized below:

  1) the tank and piping must be constructed of fiberglass-reinforced plastic or steel with manufacturer applied anti-corrosive coating and cathodic protection. Both types of UST systems are installed according to manufacturer's specifications;
  2) the facility has an approved method of leak detection which includes the maintenance of all activity records for 5 years;
  3) all UST systems equipped with cathodic protection shall be tested within 6 months of installation and at least annually thereafter;
  4) fill-pipes on tanks have means to collect spills from delivery hoses;
  5) the tanks have overfill protection, such as automatic shutoff devices which activate at 90% UST capacity and restrict flow during deliveries;
  6) the tank be registered with the CT-DEP (on the Notification Form *"Underground Storage Facility Notification Form,* EPHM-6");

Additionally, all new tanks and/or piping installed on or after October 1, 2003 must be double-walled with continuous interstitial monitoring. [Public Act No. 03-218, Section12]

Release detection methodologies that use a dipstick are not allowable unless the UST system is less than 10 years old. However, manual tank gauging may continue to be used for tanks with a capacity of 550 gallons or less.

Tanks not meeting these requirements must be properly closed [RCSA Section 22a-449(d)-107]. Failure to properly close non-upgraded USTs can result in monetary fines.

UST Reporting and Record Keeping

You must submit the following information to the CT-DEP:

1. Copies of all Notification Forms;
2. Reports of all suspected releases and corrective actions; and
3. Notification before permanent closure or change-in-service. Sampling under the tank, lines and dispensers is required at time of closure. If contamination is discovered, it must be reported immediately to the CT-DEP and corrective action reports must be submitted.

You must keep and maintain the following records at the UST site and make them immediately available for inspection by CT-DEP:

1. Copies of all Notification Forms;
2. Documentation of annual tests of corrosion protection equipment;
3. Documentation of UST system repairs;
4. Documentation of compliance with release detection requirements; and
5. Results of the site investigation conducted at permanent closure.

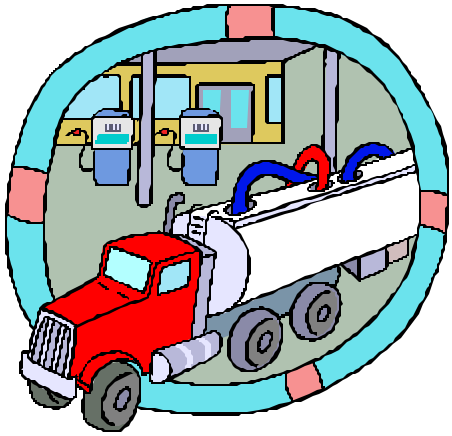
These records must be maintained at the UST site for at least five years beyond the operational life of the UST system. Records, if greater than 5 years old, or with written approval by the Commissioner of the CT-DEP, may be kept at a readily available, alternative site, but must be made immediately available to CT-DEP inspectors upon request.

Contact CT-DEP's Underground Storage Tank Program at (860) 424-3374 for copies of the Notification Form and for additional information on UST requirements.

- **Aboveground Petroleum Storage:** If your facility stores oil (includes any kind or form, including gasoline) in aboveground tank(s) with a total aggregate volume of over 1,320 gallons (containers of less than 55 gallons are exempt) it may require an SPCC Plan [40 CFR 112.1]. The SPCC Plan outlines a facility's oil containment systems and procedures to prevent spills and contingency plans in case of spills. (See the SPCC Plans Fact Sheet for more information.) The aboveground storage tank should be located within a dike or over an impervious storage area with containment volumes equal to 110% of the capacity of the storage tank.

- **Gasoline Vapor Recovery:** Gasoline vapors contain significant amounts of air toxics, including volatile organic compounds. To control emissions of these vapors, the following regulations were implemented:

  Stage I vapor recovery - Gasoline tank trucks are required to collect gasoline vapors displaced during delivery. All gasoline storage tanks with a capacity of 250 gallons or more must have a permanent submerged fill pipe (drop tube) with a discharge point eighteen (18) inches or less from the bottom of the storage tank unless it is a pressure "tank". [RCSA Section 22a-174-20(a)(3]

  Stage II vapor recovery - Gasoline stations that pump more than 10,000 gallons of gasoline per month are required to install vapor recovery systems on gasoline pumps, which recover vapors when vehicles are refueled. The Stage II vapor recovery system must be tested when installed and every 5 years or when there is a major modification. [RCSA Sections 22a-174-30]
  Note: A proposed regulatory change will require Stage II vapor recovery systems be tested every 3 years.

  For more information on Stage I and Stage II Vapor Recovery requirements, contact the CT-DEP's Bureau of Air Management at (860) 424-3028.

- **MTBE**: The use of MTBE in gasoline is banned in Connecticut. [Public Act No. 00-175 and Public Act No. 03-122] Fuel suppliers have replaced MTBE with ethanol. For more information, visit the CT-DEP's website www.dep.state.ct.us/air2/mtbe/mtbe_faq.htm or call the CT-DEP's Bureau of Air Management at (860) 424-3027.

- **Gas Cans:** A proposed regulation will require portable fuel containers sold in Connecticut be designed to minimize spillage and fuel evaporation. For more information, contact the CT-DEP's Bureau of Air Management at (860) 424-3027.

- **Spills:** Any spill or release of oil or petroleum product, chemical or waste must be reported to the CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338 [CGS Section 22a-450]. See the Spill Reporting Fact Sheet for more information on the requirements.

  A hazardous waste determination must be conducted on any materials resulting from the clean-up of a spill to determine whether or not disposal of the materials is subject to hazardous waste regulations [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2(A)]. See Appendix A for information on hazardous waste determinations.

- **EPCRA:** If your facility stores 10,000 pounds or more of gasoline, diesel fuel, and/or fuel oil, either above- or underground for dispensing or for on-site use, you may have to report storage of that substance under EPCRA (The Emergency Planning and Community Right-to-Know Act of 1986). [42 USC 11001, and 42 CFR 355] For specific reporting requirements, see Appendix B.

Best Management Practices

- ★ Keep all information about registered underground storage tanks on file in a central location at the underground storage tank site.
- ★ Remove debris (e.g., leaf litter, sand) regularly from the spill bucket surrounding the fill pipe. If liquid petroleum does spill from the hose into the bucket during delivery or removal, a clean spill bucket will allow for the material to be drained back into the tank.
- ★ If possible, cover the outdoor aboveground tanks with a roof to prevent rainwater from filling the containment area.
- ★ Install a permanent submerged fill pipe (drop tube) with a discharge point of 6 inches from the bottom of the tank.

Pollution Prevention Checklist

- ✓ Is debris regularly removed from the spill bucket to prevent contamination?

  YES NO N/A

- ✓ Are outdoor aboveground tanks covered to prevent rainwater from filling the containment area? YES NO N/A

Did You Know? Your business could incur substantial economic loss as a result of a leaking tank including loss of property value from contamination and the expense of cleanup.

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm

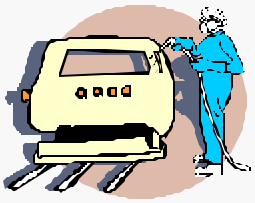
Property Transfer

The Property Transfer Program requires that the seller of certain properties or businesses disclose the environmental conditions to the buyer. If further investigation and/or remediation are necessary, the buyer and seller can negotiate the responsibility prior to the sale. At the time of the sale, the parties involved must file a form notifying the CT-DEP of the condition of the property. This provides the CT-DEP the opportunity to ensure that any identified environmental impacts associated with the property are addressed appropriately.

Legal Requirements

- The Property Transfer law [CGS Section 22a-134 through 22a-134e and 22a-134h] requires the disclosure of environmental conditions when certain properties or businesses (referred to as "establishments") change ownership.

For the vehicle service industry, establishments include:



- any real property at which, or business operation from which, a vehicle body repair shop is operating or has operated, at any time since May 1, 1967, even if it is no longer in operation, or

- any real property at which any business operation from which, on or after November 19, 1980, generated more than 100 kilograms of hazardous waste in one month.

  This does not include:

  1) hazardous waste that was generated as a result of the remediation of polluted soil, groundwater or sediment, or
  2) hazardous waste related to the resale of motor vehicle fuel from service stations (e.g., sludge from bottom of storage tanks).

- One of the four Property Transfer forms must be filed, along with its associated fee, with the CT-DEP no later than 10 days after the transfer of the establishment.
  (Note: If the establishment has been sold since October 1, 1987, the parties to the past transfer should also have filed a form with the CT-DEP at the time of that sale.)

  In order to determine which form to file, the parties to the transfer must evaluate the environmental condition of the entire parcel being sold. See the following description of the forms.

- Use **Form I** when there has been no release of hazardous wastes or hazardous substances.

  Form I can also be used if any release(s) of hazardous substances (not hazardous wastes) have been cleaned up in accordance with the remediation standards [RCSA Section 22a-133k]. An Environmental Condition Assessment Form summarizing the environmental conditions at the site must accompany the filing.

- Use **Form II** when there has been a release(s) of hazardous waste or hazardous substance, but the site has been cleaned up in accordance with the remediation standards [RCSA Section 22a-133k].

  Written documentation, either from the CT-DEP or a Licensed Environmental Professional, substantiating this filing must be submitted with Form II. Licensed Environmental Professionals (LEPs) are individuals authorized by the CT-DEP to certify clean-ups in lieu of the CT-DEP review.

- Use **Form III** when a release of hazardous waste or hazardous substance has occurred at the site which has not been cleaned up or when the environmental conditions of the site are unknown.

  An Environmental Condition Assessment Form must accompany the filing of Form III.

- Use **Form IV** when a release(s) of hazardous waste or hazardous substance has occurred at the site, the site was cleaned up in accordance with the remediation standards [RCSA Section 22a-133k] and the only outstanding issue is monitoring.

  An Environmental Condition Assessment Form must accompany the filing of Form IV. Written documentation, which substantiates this filing, either from the CT-DEP or a Licensed Environmental Professional, must be submitted with Form IV.

For more information or for copies of the Property Transfer forms, contact the CT-DEP's Property Transfer Program at (860) 424-3705 or you may download the Property Transfer forms from www.dep.state.ct.us/pao/download.htm.

Did you know?

The penalty for violating the property transfer law can be up to $25,000 per day.

Rags and Absorbents

Potential Environmental Impacts

Contaminated rags (also called wipes, wipers, and shop towels) and absorbents (such as mats, socks, and loose material such as speedi-dry) that are improperly managed may pose fire, health and environmental risks. Minimizing contamination of rags and absorbents reduces health risks to workers and emissions of volatile organic compounds to the air, decreases liability risks, and saves money by minimizing solvent use.

Legal Requirements

- How used rags and absorbents are managed depends on what they are contaminated with. [40 CFR 279 and RCSA Section 22a-449(c)-119; 40 CFR 261 and RCSA Section 22a-449(c)-101; CGS Section 22a-454]

  If the used rag or absorbent is:

  - dripping with used oil, manage as used oil. (See Used Oil Fact Sheet.)
  - contaminated with used oil, but not dripping, perform a hazardous waste determination. If not hazardous, manage as Connecticut-regulated waste. If hazardous, manage as hazardous waste. (See Appendix A for more information.)
  - contaminated with paints or solvents, or other hazardous materials, manage as hazardous waste. (See Appendix A.)
  - contaminated with non-hazardous materials such as waxes, polishing compounds, etc., dispose in regular trash if only a small number are generated (e.g., 1 or 2 rags per dumpster). If significant amounts of these rags or other absorbents are generated, however, they must be segregated and managed as Connecticut-regulated waste. (See Appendix A.)
  - contaminated with other material (such as mild cleaners or soaps), dispose of in regular trash.

- If you lease rags and have them laundered at an industrial rag laundry, and they are contaminated with hazardous waste, you must manage them as hazardous waste until they are picked up for laundering. However, they do not require a hazardous waste manifest.
- If you choose to launder your own rags, you will need a wastewater discharge permit from the CT-DEP, which authorizes you to discharge effluent to the sanitary sewer. Contact CT-DEP's Bureau of Water Management at (860) 424-3018 for more information. [CGS Section 22a-430]

Best Management Practices

- ★ Reduce the amount of solvent used in cleaning through improved work practices. Use solvents only when absolutely necessary. Use non-VOC cleaners.
- ★ Keep oily rags or absorbents separate from those that have been contaminated with hazardous materials such as solvents.
- ★ Store ignitable rags in NFPA-approved (National Fire Prevention Association), labeled containers until they are picked up for laundering or disposal.
- ★ Contract with a permitted industrial laundry service that delivers clean cloth rags and will pick up the soiled rags on a regular basis. The laundry service may require you to limit the solvent and other chemical content of the soiled rags because of the limits on their permit to discharge wastewater into the sanitary sewer.
- ★ All laundries in Connecticut that handle industrial rags must have a wastewater discharge permit from the CT-DEP. Have your laundry service certify that they hold the appropriate permits and they are in compliance with the permit conditions. For a list of facilities that have valid discharge permits and their compliance status with the permit conditions, call the CT-DEP at (860) 424-3018.
- ★ Remove excess solvent from rags by wringing or pressing excess into coverable container, or store rags in a double-bottomed drum that allows the solvent to drip where it can be collected and recycled or managed appropriately.

Proper storage of used rags

Pollution Prevention Checklist

✓ Do you remove excess solvent from rags before having them laundered?

YES NO N/A

.

Did You Know?

Some disposable wipes are wringable and can be re-used as many as 17 times.

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-009 Last Updated: August, 2004

Recycling

Potential Environmental Impacts

Throwing recyclables in the trash has negative impacts on air and water quality and wastes energy and natural resources. Diverting reusable materials from the waste stream through recycling results in using fewer raw materials and reduces the amount of waste that must be landfilled or incinerated.
Note: If your business dismantles vehicles, please see the Auto Recycling Compliance Guide at www.dep.state.ct.us/enf/autorecyclingguide.pdf. for more information on recycling scrap metal and scrap catalytic converters.

Illegally disposed corrugated cardboard and mixed waste

Legal Requirements

- All businesses, municipalities and state agencies are required to recycle [CGS Section 22a-241b(c)]. See the table below for the mandated items that must be recycled by your facility.

What Are The Mandated Items That Must Be Recycled In Connecticut?

Your facility probably does not generate large volumes of some of the mandated items listed in the table below. However, removing these items from your regular waste can reduce the amount you pay for trash disposal. There are no facilities or trash haulers permitted in Connecticut to "pick through" mixed trash to retrieve designated recyclable materials. It is your responsibility to separate your recyclables.

MANDATED ITEM	HOW TO RECYCLE
Used Oil	See fact sheet on "Used Oil" for more information
Lead Acid Batteries	See fact sheet on "Batteries (Lead Acid)" for more information.
Scrap Metal	Recycle items consisting predominantly of ferrous metals (steels), brass aluminum, copper, lead, chromium, tin, nickel or alloy.
Nickel-cadmium Batteries	Call (800) 8BATTERY to find the nearest participating retail outlet that collects these batteries for recycling.
Corrugated Cardboard (has three layers -- a wavy layer between two flat paper layers)	Keep corrugated cardboard separate from other wastes. Remove any plastic, foam, wood, etc. from corrugated boxes. Open and flatten the boxes and place them in a dumpster or compactor used only for corrugated cardboard.
Office Paper and Newspaper	Take it to your municipal recycling center/transfer station or have employees take small amounts of newspapers home for recycling.

Glass and Metal Food/Beverage Containers	The small number of containers generated by the employees who work at your facility can be taken home for recycling or taken to your town's recycling drop-off center or transfer station.
Leaves and Grass Clippings	Rake leaves to a wooded area on the site, or compost leaves on site in a small contained pile. In some towns you may be able to place leaves at the curb for municipal collection or take them to a municipal leaf composting pile. Leave grass clippings on the lawn.

In addition to the items listed above, many municipalities have ordinances that require additional items to be recycled. To find out about those additional items, contact your municipal recycling contact or refer to your local solid waste and recycling ordinance.

Specific questions about recycling options can be answered by your municipality, or call the CT-DEP's Recycling Program at (860) 424-3365 for more information.

Best Management Practices

- ★ Educate employees about separating recyclables from the trash.
- ★ Considering cooperating with other nearby businesses to simplify recycling and reducing costs. Your municipal recycling coordinator may be able to help you set up a program.
- ★ Purchase products made with recycled content to close the recycling loop (i.e., create a market for the products you recycle). The quality of these products is just as good as those made with virgin materials and prices are competitive.
- ★ Purchase frequently used products in bulk (e.g., oil, antifreeze) to reduce packaging waste.
- ★ Keep dumpsters covered or position them in a roofed area. Make sure their drain plugs are intact.

Pollution Prevention Checklist

- ✓ Do you have separate, labeled containers for recyclables at your facility?

  YES NO N/A

Did You Know?

The automobile is the number one recycled product in America. Over 75% of the materials from cars are recycled. Recycled vehicles generate over 12 million tons of recycled steel, saving enough energy to power over 18 million homes for a full year.

Pit Stops Fact Sheet

Refrigerants (CFCs)

Potential Environmental Impacts

The gases used as refrigerants in motor vehicle air conditioners (often referred to as CFCs or Freon™) become an environmental problem when they escape into the air. Some of the refrigerants are chlorofluorocarbons (CFC-12 or R-12). When released into the air, they rise into the upper atmosphere where they damage the protective ozone layer in the stratosphere. The ozone layer absorbs the sun's harmful ultraviolet (UV) radiation, and as it is damaged, living things on the earth become exposed to harmful UV radiation which can lead to skin cancer and cataracts. The newer refrigerants (e.g., HFC-134a or R-134a – see www.epa.gov/ozone/snap/ for complete listing of substitutes) are hydrofluorocarbons, and although they are non-ozone depleting, they contribute to global warming when released into the air.

Legal Requirements

- The federal Clean Air Act prohibits the release (venting) of refrigerant into the atmosphere during any type of motor vehicle air conditioner (MVAC) service, maintenance, repair or disposal, including top-offs. Anyone repairing or servicing MVACs must recycle refrigerants on-site or recover refrigerants or send them off-site for reclamation. [Clean Air Act, Title VI, Sections 608 and 609, 40 CFR 82.34]

- Recovery/recycling or recovery-only equipment must be EPA-approved and this equipment is required even if you are only recharging or topping off systems. [Clean Air Act, Title VI, Section 609, 40 CFR 82.34]

Refrigerant recovery equipment, CFC-134a (left) and CFC-12 (right)

- Any person who performs maintenance, service, repair or disposal of MVACs must be trained and certified in the proper use of refrigerant recovery and recycling equipment. [Clean Air Act, Title VI, Section 609, 40 CFR 82.34]. Training programs must include information on the proper use of equipment, the regulatory requirements, the importance of refrigerant recovery, and the effects of ozone depletion. To be certified, technicians must pass a test demonstrating their knowledge in these areas. A listing of approved training and testing programs is available at the EPA website www.epa.gov/ozone/title6/609/justfax.html or from the EPA Ozone Hotline (800) 296-1996.

- Technicians must keep a copy of their proof of certification at their place of business.

- If refrigerant is recovered and sent to a reclamation facility, records of the name and address of that facility must be kept on file at the service shop. [Clean Air Act, Title VI, Section 609, 40 CFR 82.34] A list of approved reclamation facilities is available from EPA's Ozone Hotline (800) 296-1996 or their website www.epa.gov/ozone/title6/608/reclamation/reclist.html.
- CFC-12 (R-12) has no longer been manufactured as of December 31, 1995. Although production ended, the use is still permitted. CFC-12 used today is constantly being recovered and recycled so there is still refrigerant available. However, the sale of CFC-12 is prohibited to anyone other than certified technicians [Clean Air Act, Title VI, Section 609, 40 CFR 82.34].

Best Management Practices

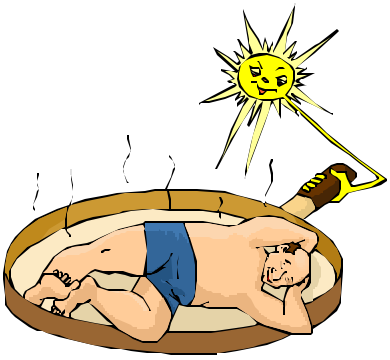
★ Make it a policy to encourage vehicle owners to have leaks repaired to reduce emissions and extend the useful life of their air conditioner. Repair of leaking systems will also help vehicle owners avoid the need to continue to refill systems with high priced refrigerant.

For more information on refrigerants, training and certifications, visit EPA's website – "Just the Facts for MVACs: EPA Regulatory Requirements for Servicing of Motor Vehicle Air Conditioners" at www.epa.gov/ozone/title6/609/justfax.html. You may also contact the EPA at (800) 821-1237 or (617) 918-1858, or the National CFC Hotline at (800) 296-1996, between 10:00 a.m. to 4:00 p.m. Monday through Friday, or the CT-DEP's Bureau of Air Management at (860) 424-3027.

Pollution Prevention Checklist

✓ Do you encourage customers to repair rather than "top off" leaking systems?

YES NO N/A



Did You Know?

The ozone layer acts as a blanket in the stratosphere that protects us from harmful ultraviolet (UV) radiation. Scientists worldwide believe that man-made chemicals such as CFCs are rapidly destroying this layer of gas 10 to 30 miles above the earth's surface. Ozone loss in the atmosphere is likely to lead to an increase in cataracts and skin cancer, which is now one of the fastest growing forms of cancer.

Shop Wastewater

Potential Environmental Impacts

Vehicle maintenance wastewater is floor washdown and incidental drippage from vehicles as a result of routine servicing operations, washing vehicle exteriors or steam cleaning engines, or vehicle dismantling or crushing. It may contain chemicals such as oils, degreasers, gasoline, diesel fuel, detergents, heavy metals and antifreeze. In some instances it may contain solvents. If discharged through a dry well or septic system to the ground, these chemicals may render drinking water supplies unfit for human consumption. If discharged directly or indirectly to surface water these chemicals can be toxic to fish and other aquatic life.

Shop wastewater directed outside is an illegal discharge.

Legal Requirements

- If your facility has floor drains, they must connect to either 1) a sewer line that connects to a sewage treatment plant or, 2) a holding tank. If you do not know where your floor drains lead, the building plans that you have or that are on file at the town hall may show locations of drain discharges. Floor drains must not discharge to a septic system, a drywell, or a storm sewer.
- A permit is required if your facility has floor drains [CGS Section 22a-430]. If you meet the conditions listed below, you may qualify for the *General Permit for the Discharge of Vehicle Maintenance Wastewater*:
  - The facility generates no more than 15,000 gallons per day of vehicle maintenance wastewater.
  - All vehicle wastewater must be treated using an oil and grit separator that has a least a 1,000-gallon capacity and meets specifications outlined in the General Permit.
  - Vehicle wastewater must discharge from the separator either through a sewer line to a sewage treatment plant or to a holding tank that meets the specifications of the General Permit. If the holding tank is installed, you must have a permitted transporter haul the wastewater to a sewage treatment plant that is properly permitted to accept vehicle maintenance wastewater. Contact CT-DEP's Waste Bureau at (860) 424-4193 for a list of permitted transporters.
  - Vehicles must be washed, steam-cleaned and/or serviced within a roofed structure constructed to keep vehicle wastewater separate from stormwater.

- The oil and grit separator must be inspected at least twice per year. A log of these inspections must be kept at the facility. (See the Vehicle Maintenance Wastewater General Permit for the required log form.) The separator must be cleaned out as often as necessary to assure effective operation. The quantity of oil, grease and grit shall not exceed 20% of the distance between the separator base and static liquid level.
- Oil, water and grit removed from the oil and grit separator must be sent to a facility that is permitted to accept such wastes. In addition, the waste must be picked up and hauled to this facility by a permitted transporter. See the Used Oil Fact Sheet for additional requirements on the management of this waste.
- If vehicle wastewater is collected in a holding tank, the wastewater must be picked up by a permitted transporter and brought to a facility that is permitted to accept it. If the facility that you send your wastewater to is a used oil recycler, you must also manage your wastewater under the used oil requirements. (See the Used Oil Fact Sheet for more information on these requirements.)

- Small volume autobody repair facilities and small volume vehicle detailing facilities that discharge less than 500 gallons per day of vehicle wastewater may discharge their vehicle wastewater directly through a sewer line to a sewage treatment plant without treatment. See the Guidance Document for the General Permit to determine if your facility meets the other requirements for a small volume operation.
- Chemical liquids, such as oil or petroleum, antifreeze, paints, degreasers (both solvent and aqueous based), and rust proofing compounds, should be stored and disposed of in accordance to all state and federal requirements. Proper precautions should be taken so that these liquids do not end up discharging into floor drains or outside of the facility. (See Appendix A for waste management and disposal requirements.)

For a copy of the general permit, registration form or guidance document explaining the requirements, visit the "Permits, Licenses and Registrations" section of the DEP website at www.dep.state.ct.us/pao/download.htm#VehicleGP or call the CT-DEP's Bureau of Water Management at (860) 424-3018.

Best Management Practices

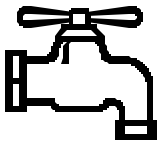
- Adopt a dry shop goal. Keep your shop floor dry and clean.
  1. Clean snow and ice off of the top of vehicles before bringing them inside.
  2. Prevent spills from ever reaching the floor by using appropriate equipment; such as funnel drum covers and overhead fluid delivery systems.
  3. Sweep or vacuum floors often.
  4. Make sure mechanics carry rags so that small spills can be wiped dry when they occur.
  5. Never hose down your work area.
- Consider sealing your shop floor with epoxy or other suitable sealant so spills won't be absorbed and clean-ups will be quicker. It can reduce the liability for a clean-up of a contaminated shop floor and soil below.

- ★ If it becomes necessary to wash the floor, use only the quantity of water needed to produce the appropriate level of cleanliness. Direct all wastewater to a properly permitted floor drain (see Legal Requirements section above). Flushing floor wastes outside constitutes an illegal discharge.
- ★ Always use self-closing faucets and nozzles to ensure no source is left running or unattended. Post this notice by all sinks and drains – "Do not pour any vehicle fluids, paints, solvents, or other wastes down sinks or drains".
- ★ If your vehicle maintenance wastewater is collected in a holding tank and hauled to a permitted facility, you can reduce your costs by segregating the regulated vehicle maintenance wastewater from "household" type wastewater. Wastewater from bathrooms and cafeterias can be discharged to a septic system.
- ★ Only use absorbents like speedi-dry or "kitty litter" when the spill cannot be cleaned with shop rags, dedicated mops, or squeegees. Use absorbent pads and mats to prevent large spills from spreading and entering floor drains. See the Rags and Absorbents Fact Sheet on how to properly manage spent absorbents.
- ★ Clean up spills immediately so that the spilled material does not get tracked outside the building.
- ★ A permanently sealed floor drain should first have a plumber's plug inserted inside the drain. Concrete should then be poured on top of the plumber's plug.

Sealed floor drain -- spill should be cleaned up immediately so that material doesn't get tracked outside the building.

Pollution Prevention Checklist

✓ Do you have a goal of keeping your shop floor 100% dry? YES NO N/A



Did You Know?

More than 50% of the nation's drinking water comes from ground water.

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-012 Last Updated: August, 2004

SPCC Plans

Spill Prevention, Control, and Countermeasure Plans

Legal Requirements

The federal Clean Water Act requires facilities that store any kind of oil above certain volumes to prepare and implement Spill Prevention, Control and Countermeasure (SPCC) Plans to prevent the discharge of oil from a facility into navigable waters or adjoining shorelines. "Oil" is defined in Section 311(a)(1) of the Clean Water Act as "oil of any kind or in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil." EPA interprets this definition to include crude oil, petroleum and petroleum-refined products, as well as non-petroleum oils such as vegetable and animal oils.

SPCC Plans require that your facility have adequate containment, such as berms and dikes around aboveground fuel tanks (ASTs) or use certain double-wall ASTs to protect the soil and water in the event of a spill [40 CFR 112.1]. SPCC Plans are federal requirements, administered by the U.S. Environmental Protection Agency (EPA).

Does Your Facility Require a SPCC Plan?

Your facility needs to develop a SPCC plan if it does any of the following:

- Stores oil above ground in any size tank(s) with a total aggregate volume over 1,320 gallons (containers of less than 55 gallons are exempt); and
- Could reasonably be expected to discharge oil to a "navigable water of the United States" or "adjoining shorelines" considering a possible worst-case scenario. Essentially, the term navigable waters refers to any natural surface water in the United States. This criterion applies to just about every facility in the state that stores oil, since a facility cannot take into consideration any man-made impediments to the flow of oil.

Note: A facility storing over the threshold quantity of oil and arguing that they are not a threat to navigable waters must have a letter from a registered Professional Engineer certifying that a SPCC Plan is not necessary for that facility.

What is an SPCC Plan?

An SPCC Plan outlines a facility's oil containment systems and procedures to prevent an oil spill. It also outlines oil spill response and clean up protocols. Even if you are not required to have a formal SPCC Plan, you should still consider implementing the common sense practices that are part of a spill plan.

Each SPCC Plan is site specific, but must address the following:

- Operating procedures that prevent oil spills;
- Control measures installed to prevent a spill from reaching the environment; and
- Countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches the environment.

Who Writes an SPCC Plan?

The facility can prepare the plan, but a Registered Professional Engineer must certify the plan.

Is There a Particular Form or Format for the SPCC Plan?

EPA does not expect any two plans to look alike. However, at a minimum, all plans must include:

- Facility layout and drainage patterns;
- List of all oil storage tanks and areas;
- Quantities of oil that could be released, with predicted path of flow and flow rate;
- Procedures for receiving oil from supplier, transfer of oil within the facility, end point uses of the oil, waste oil disposal;
- Effects of a spill at the facility, fire hazards, employee evacuation, customer/neighbor considerations, press relations;
- Capacity of required secondary containment devices;
- Clean-up procedures, use of in-house staff versus contractors;
- Notification list. Name(s) and phone numbers of in-house management, remote management, fire and police, municipal, state and federal agencies requiring notification;
- Facility security for prevention of internal sabotage, external vandalism;
- Employee training for spill prevention, oil handling, and spill clean-up; and
- OSHA considerations.

A sample SPCC Plan is available on the web at www.epa.gov/reg3hwmd/oil/spcc/sampleplan.pdf or contact the CT-DEP's Office of Pollution Prevention at (860) 424-3297 for a copy.

Where Should the SPCC Plan be Located?

Required: A copy of the SPCC plan must be maintained at any facility manned at least 8 hours per day. For remote locations, the SPCC plan should be filed at the nearest field office. A copy does not have to be filed with EPA or any other agency, unless it is a condition of a permit or license held by the facility. However, the SPCC plan must be available during normal business hours for review by an EPA inspector.

All employees must be made aware of the SPCC plan.

Highly Recommended: Copies should be made for posting in plain view at oil storage locations.

Does an SPCC Plan Need to be Reviewed and/or Updated?

- The plan has to be reviewed at least once every five years.
- The plan must be amended when there are changes in facility design, construction, operation or maintenance which materially affect the facility's potential for the discharge of oil; or if there are two or more spills in 12 months, or one spill of at least 1,000 gallons.

Who Cares if My Facility Does Not Have a Plan?

- Company management. Having measures in place to prevent spills is cost effective, since spill cleanup can be costly. However, when a plan is in place, spill cleanup can be more efficient, more effective and less costly than if there is no course of action.
- The U.S. EPA. The penalty for failure to have a SPCC Plan can be up to $27,500 per day of violation, up to a maximum of $137,500, if an administrative action is filed. The EPA performs random, unannounced inspections of facilities suspected of needing a SPCC Plan.

What Could You Be Held Responsible for if there is a Spill?

- Removing the material from public property. Cleaning of highways, waterways, storm drains, bridge abutments, etc.
- Removing the material from private property, such as boat hulls, parking lots.
- Paying for natural resources damages (lost parking receipts at public beaches; lost revenues from fishing licenses; replacing killed fish, shellfish and waterfowl).
- Paying for lost livelihood wages of fisherman and shell fisherman, devaluation of property for sale. Private suits.
- Civil penalty for spilling into a water of the U.S.
- Criminal penalty if you fail to notify the federal authorities. State agencies and contractors have no responsibility to notify for you.

For questions about the federal SPCC program, call Donald Grant, Oil Spill-SPCC Enforcement Coordinator for EPA-Region One at (617) 918-1768 or visit EPA's website at www.epa.gov/oilspill/spcc.htm.

Did You Know?
Moral of the story: It's a lot cheaper to prevent a release than to clean one up.

Reporting of Oil, Gas and Chemical Spills

Legal Requirements

In Connecticut, any oil or petroleum product, chemical or waste that is released in any manner constitutes a spill [CGS Section 22a-452c]. Spills also include gasoline overflows and leaks from underground and above ground tanks. Any size spill must be reported to the CT-DEP's Oil and Chemical Spill Response Division.

What Immediate Actions Should be Taken?

In case of a spill, stop the flow, contain the spill, call 911, report the spill to CT-DEP (see below), and then report to the National Response Center if necessary (see below).

When Should a Spill be Reported to the CT - DEP?

In Connecticut, any size spill of oil or petroleum product, any chemical, or waste, must be reported to the CT-DEP. The party causing the spill or pollution and the property owner are responsible for:

- Immediately reporting the spill to the CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338, and beginning the appropriate containment and cleanup efforts, which must be performed by a licensed contractor [CGS Section 22a-454]. The telephone number is staffed 24-hours/seven days a week.
- Completing a written "Report of Petroleum or Chemical Product Discharge, Spillage, Seepage, Filtration" and mailing it to CT-DEP within 24 hours. Contact the CT-DEP at (860) 424-3377 for the form or it may be downloaded – www.dep.state.ct.us/wst/oilspill/spillrep.pdf.

Connecticut law establishes what is called "strict liability" for spills of most pollutants into the environment. This means that the person or business causing the spill and the owner of the property where the pollution occurred are financially responsible for clean up, regardless of fault. All spills must be reported and dealt with quickly.

When Should an Oil Spill be Reported to the Federal Government?

Section 311 of the Clean Water Act disallows the discharge of oil into or upon the navigable waters of the United States, their adjoining shorelines, or where natural resources may be affected [33 USC 1321, 40 CFR 110].

You must report an oil spill to the National Response Center at (800) 424-8802 if:

1. the spill is to navigable waters or the adjoining shoreline, or
2. water quality standards could be violated, or
3. the spill causes a sheen or discoloration, or
4. the spill causes a sludge or emulsion.

When you call the National Response Center to report an oil spill or release, the staff person will ask you the following questions:

1. Name, location and telephone number;
2. Name and address of the party responsible for the incident;
3. Date and time of the incident;
4. Location of the incident;
5. Source and cause of the release or spill;
6. Types of materials released or spilled;
7. Quantity of material released or spilled;
8. Danger or threat posed by the release or spill;
9. Number and type of injuries (if any);
10. Weather conditions at the incident location; and
11. Any other information that may help emergency personnel respond to the incident.

When Should a Hazardous Chemical Spill be Reported to the Federal Government?

You must report a hazardous chemical spill to the National Response Center at (800) 424-8802 if the release could threaten human health off the property.

When you call the National Response Center to report a hazardous chemical spill, the staff person will ask you the following questions:

- The chemical name;
- An indication of whether the substance is extremely hazardous;
- An estimate of the quantity released into the environment;
- The time and duration of the release;
- Whether the release occurred into air, water, and/or land;
- Any known or anticipated acute or chronic health risks associated with the emergency, and where necessary, advice regarding medical attention for exposed individuals;
- Proper precautions, such as evacuation or sheltering in place; and
- Name and telephone number of contact person.

The facility owner or operator is also required to provide a written follow-up emergency notice as soon as practicable after the release. The follow-up notice or notices must:

- Update information include in the initial notice, and
- Provide information on actual response actions taken and advice regarding medical attention necessary for exposed individuals.

Did you know? In the case of spill, the CT-DEP will give you the opportunity to hire a licensed environmental contractor. If you do not make immediate proper arrangements, the CT-DEP may make direct arrangements for the clean up, billing you later for the cost. You have 30 days to pay from the date that the CT-DEP demands payment. After that time, interest and administration costs start to accrue.

Potential Environmental Impacts

Many facilities have outside processes, storage areas and/or material handling areas. Stormwater contacting these outdoor areas can carry pollutants such as oils, solvents, and heavy metals directly into streams or other surface waters, killing aquatic life and polluting areas where people swim, fish and boat. Some activities that are potential sources of stormwater runoff pollution include:

- Outdoor storage including vehicles, tires, parts, drums or other containers,
- Washing of vehicles or equipment outside,
- Compactor and dumpster leakage,
- Open topped dumpsters,
- Truck loading docks: spillage, pavement drains,
- Shop floor washwater directed outside,
- Internal floor drains or trenches connected to storm drains, and/or
- Dismantling of vehicles outside.

Outside dismantling area contaminated with improperly drained vehicle fluids

Legal Requirements

- The CT-DEP has developed general permits to cover the discharge of stormwater runoff. [CGS Section 22a-430]

  The following facilities must register for the "General Permit for the Discharge of Stormwater Associated with Industrial Activity":

  - Any auto recyclers, scrap yards, or battery reclaimers.
  - Any transportation facilities involved in vehicle or equipment maintenance, including federal, state, or municipal public works garages.

  The following facilities must register for "General Permit for the Discharge of Stormwater Associated with Commercial Activity":

  - Any auto dealers, gas stations, or auto repair facilities, which have 5 acres or more of contiguous impervious surface (including roofs, paved parking, roadways and sidewalks).
- If your facility does not fall under categories mentioned above, best management practices must still be used to prevent illegal discharges.
- A stormwater discharge means the discharge of precipitation runoff from any conveyance, such as a pipe, ditch, channel, or swale that is used for collecting and conveying stormwater from areas related to the commercial or industrial activities at the site.

- Both general permits require the development of a Stormwater Pollution Prevention Plan, which is a document outlining the facility's potential pollutant sources, training, good housekeeping and other best management practices to prevent pollutants from getting into stormwater runoff. Annual sampling of stormwater is also required. Sampling may be waived after one year of good results.
- Any interior floor drains that connect to storm sewers, ground, groundwater, or surface water and do not have a permit are illegal in Connecticut [CGS Section 22a-430]. Interior floor drains must be connected to either a sanitary sewer or a holding tank, may require an oil and grit separator and can be permitted under the "General Permit for the Discharge of Vehicle Maintenance Wastewater" (see the Shop Wastewater fact sheet).
- For copies of the general permits, a guidance document for preparing a stormwater pollution prevention plan, or for more information about the requirements, call the CT-DEP's Bureau of Water Management at (860) 424-3018 or visit the "Permits, Licenses, and Registrations" section of the DEP website at www.dep.state.ct.us/pao/download.htm#WaterGP.

Best Management Practices

- ★ Prevent leaks and spills. When removing vehicle fluids, always use a drain pan or vacuum system to capture the fluids. Place drip pans or pads under stored vehicles with leaks.
- ★ Clean up spills immediately. Have spill kits with absorbent materials and brooms, shovels, or scoops readily available around the work areas.
- ★ Handle fluids properly. After you remove vehicle fluids, store the fluids in clearly labeled containers with secondary containment.
- ★ Store oily parts in a way that avoids exposure to rain or snow. This can include storing parts indoors, under a permanent roof on an impervious surface, in leak-proof covered containers, in vehicle bodies or under temporary cover (like tarps).

Pollution Prevention Checklist

- ✓ Do you have spill kits readily available in work areas? YES NO N/A
- ✓ Do you store oily parts under some type of cover? YES NO N/A

Did You Know?

Pollutants carried in storm drainage systems now make up between 50% and 90% of all pollutants reaching Connecticut's surface waters.

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-015 Last Updated: August, 2004

Pit Stops Fact Sheet

Tires

Potential Environmental Impacts

Scrap (waste) tires pose a threat to public health and the environment when improperly managed. If stockpiled, they provide breeding grounds for mosquitoes and vermin. Although tires by themselves are not hazardous, fires in tire piles are very hard to extinguish and produce both toxic smoke and runoff.

Improper storage of scrap tires

Legal Requirements

- Scrap tires are defined "special waste" [RCSA Section 22a-209-1] as opposed to municipal solid waste because they require special handling. Connecticut no longer permits the landfilling of scrap tires, either whole or in pieces. Most scrap tires in Connecticut are burned to create energy at the tire-to-energy facility in Sterling. Also there are volume reduction facilities that process tires.
- If you store more than 10 cubic yards of scrap tires (approximately 100 passenger car tires), you are required to obtain a solid waste permit. [RCSA Section 22a-208a]

For more information, visit CT-DEP's website www.dep.state.ct.us/wst/recycle/tires.htm or call the CT-DEP's Recycling Program at (860) 424-3022.

Best Management Practices

- ★ 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.
- ★ Be sure tire piles are accessible to fire and emergency vehicles.

Pollution Prevention Checklist

- ✓ Do you store your scrap tires indoors or under cover? YES NO N/A

Did You Know?

Retreads contain 75% recycled rubber compared to new tires, which contain no more than 2% recycled content.

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-016 Last Updated: August, 2004

Used Oil

Potential Environmental Impacts

Used oil does not break down easily in the environment and can contain toxic chemicals and heavy metals. If spilled on the ground, poured down storm drains or disposed of with trash, it can pollute surface water or groundwater.

- One gallon of used oil can pollute 1 million gallons of fresh water – a year's supply for fifty people.
- Used oil can foul sewage treatment processes.
- Because of its properties, a cup of oil can spread a very thin sheen over more than an acre of calm water.
- An oil sheen can block sunlight, impair photosynthesis and prevent the replenishment of dissolved oxygen, which leads to fish kills.

Improper used oil storage: leaking, unlabeled drums on ground

Legal Requirements

- Used oil includes crankcase (engine) oil, brake fluid, automatic transmission fluid, power steering fluid, liquid and semi-solid gear, chain, and ball bearing lubricants, and hydraulic fluid. Used oils can be mixed and managed together.
- Materials that contain or are contaminated with used oil can also fall under the definition of used oil, such as used oil filters, oily rags and wipers, used absorbents, and oily wastewater.
- Used oil is a regulated waste in Connecticut [RCSA Section 22a-449(c)-119 and 40 CFR 279], and must be recycled (includes burning for energy recovery) [RCSA Section 22a-241b-2(1)(I)].
- Used oil is not considered hazardous waste unless it is mixed with a hazardous waste such as a chlorinated solvent. If used oil has been mixed with a hazardous waste, see Appendix A for more information on hazardous waste determinations and proper storage and disposal requirements.

- There are a few options for managing used oil. Two of the most common are:
  - collecting it, testing it and having it hauled away for recycling, or
  - collecting it, testing it and burning it in on-site space heaters.

  If the used oil tests positive for hazardous constituents, it must be managed as hazardous waste (see Appendix A).
- If the used oil does not test positive for hazardous waste, the options for management are:

  - COLLECT, TEST, HAUL

    1. Collect and store used oil in a secure collection tank or drum, separate from other wastes (proper storage described below).
    2. Test the used oil for total halogen content (see Appendix A). Maintain records on site.
    3. Contract with a permitted waste oil transporter to haul oil to a permitted recycling facility. Commercial haulers of such used oil must be permitted to transport used oil in Connecticut. Contact CT-DEP's Waste Bureau at (860) 424-4193 for a list of permitted commercial transporters.

  OR

  - COLLECT, TEST, BURN

    1. Collect and store used oil in a secure collection tank or drum, separate from other wastes (proper storage described below).
    2. Test the used oil for total halogen content (see Appendix A). Maintain records on site.
    3. Burn the used oil in space heaters for energy recovery (i.e., to heat your shop). Used oil heaters must be designed for that purpose and
       a. have a maximum design capacity of not more than 0.5 million BTUs per hour; and
       b. vent combustion gases outside the building; and
       c. burn only used oil that you generate or that you have collected from your do-it-yourself oil changers.

    If you have questions on burning used oil at your facility, contact CT-DEP's Waste Bureau at (860) 424-4193 and Air Bureau at (860) 424-3443.

What are the requirements for Used Oil Storage?

- Any storage tank or container for used oil must be on a base that is sufficiently impervious to prevent spills or leaks from reaching soil, groundwater, or surface waters [RCSA Sections 22a-449(c)-100(c)(31) and 22a-449(c)-119(b)(2)(A) and (B)]. A base is considered to be sufficiently impervious if it is:
  - Free of gaps, cracks, and areas of bare earth;
  - Capable of containing spills (i.e., used oil does not leak or penetrate through it);
  - Is not damaged or degraded by contact with used oil (e.g., uncoated asphalt, which will soften and degrade when exposed to used oil for long periods); and,
  - Free of floor drains, catch basins, or other similar structures that would allow used oil to escape to the environment.

- In addition to the having an impervious surface as described above, any storage tank or container that is located outdoors must be provided with secondary containment [RCSA Sections 22a-449(c)-100(c)(31) and 22a-449(c)-119(b)(2)(A), (C), and (D)].
- Examples of secondary containment for containers would include berms or walls, and specially-designed secondary containment pallets (available through industrial supply companies). Examples of secondary containment for tanks would include berms or walls, and double-walled tanks.
- Label the tank or container "Used Oil" [40 CFR 279.22(c)].

Double-walled above ground storage tank

- Use a licensed waste oil transporter to haul the oil to a treatment facility for processing [CGS Section 22a-454].
- Keep results of used oil testing for at least 3 years [RCSA Section 22a-449(c)-119(b)(1)(C)].
- Prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan if you store more than 1,320 gallons of used (or new) oil. Containers of less than 55 gallons are exempt. [40 CFR 112.1]. See the SPCC Plans Fact Sheet for more information.

How should Used Oil Absorbent Material and Filters be disposed?

- Materials that contain or are contaminated with used oil can also fall under the definition of used oil. The most common of these materials are used oil absorbent pads, socks, mats, rags and wipers, and loose absorbents (such as kitty litter, speedi-dry, and sawdust).

- All used oil absorbent material must be collected, tested for hazardous constituents and transported either as hazardous waste or used oil, depending on the test results. However, if the absorbents do not have free-draining oil and are not going to be burned for energy recovery, they are no longer subject to regulation as used oil. In this case, these soaked absorbents must have a hazardous waste determination and be disposed of as hazardous or CT-Regulated waste. See Appendix A for more information.

- Oil filters are regulated as used oil and cannot be thrown in the trash unless they have been punctured and hot drained for 24 hours.

Are there any more requirements?

- Air conditioning systems may also generate used oils that are contaminated with refrigerants (such as Freon™). This type of used oil must be recycled for its Freon™ content. See the Refrigerants (CFCs) fact sheet for more information.

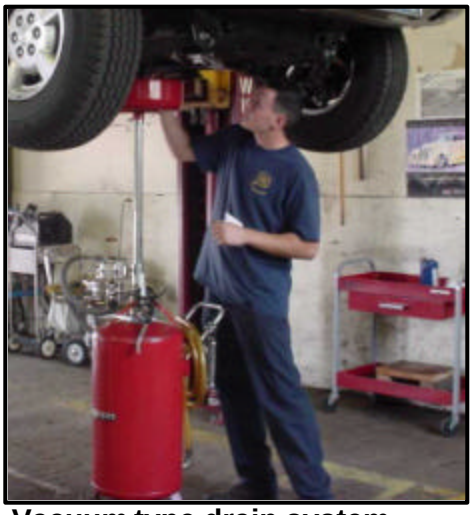
- Spills of used oil (or any other petroleum liquids, chemicals, or hazardous waste) must immediately be reported via CT-DEP's 24-hour spill reporting number: (860) 424-3338.

- If only used oil generated on-site is stored in the tank or container, no state permits are needed to install an above ground collection tank, but check with your municipality because local permits might be needed.

- CT-DEP discourages installation of new underground storage tanks (UST) for used oil. Since November 1985, it has been illegal to install any nonresidential UST or component that is not either fiberglass-reinforced plastic (i.e., noncorrosive) or has a manufacturer-applied anti-corrosive coating and cathodic protection. On or after October 1, 2003, any tank or component installed must be of double-walled construction with continuous interstitial monitoring. See the Petroleum Storage Tanks Fact Sheet for more information.

Best Management Practices

- ★ Do not mix used oil with anything else, such as chlorinated solvents, or expose oil to electrical contact cleaner or carburetor cleaner which can contaminate used oil while in an engine. Doing so will result in the need to perform a hazardous waste determination on the used oil mixture to establish whether or not the mixture must be managed as a hazardous waste.
- ★ Purchase a non-spill vacuum-type system for spill-proof oil changes.
- ★ Burn your used oil in a used oil fuel space heater. This is also a cost saving measure that eliminates the cost of waste oil removal.
- ★ Recycle used oil filters as scrap metal. Puncture and hot drain them for 24 hours first. The drained oil should be managed as used oil. If you generate large numbers of filters, consider purchasing a filter crusher.



Vacuum-type drain system

- ★ Use oil absorbent materials to clean up small drips and spills.
- ★ Locate any outdoor used oil storage tanks or containers in a fenced area, which will help prevent unauthorized access or vandalism, minimize possibility of fire or explosion and accidental release of oil to the environment.
- ★ Lock the tank or container's fill spout when not in use.

- ★ Provide a roof over outdoor tanks or containers to protect the secondary containment from filling up with rainwater, which may overflow - potentially contaminating the runoff.
- ★ Visually inspect the tank or container on a weekly basis for leaks or malfunctions. Maintain written inspection records.
- ★ Instruct all employees who handle used oil on the proper operation and management of the oil storage area. Assign one person the responsibility for monitoring oil storage.
- ★ If providing a collection tank or container for used oil from do-it-yourselfers, clearly label the tanks or containers to indicate the importance that ONLY used oil be placed in the tank. Remember that you'll be responsible to pay for disposal of used oil that is contaminated with hazardous waste.
- ★ Keep records of used oil collection.

Pollution Prevention Checklist

- ✓ Do you have oil absorbent materials readily available for use by your staff? YES NO N/A
- ✓ Do you drain oils using a non-spill vacuum-type system? YES NO N/A

Did You Know?
One gallon of used oil yields the same 2.5 quarts of lubricating oil as 42 gallons of virgin crude oil. Re-refining used oil only requires 1/3 of the energy needed to refine crude oil.

Waste Fuel, Tanks, & Filters

Potential Environmental Impacts

When removed from vehicles, fuel tanks, filters and waste fuel can pollute groundwater supplies and pose a serious fire safety risk if improperly stored. Gasoline has a low flash point (making it flammable) and contains toxic constituents such as benzene.

Legal Requirements

- Waste gasoline must be managed as a hazardous waste unless it is reused for the purpose it was intended for (as a fuel). [40 CFR 261.2(c)(2)(ii), 261.21, & 261.24] If you have no on-site use for your own waste gasoline, it can be picked up and recycled by a firm that can blend your unusable gasoline into a fuel. Contact the CT-DEP at (860) 424-4193 for a list of permitted companies.

- If mixed with hazardous waste (e.g., spent solvents), waste gasoline cannot be reused and must be managed as a hazardous waste. [40 CFR 261.3(a)(2)(iv)] See Appendix A for more information on hazardous waste storage and disposal requirements.

- Waste diesel fuel is typically not regulated as a hazardous waste, since it is less flammable and contains less of the toxic constituent benzene than gasoline does. [40 CFR 261.24] However, it can be hazardous, especially if mixed with gasoline or other hazardous wastes. [40 CFR 261.3(a)(2)(iv)] The only way to know for sure is to have it tested. As with gasoline, diesel fuel that can be reused on-site or sent for fuel blending is not subject to hazardous regulations.

- Fuels that are hazardous waste and that are going to be disposed of must be stored in closed containers or tanks that are managed in accordance with hazardous waste requirements. [40 CFR 262.34(a), (c), & (d); RCSA Sections 22a-449(c)-102(a)(2)] See Appendix A.

- Old vehicle fuel tanks that are empty must be recycled as scrap metal or can be disposed of in the trash if made of plastic [40 CFR 261.7]. The tanks are considered empty if they have been drained of all material that can be removed from the container by normal methods like pouring or pumping, AND no more than one inch (or 3% by weight of residue remains in the container). If an old vehicle fuel tank is not empty, then the excess fuel must be drained and managed in accordance to the requirements listed above. [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)].

- Underground fuel storage tanks are subject to special requirements. See the Petroleum Storage Tanks fact sheet for information on the proper management of these tanks.

- ♦ Fuel filters, even when properly drained, cannot be discarded in the trash since they may be hazardous due to benzene in the gasoline or toxic metals in the filter casing. [40 CFR 261.24] However, if metal fuel filters are drained of all free liquid and are recycled as scrap metal, they are exempt from the hazardous waste regulations. [40 CFR 261.6(a)(3)(ii)]

Best Management Practices

Removing gasoline with a tank drilling machine

- ★ Use an air-driven pump or a fuel tank drilling machine to drain the remaining fuel from a tank into a properly labeled storage container.
- ★ Re-use or recycle the fuel drained from tanks.
- ★ Metal tanks will be accepted by most scrap recyclers if the tanks have been crushed, cut up, or have holes in them.
- ★ Store used tanks on a covered impermeable surface away from ignition sources like heat or sparks.
- ★ Store gasoline or diesel fuel that is to be reused on-site in closed containers that are clearly labeled.
- ★ Do not mix waste gasoline or diesel fuel with other wastes, since this can complicate testing and disposal, and make it difficult or impossible to reuse or recycle it as a fuel.

Pollution Prevention Checklist

- ✓ Do you use an air-driven pump or a tank drilling machine to siphon fuel from tanks, helping to eliminate spills?

  YES NO N/A

- ✓ Do you re-use fuel drained from tanks for your vehicles or equipment?

  YES NO N/A

Did You Know? Sending your waste gasoline for recycling (fuel blending) rather than for disposal may reduce your monthly hazardous waste totals and can eliminate the regulations that you are required to comply with by reducing your hazardous waste generator status.

Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-018 Last Updated: August, 2004

Pit Stops Fact Sheet

Frequently Asked Questions

Q. I burn my used oil in a **waste oil burner** at my shop. I do not have enough used oil to burn throughout the winter 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 shop is illegal unless you obtain a permit.

Q. Sometimes I have **old gasoline** left over after repairing a vehicle's gas tank. I usually reuse it for my own vehicle or equipment but what if it's unusable by me?

A. Waste gasoline is considered a hazardous waste unless it is reused for the purpose it was intended for (as a fuel). If it is unusable for your vehicles or equipment, it can be picked up and recycled by a firm that can blend your unusable gasoline into a fuel. Contact the CT-DEP at (860) 424-4193 for a list of permitted companies.

Q. I was told that **fluorescent lamps** contain mercury. Does this mean that I can't throw them in the trash?

A. Yes. Fluorescent lights and other mercury-containing lamps (sodium vapor, metal halide and high intensity discharge lamps, including the blue-tinted HID headlamps) are considered Universal Wastes and are subject to special requirements. However, although they can't be thrown in the trash, these lamps can be recycled. (See the EPP fact sheet for a listing of fluorescent lamp recyclers.) For more information on Universal Waste requirements, call the CT-DEP at (860) 424-3023 and ask for a copy of the Universal Waste Rule fact sheet or it can be downloaded from www.dep.state.ct.us/wst/mercury/uwrule.htm.

Q. Can I throw **oil filters** that I have hot drained for at least 24 hours into the trash?

A. Yes. But the most environmentally preferred method is to recycle these filters. Check out purchasing a crusher that collects the excess oil left in the filter. You will be able to save money by fitting more filters in a drum for pick-up.

Q. I have a bunch of **aerosol cans** with products that I can't use anymore. What should I do with them?

A. Aerosol cans that have not been emptied may be a hazardous waste due to the leftover propellant or the product inside the can. A hazardous waste determination must be made before disposal. Try to return defective cans to the manufacturer and look into replacing the use of aerosols with refillable spray canisters.

Q. Can I use a **MSDS** (Material Data Safety Sheet) to make a hazardous waste determination?

A. MSDSs can be helpful in beginning a hazardous waste determination. They should not be relied on solely since the manufacturer is not required to list constituents that are present in amounts of less than 1 percent (10,000 ppm). For example, if your waste contains as little as 0.7 ppm of tetrachloroethylene (perc), it is considered a hazardous waste.

Q. Does the asphalt under my outdoor used oil tank meet the definition of a "**sufficiently impervious**" surface?

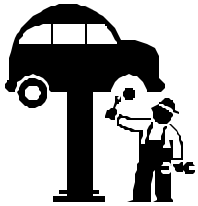
A. No. If used oil did leak out of the tank, it could penetrate the asphalt and reach the underlying soil below. Epoxy-coated concrete or a steel containment pan would meet the sufficiently impervious requirement.

Q. Is it a good idea to seal my **floor drains**?

A. No, sealing floor drains is not recommended. Floor drains are designed to capture water, cleaners, oil, dirt or other materials from your shop that otherwise may end up outside the building as an illegal discharge. However, your floor drains need to be hooked up to an oil/water separator and discharged to the sanitary sewer or to a holding tank (see the Shop Wastewater Fact Sheet for a summary of the regulatory requirements).

Q. This guy has offered to take my **batteries, scrap metal** and other items from my repair shop at no charge. Should I accept his offer?

A. This person must have a permit from the CT DEP for hauling certain items like batteries. Facilities that take in batteries or solid wastes must also be permitted. If this person is mismanages the items and ends up contaminating a site, you could held responsible for clean-up costs. It is a better practice to have a reputable company pick up your items. Contact the CT-DEP at (860) 424-4193 for a list of permitted companies.



Did You Know?

There are approximately 4,500 licensed vehicle service facilities in the State of Connecticut.

Pit Stops Fact Sheet

Purchasing Environmentally Preferable Products (EPPs)

What are Environmentally Preferable Products (EPPs)?

EPPs are defined as items that have a reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. EPPs may include, products that contain recycled content, minimize waste, conserve energy or water, protect natural resources, and reduce the use and release of toxic chemicals. EPPs also offer human health and economic benefits such as reduced worker illness, improvements in public health and decreased costs associated with waste management and regulatory compliance.

Why should my business buy EPPs?

An increasing number of businesses, government agencies and households are purchasing environmentally preferable products and services to protect their health and provide a safer, less toxic workplace, potentially reduce the amount of regulation they are subjected to, reduce liabilities, and protect the environment. Customers may also consider it a "plus" when choosing where they spend their money.

What types of EPP products or services are available?

Due to consumer demand, there are a growing number of products and services that have environmental benefits without sacrificing high performance or cost competitiveness. A list of suppliers is included with this fact sheet. Please note that the list in not comprehensive and does not constitute an endorsement by the State of Connecticut. You can also ask your suppliers or check the Internet for additional products.

Best Management Practices

- ★ Purchase the largest practical container, but don't purchase more than you need. Purchase frequently used products in bulk (e.g., oil, antifreeze) to reduce packaging waste.
- ★ Purchase the least toxic product available. Check the Material Safety Data Sheets (MSDS) for products you purchase. If the product is toxic, ask your supplier for alternatives.
- ★ If you do have excess or unneeded materials, see if your supplier can take them back.
- ★ Include the cost of disposal when you make purchasing decisions. What looks like the cheaper option may cost more because of disposal or other management costs.

- ★ Store materials in a way that keeps them from being damaged.
- ★ Use the oldest items first (first-in, first-out).
- ★ Purchase products made with recycled content to close the recycling loop (i.e., create a

market for the products you recycle). The quality of these products is just as good as those made with virgin materials and prices are competitive.

Pollution Prevention Checklist

✓ Do you look for and purchase alternatives to less toxic products? YES NO N/A

Did You Know?

The United States consumes approximately 25% of the world's resources with only 5% of the world's population?

Environmentally Preferable Products and Services

Disclaimer

The following is a list of suppliers the CTDEP and/or the Department of Administrative Services (DAS) are aware of that supply environmentally preferable products or services. It is not a comprehensive listing. Nor does a listing in this directory represent an endorsement by the State of Connecticut. Listings are subject to change, so please contact the company for current information.

Company	Phone & Fax	Web Site
Advanced Liquid Recycling Aqueous parts washers, spray cabinets, absorbents, bulk windshield washer fluid	Phone: 203-238-6771 Fax: 203-630-4415	
Carey Wiping Materials Corp. Cloth and paper wipers, environmental spill products	Phone: 860-224-2459 Fax: 860-229-7870	www.careywiping.com
Chem Station New England Water-based detergents and cleaners, less hazardous parts washing systems	Phone: 860-291-2863 Fax: 860-291-2864	www.chemstationne.com
Clayton Associates, Inc. Automotive brake cleaning equipment and HEPA-Filter vacuum sanding equipment	Phone: 1-800-248-8650 Fax: 732-364-6084	www.jclayton.com
Connecticut Cleaning & Heating Equipment Aqueous automatic parts washers and waste oil furnaces and boilers	Phone: 1-800-727-3295 Fax: 860-658-5765	
Dawg, Inc. Recycled absorbent sacks, pillowcases, pads	Phone:1-800-YEL-DAWG (935-3294) Fax: 1-800-LIL-PAWS (545-7297)	www.dawginc.com
Hubbard Hall Service Less hazardous parts washing systems	Phone: 203-756-5521 Fax: 203-756-9017	www.hubbardhall.com
New Pig Absorbent mats, socks, pillows, wipers and rags	Phone: 800-HOT-HOGS (468-4647)	www.newpig.com
Northeast Industrial Flooring Chemical resistant coatings for floors, concrete repair and sealing	Phone: 860-292-5920 Fax: 860-292-5922	
Northeast Lamp Recycling Fluorescent lamp recycling *Call DEP at 860/424-3297 for other resources*	Phone: 888-657-5267	www.nlrlamp.com
Odor Gone of Connecticut Non-chemical odor control additive for use with washing systems and gray water tanks	Phone: 860-564-8968	www.odorgone.com

Company	Phone & Fax	Web Site
Pastanch Recycled content traffic control devices and traffic safety cones	Phone: 203-720-9478 Fax: 203-720-9489	
Safety Kleen Less hazardous parts washing systems, antifreeze recycling service vendor, recycled parts washing solvents, re-refined oil	Phone: 860-953-4222 Fax: 860-953-8608	www.safetykleen.com
Seda Environmental Equipment Vehicle fluid draining systems	Phone: 727-545-8879	
Speedway Distributors Antifreeze recycling systems and vehicle fluid draining equipment	Phone: 800-356-9966 Fax: 401-438-8534	
System One Recycling cleaning systems	Toll Free: 1-800-711-1414 Phone: 305-593-8015 Fax: 305-593-8016	www.systemonetechnologies.com
United Laboratories Less hazardous parts washing systems	Phone: 800-323-2594 Fax: 630-443-2087	www.beearthsmart.com
ZEP Manufacturing Aqueous spray cabinets and other cleaning products	Phone: 877-428-9937	www.zepmfg.com
Zymol All-natural car care products-wax, wash, glaze	Phone: 203-484-1622	

The California Department of Toxic Substances Control (DTSC) also has ***Vehicle Service and Repair Equipment and Supplies Directory*** database on line at http://www.dtsc.ca.gov/PollutionPrevention/VSR/index.html. You can search for environmentally preferable products alphabetically or by category, keyword, or state.

Appendix A

Hazardous Waste Management in Connecticut

Hazardous wastes are a group of wastes that are subject to special handling requirements because their mismanagement may lead to serious hazards to human health and the environment. The mismanagement of these wastes can also bring about loss of property value or legal action against persons that mismanage them. **Many types of wastes can be classified as hazardous wastes, including some materials commonly generated at vehicle service facilities.** This section takes you through a step-by-step process to make sure that you are in compliance with hazardous waste requirements. Proper management of hazardous waste depends on a number of factors: determining which wastes are hazardous, determining your hazardous waste generator status, and then applying the correct requirements based on your hazardous waste generator status.

If you already know that your waste is hazardous and know your generator status, then turn to Step Three for information on how to handle your hazardous waste.

Step One:
Determine Which of Your Wastes are Hazardous

Anyone who generates a waste is required by law to determine whether or not that waste is hazardous [40 CFR 262.11]. Some general knowledge about the basic characteristics of the wastes may be helpful in making this determination, but some laboratory testing is usually required. For more guidance on hazardous waste testing, see the list of CT-DEP documents at the end of this section, or call CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 for assistance.

There are two ways a waste may be considered a hazardous waste: (1) if it is Characteristically Hazardous, or (2) if it is a Listed Hazardous Waste.

Characteristically hazardous wastes are wastes that exhibit any one of the four characteristics listed in the following table. An abbreviated definition is given for each one. They are fully defined in the federal hazardous waste regulations [40 CFR 261.21 through 261.24]. Copies of these regulations may be obtained by contacting CT-DEP or through U.S. EPA's web site at www.epa.gov/region5/defs/html/rcra.htm. Characteristically hazardous wastes are identified by the letter "D" that begins their 4-digit EPA waste code.

Listed hazardous wastes (see the following table) are wastes that are specifically identified in one of four lists developed by U.S. EPA in the federal hazardous waste regulations [40 CFR 261.31 through 261.33]. Each hazardous waste listing includes a description of a specific type of waste that EPA considers hazardous enough to warrant regulation. Hazardous waste listings describe wastes that are generated by certain industries, come from common industrial processes, or include specific chemical compounds as their main active ingredient. Several hundred specific solvents, metal finishing waste streams and sludges, pesticides, various organic and inorganic chemicals and discarded commercial chemical products are included in these lists.

Characteristically Hazardous Wastes ("D" Wastes)

Characteristic	Definition	Testing	Vehicle Service Facility examples
Ignitability	liquid wastes with a flash point lower than 140°F, ignitable solids, and materials that are designated by the U.S. DOT as oxidizers.	Laboratory certified by the CT Dept. of Public Health	◆ paint and solvent wastes ◆ waste gasoline ◆ old signal flares
Corrosivity	liquid wastes with a pH less than or equal to 2.0, or greater than or equal to 12.5	The most accurate way to determine pH is with a laboratory test.	◆ lead-acid batteries ◆ waste muriatic acid ◆ caustic paint strippers ◆ old drain cleaners
Reactivity	materials that are: normally unstable; react violently, explode, or emit toxic fumes when mixed with water; or, are capable of exploding at room temperature and pressure or when heated under confinement.	Laboratory certified by the CT Dept. of Public Health	◆ non-empty aerosol cans ◆ some hardening agents for body fillers and paints ◆ un-deployed air bag canisters (contain sodium azide)
Toxicity	materials containing greater than the regulated concentration of any of 40 contaminants listed in the federal hazardous waste regulations [40 CFR 261.24]	Determined in a certified lab by a test called the Toxicity Characteristic Leaching Procedure (TCLP)	◆ lead-based paint chips ◆ spent methyl ethyl ketone solvent ◆ waste gasoline (contains benzene) ◆ mercury switches ◆ old containers of pesticides

The four groups of listed hazardous wastes are easily identified by the letter that begins their 4-digit EPA waste code (i.e., "F," "K," "U," or "P"). The four groups are classified as follows:

Listed Hazardous Wastes

Listed Waste	Definition	Vehicle Service Facilities examples
"F" Wastes	wastes from certain common, non-specific industrial activities	◆ spent chlorinated solvents (e.g., methylene chloride; 1,1,1-trichloroethane; perchloroethylene) ◆ waste paint solvents [e.g., acetone, methyl alcohol, n-butyl alcohol, xylene, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethyl acetate]
"K" Wastes	Wastes from certain specific industrial processes	Rarely, if ever, generated by vehicle service facilities
"U" and "P" Wastes	Discarded commercial chemical products, off-spec products, container residues, and spill residues of such products	Occasionally generated by vehicle service facilities ◆ certain old pesticides, solvents, and other chemical products ◆ paints or hardeners with expired shelf life

Non-RCRA-Hazardous "Connecticut-Regulated" Wastes.

If a waste is neither characteristically hazardous nor listed, then it is not subject to Connecticut's hazardous waste requirements. However, under separate state law [CGS Section 22a-454], certain wastes may not be disposed of at regular solid waste (i.e., trash) disposal facilities, but must instead be sent to specially-permitted facilities that are equipped to handle industrial wastes. In general, the kinds of wastes that are subject to these special requirements include waste oils, petroleum or chemical liquids, and chemical solids (generally referred to collectively as "Connecticut-Regulated Wastes").

Examples of CT Regulated Waste that might be generated at a vehicle service facility

- Non-hazardous paint-related wastes (e.g., sanding dust, paints, solvents, cleanup residues, paint booth filters, sandblasting grit, and other painting debris)
- Non-hazardous absorbents (e.g., rags, wipers, mats, socks, and loose material such as speedi-dry) contaminated with oil, grease, cleaners, paints, solvents, etc.
- Non-hazardous antifreeze
- Waste diesel fuel
- Used oil

These wastes cannot be placed in an on-site trash dumpster, but must instead be segregated and picked up by a hauler that is permitted to transport Connecticut-Regulated Wastes. However, there is an exemption from transporter permit requirements for "waste chemical solids" (e.g., dried non-hazardous paint or paint chips). Such wastes do not have to be hauled by a permitted transporter, but they must still be sent to a permitted storage treatment or disposal facility. If sent to a facility in Connecticut for treatment or disposal, this facility must be permitted to take Connecticut-Regulated Wastes. There are no requirements for generators of these materials, other than that they ensure that they are properly disposed. However, as a best management practice, store these materials in manner similar to that for hazardous waste (i.e., in secure, closed containers, in a storage area with an impervious base and secondary containment, etc.). When the material is shipped, the law does not require that the generator prepare a waste manifest. However, as a practical matter, generators will often find that their haulers will ask for one (either for their record keeping purposes, or because it is required under the receiving facility's operating permit).

For more information on Connecticut Regulated Wastes, contact CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 and ask for the fact sheet entitled "Non-RCRA Hazardous Wastes (Connecticut-Regulated Wastes)."

Testing Used Oil

Used oil is subject to some specific requirements. The Used Oil Fact Sheet outlines the steps for proper management. Testing requirements are outlined below.

When testing used oil for hazardous constituents, four steps must be taken in this order:

1) determine if it is mixed with any listed hazardous waste (if it is, it is automatically a hazardous waste);
2) determine if it has been mixed with any characteristic hazardous waste (if it has, it must be tested to determine if it is still characteristically hazardous);
3) test for total halogens (if the oil contains total halogens of greater than 1,000 parts per million (ppm), it must be managed as hazardous waste);
4) if the oil tested at over 1,000 ppm, you can rebut the presumption of mixing by having the oil tested for the presence of chlorinated solvents. If no listed hazardous waste solvent is present over 100 ppm, the oil does not have to be managed as hazardous waste.

Total halogen testing can be conducted in a laboratory, or facility personnel can test for total halogens using inexpensive, EPA-approved total halogen field-testing kits. These total halogen test kits are available from numerous sources, including industrial supply or health and safety supply companies. The following list is not an endorsement of the companies or their product, but offered for your information: CHLOR-D-TECT 1000 or CHLOR-D-TECT Q4000 (Dexsil Corp., Hamden, CT, www.dexsil.com) or, Quantichlor (CHEMectrics, Inc, Caverton. VA., www.chemetrics.com)

FREQUENTLY ASKED QUESTIONS
ABOUT HAZARDOUS WASTE DETERMINATIONS

Q: I'm pretty sure that my waste is hazardous. Do I still have to test it?

A: There are two "tools" that may be used to determine if a waste is hazardous. The first of these is analytical testing. The second is to use information about the source, nature and contaminants of the waste (i.e., so-called "knowledge of process" information). Common sources of knowledge of process information include Material Safety Data Sheets (MSDSs), product specification sheets, or analytical results from the testing of an identical waste stream generated at another site. Although knowledge of process information can be very useful (especially in identifying hazardous constituents that are known to be present), it typically is not adequate to fully and properly characterize a waste. In particular, knowledge of process cannot account for factors such as trace contaminants that may not be listed on a MSDS, contaminants introduced during use, and cross-contamination from other wastes. As a result, some sampling is typically required to properly characterize a waste.

Q: Where can I get my waste tested?

A: The Connecticut Department of Public Health licenses analytical laboratories in Connecticut, and several dozen of these labs are capable of doing hazardous waste testing. To get a list of these labs, call CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3274. Many of these labs are also listed in the Yellow Pages under "Laboratories – Analytical" or on the Connecticut Department of Public Health's website at www.dph.state.ct.us/BRS/Environmental_Lab/environmental_laboratorytext.htm.

Q: How often do I have to test my wastes?

A: Connecticut's hazardous waste rules require that generators test their waste annually, or whenever there is a raw material or process change that could affect the waste. However, if a generator can document that a waste has not changed over time (such as by having several previous years' analyses showing consistent testing results), this may constitute a valid basis on which to make a "knowledge of process" claim (see first question above).

Q: What if my waste is hazardous for more than one thing?

A: Some wastes can be hazardous for more than one characteristic, or can be both listed and characteristically hazardous. For example, waste gasoline might be hazardous for the ignitability characteristic AND exhibit the toxicity characteristic for benzene. Hazardous waste rules require generators to determine *all* the applicable waste codes that apply to a waste, and list them on the manifest when the waste is shipped off-site.

Q: If my hauler tests the waste, do I have to test it, too?

A: Oftentimes transporters and/or receiving facilities will test waste that they accept (either to confirm information provided by the generator, or because their operating permit requires them to perform certain testing for quality control purposes). If the transporter or receiving facility is willing to provide this information, the generator may use it in complying with hazardous waste determination requirements. However, it must be stressed that this kind of test data may not be adequate to fully characterize a waste, and additional testing or "knowledge of process" information may be needed to round out the waste determination.

Step Two:
Determine Your Hazardous Waste Generator Status

If, at the end of Step One, you have determined that you do not generate any hazardous wastes, then congratulations! You're done! If none of the wastes that you generate are hazardous (or if you can eliminate any hazardous wastes you do generate), then you do not have to comply with any hazardous waste requirements. You just need to keep records of your test results documenting that your wastes are non-hazardous.

However, if any of your wastes are hazardous, you must take some additional steps to determine the requirements that apply to your handling of these wastes. Generators of hazardous waste are subject to different requirements, depending on the amount of waste they generate and store on-site. There are three types of hazardous waste generators:

1. Conditionally Exempt Small Quantity Generators (CESQG): facilities generating less than 220 pounds (about 26 gallons) per month and accumulating no more than 2,200 pounds of hazardous waste on-site at any one time and that generate less than 2.2 pounds per month of acutely hazardous waste.*
2. Small Quantity Generators (SQG): facilities generating between 220 and 2,200 pounds (about 26 to 260 gallons) per month and accumulating no more than 2,200 pounds on-site of hazardous waste at any one time and that generate less than 2.2 pounds per month of acutely hazardous waste.*
3. Large Quantity Generators (LQG): facilities generating more than 2,200 pounds per month or accumulating more than 2,200 pounds on-site at any one time of hazardous waste, or that generate more than 2.2 pounds per month of acutely hazardous waste.*

*Acutely hazardous wastes are a subset of hazardous wastes that are particularly hazardous, and are therefore regulated in much smaller amounts than regular hazardous wastes. Typically, the wastes generated by vehicle service facilities will not fall into this category, although certain wastes may (for example, certain pesticides which are "P" listed wastes).

For more detailed information, call the CT-DEP's Waste Engineering & Enforcement Division at (860) 424-3023 and ask for the fact sheet, Hazardous Waste Generator Category, which will help you determine what set of requirements you are subject to.

Step Three:
Properly Store and Dispose of Your Hazardous Waste

Once you have determined your generator status, the next step is to determine the requirements that apply, and ensure that your facility is in compliance with them. Table 1 at the end of this section provides an overview of the various requirements that apply based on generator status. Details on these requirements are provided on the following pages.

Conditionally Exempt Small Quantity Generators (CESQGs)

CESQGs have the fewest requirements of the three hazardous waste generators. The requirements and best management practices (BMPs) for CESQGs are listed below. If you would like more information on these requirements and BMPs, contact the CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 and ask for the Small Quantity Generator Guidance booklet. Several other helpful documents which are available are also listed at the end of this section.

Proper waste storage – closed, labeled drums stored inside with secondary containment

In general, if you are a CESQG, then you must do the following:
[RCSA Section 22a-449(c)-101(b), 40 CFR 261.5]

- Ensure that your waste is disposed of at a permitted hazardous waste treatment or disposal facility, or at a household hazardous waste facility (or one-day collection event that is permitted to take CESQG waste).
- If you hire a waste hauler to take away your waste, be sure that hauler has a valid EPA Identification number and transporter's permit to haul waste in Connecticut.
- Perform a hazardous waste determination on all the wastes you generate, and keep records of all test results and other information used to make these determinations for at least three years from the date that the waste was last sent off-site for disposal.
- Comply with Universal Waste requirements for any Universal Wastes that you generate. Universal Wastes are wastes that are subject to a special, reduced set of requirements in 40 CFR 273, and include batteries, recalled pesticides, mercury thermostats, used electronics, fluorescent lights and other mercury-containing lamps (sodium vapor, metal halide and high intensity discharge lamps, including the blue-tinted HID headlamps). For information on Universal Waste requirements, visit www.dep.state.ct.us/wst/mercury/uwrule.htm or call the CT-DEP at (860) 424-3023 and ask for the Universal Waste Rule fact sheet.
- Remember: if at any time your waste generation or storage amounts increase beyond CESQG levels, you must comply with the requirements for the higher generator category.

Best Management Practices (BMPs) for CESQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see the table at the end of this appendix for "Hazardous Waste Minimization Tips"). If possible, completely eliminate the generation of hazardous waste, and avoid having to comply with hazardous waste requirements altogether.

  If you store waste in containers, keep them in an area that has an impervious base and secondary containment to capture any leaks or spills. Use containers that are compatible with the waste you are putting in them, and store waste containers away from other wastes or raw materials with which they may incompatible. In addition, ensure that the containers

are kept closed and in good condition, and immediately replace or over-pack any damaged or leaking containers. Do not store hazardous waste within 50 feet of the facility property line, or immediately adjacent to rivers, streams, or shoreline areas.

- If you store waste in tanks, provide the tank with an impervious base and secondary containment to capture any leaks or spills (or, as an alternative, use double-walled tanks). Maintain the tanks to ensure they remain in good condition. Ensure that the fill opening for the tank is properly equipped so as to prevent spillage down the outside of the tank, and keep this opening closed at all times except when filling the tank. Be sure that the waste(s) that you place in the tank are compatible with the tank, and do not store wastes that are incompatible with one another in the same tank.
- Inspect all waste storage areas on a regular basis (e.g., weekly), looking for leaks, spills, damaged containers, and other hazardous conditions. Correct any problems as quickly as possible. Document your inspections in a written inspection log.
- If you discontinue the use of a tank or container storage area, remove all waste, thoroughly clean and decontaminate the area, and perform post-decontamination testing to confirm that no waste residues remain.
- Develop written emergency procedures to respond to leaks, spills, fires, storms, floods, etc.
- Provide training for all personnel involved in waste management. Include, at a minimum, training in proper waste handling and emergency response procedures. Retain documentation of all training that is provided.

Small Quantity Generators (SQGs)

SQGs have more requirements than CESQGs, but fewer than LQGs. The requirements and best management practices for SQGs are listed below. If you would like more information on these requirements and BMPs, contact the CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 and ask for the Small Quantity Generator Guidance booklet. Several other helpful documents which are available are also listed at the end of this section.

In general, if you are a SQG, then you must do the following:
[RCSA Sections 22a-449(c)-102(b) and -102(c), 40 CFR 262.34(d)]

- If you have not done so already, apply for and obtain an EPA Identification Number. To do this, you will need to contact CT-DEP's Waste Engineering & Enforcement Division and request EPA Form 8700-12, Notification of Hazardous Waste Activity. Once you have filled out this form and sent it to CT-DEP, you will be provided with the EPA ID Number.
- Be sure your waste hauler has a valid EPA Identification number and transporter's permit to haul waste in Connecticut.
- Ensure that your waste is disposed of at a permitted hazardous waste treatment or disposal facility.
- Perform a hazardous waste determination on all the wastes you generate, and keep records of all test results and other information used to make these determinations for at least three years from the date that the waste was last sent off-site for disposal.
- Prepare a hazardous waste manifest for each shipment of waste off-site, and retain a copy of the manifest for each shipment. Ensure that the required Land Disposal Restriction ("LDR") Notices accompany each manifested shipment, and retain copies of these notices on-site.

- Ensure that you do not store waste for more than 180 days.
- If you store waste in containers, mark each container with the words "hazardous waste," a description of the contents, such as the chemical name, and the date of initial accumulation. Store containers in an area which has an impervious base, and secondary containment that is capable of containing the volume of the largest container stored in the area, or ten percent of the total volume of waste stored in the area (whichever is greater). Use only containers that are compatible with the waste you are putting in them, and store waste containers away from other wastes or raw materials with which they may be incompatible. In addition, ensure that containers are kept closed and in good condition, and immediately replace or over-pack any damaged or leaking containers. And, when shipping containers of hazardous waste off-site, ensure that they are properly packaged, marked and labeled in accordance with U.S. DOT shipping requirements for hazardous materials.
- If you store waste in tanks, mark each tank with the words "hazardous waste," and a description of the contents, such as the chemical name. Ensure that the waste is compatible with the tank (e.g., don't put corrosive waste in an unlined steel tank) and do not store wastes that are incompatible with one another in the same tank. Do not use uncovered tanks. Ensure that ignitable and reactive wastes that are stored in tanks are separated from sources of ignition or reaction (e.g., open flames, smoking, welding, sparks, etc.).
- If you discontinue the use of a tank or container storage area, remove all waste, thoroughly clean and decontaminate the area, and perform post-decontamination testing to confirm that no waste residues remain.
- Develop a written inspection schedule which lists the areas of the facility to be inspected and describes procedures to be followed during inspections. Perform inspections of all hazardous waste storage areas (weekly for containers, daily for tanks), looking for leaks, spills, damaged containers, and other hazardous conditions. Correct any problems as quickly as possible. Document your inspections (and any corrective actions taken to address noted problems) in a written inspection log, and keep these records for at least three years.
- Designate an emergency coordinator and post the name and telephone number of this coordinator next to the on-site telephone, along with the locations of fire extinguishers and spill control material, the fire alarm (if you have one), and the telephone number of the local fire department (i.e., 911). Make arrangements with local emergency response authorities to coordinate emergency services in the event of an emergency.

Cabinet with spill response materials

- Ensure that whenever waste is being handled, personnel have access to an internal alarm or emergency communication device.
- In the event of an emergency (e.g. fire, explosion, waste spill, severe storm, flood, etc.), take appropriate steps to ensure that hazardous waste is not released into the environment. Notify local emergency response authorities (i.e., local fire and/or police departments). If a spill has occurred, report it to the CT-DEP's Oil and Chemical Spill Response Division via its 24-hour spill reporting hotline at (860) 424-3338. If there is a release of hazardous waste that could threaten human health outside your facility, you must also contact the National Response Center at (800) 424-8802. Contain and properly dispose of any spilled or leaked waste (or hire a permitted spill cleanup contractor to perform this work).

- Train all personnel involved in hazardous waste management in proper waste handling and emergency procedures relevant to their specific job duties.
- Comply with Universal Waste requirements for any Universal Wastes that you generate. Universal Wastes are wastes that are subject to a special, reduced set of requirements in 40 CFR 273, and include batteries, recalled pesticides, mercury thermostats, used electronics, fluorescent lights and other mercury-containing lamps (sodium vapor, metal halide and high intensity discharge lamps, including the blue-tinted HID headlamps). For more information on Universal Waste requirements, call the CT-DEP at (860) 424-3023 and ask for the Universal Waste Rule fact sheet or visit the DEP website at www.dep.state.ct.us/wst/mercury/uwrule.htm.
- Remember: if at any time your waste generation or storage amounts increase beyond SQG levels, you must comply with Large Quantity Generator Requirements.

Best Management Practices for SQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see the following table "Hazardous Waste Minimization Tips"). For some SQGs, eliminating even a small amount of waste generation will be enough to allow them to reduce to CESQG status.
- Do not store hazardous waste within 50 feet of the facility property line, or immediately adjacent to rivers, streams, or shoreline areas.
- If you store waste in tanks, provide the tank with an impervious base and secondary containment to capture any leaks or spills (or, as an alternative, use double-walled tanks). Ensure that the fill opening for the tank is properly equipped so as to prevent spillage down the outside of the tank.
- Develop written emergency procedures to respond to leaks, spills, fires, storms, floods, etc.
- Document the hazardous waste training that you provide to your employees.

Large Quantity Generators (LQGs)

In general, LQGs must comply with all the requirements for SQGs as well as additional requirements [RCSA Section 22a-449(c)-102(b), 40 CFR 262.34(a) and (b)].

See the table that follows for an overview of the three generator categories. If you would like more information on any of these requirements or BMPs, contact the CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 and ask for the guidance documents. Several other helpful documents that are available are also listed at the end of this section along with a table with waste minimization tips so you can reduce (or eliminate) the amount of hazardous waste you generate.

Did You Know?

You are legally responsible for your hazardous waste from the point of generation to its final disposal.

Table 1: Overview of Hazardous Waste Requirements Based on Generator Category			
	Large Quantity Generator (LQG)	**Small Quantity Generator (SQG)**	**Conditionally Exempt SQGs (CESQG)**
Hazardous Waste Generation Rate (per calendar month)	More than 2200 lbs of hazardous waste OR more than 2.2 lbs of acute hazardous waste.	More than 220 lbs but less than 2200 lbs of hazardous waste AND less than 2.2 lbs of acute hazardous waste.	Less than 220 lbs of hazardous waste AND Less than 2.2 lbs of acute hazardous waste.
Max amount of HazardousWaste on-site	None	2200 lbs.	2200 lbs.
Max. storage time	90 days	180 days	No limit
Waste Determination Required?	Yes	Yes	Yes
Generator EPA ID Number Required?	Yes	Yes	No
Manifest required for shipment off-site?	Yes	Yes	No
Permitted transporter required?	Yes	Yes	Yes
Allowed disposal facilities	Permitted hazardous waste treatment, storage, or disposal facilities.	Permitted hazardous waste treatment, storage, or disposal facilities.	Permitted hazardous waste treatment, or disposal facilities; authorized household hazardous waste collections.
Storage requirements	See LQG guidance for details.	See SQG guidance for details.	None. However, see BMPs for CESQGs.
Emergency Procedures/Plans	Full written contingency plan. See text for details.	Emergency coordinator and post information near on-site telephone. See SQG guidance for details.	None. However, see BMPs for CESQGs.
Inspection requirements	Written inspection schedule and log. See LQG guidance for details.	Written inspection schedule and log. See SQG guidance for details.	None. However, see BMPs for CESQGs.
Personnel training requirements	Written training plan and formal classroom training. See LQG guidance for details.	Employees must be familiar with waste handling & emergency procedures. See SQG guidance for details.	None. However, see BMPs for CESQGs.
Record keeping requirements	Must retain manifests, biennial reports, waste determinations (w/ test results), inspection logs, and records of incidents requiring implementation of the contingency plan.	Must retain manifests, waste determinations (w/ test results), and inspection logs.	Records of waste determinations (with test results)
Biennial report	Yes – full report	No longer required but past records should be kept for 3 years	No

HAZARDOUS WASTE MINIMIZATION TIPS

Waste minimization means finding ways to reduce or eliminate the generation of hazardous waste. Some general ways to do this include:

- Eliminate activities that generate hazardous waste (e.g., by discontinuing certain services, or sub-contracting them out to off-site companies).
- Alter work practices and/or equipment so that you use less virgin material. Obviously, using less virgin material means generating less waste.
- Recycle or reuse materials on-site.
- Switch from hazardous products to non-hazardous ones.

Some specific waste minimization options for vehicle service facilities include:

- **Used Oil**: Keep hazardous waste and other contaminants out of your used oil so that it does not have to be handled as a hazardous waste.
- **Waste Fuel (e.g., gasoline)**: Send the waste fuel that you generate for recycling (fuel blending) rather than for disposal or incineration. Waste fuels that are recycled in this way are exempt from regulation as hazardous waste.
- **Parts Washing**: Switch from a hazardous parts washing solvent (low-flash mineral spirits, chlorinated solvents) to a non-hazardous one (high-flash mineral spirits or water-based cleaners).
- **Paints/Solvents**: Use as little paint and as little solvent as possible to get the job done. Look into non-hazardous solvents for cleaning up, etc. Reuse solvents by settling out the paint solids, or recycle them in an on-site solvent recycling still.
- **Antifreeze (Engine Coolant)**: Reuse or recycle antifreeze on-site.
- **Rags/Wipers**: Use only non-hazardous cleaning agents/solvents for cleanup. Send your rags to an industrial laundry instead of disposing of them.
- **Batteries (Lead-Acid and Household Types)**: Send batteries for recycling rather than disposing of them. Manage batteries under reduced "Universal Waste Rule" requirements [40 CFR 273].
- **Old Virgin Products**: Expired or damaged products can be costly to dispose of. See if the manufacturer will take the material back, or if there is someone else who can legitimately use it. To avoid this, order products in appropriate amounts and try not to stock items that are hazardous. Review the Material Safety Data Sheets (MSDSs) from your supplier prior to purchase.
- **Filters**: Puncture and hot drain for at least 24 hours or crush filter. Send for scrap metal recycling.

TITLE	GENERAL TOPIC
Hazardous Waste Management Regulations and Fact Sheets	CT's rules for the management of hazardous waste, which incorporate the federal rules with certain additions and modifications and fact sheets summarizing the recent changes. www.dep.state.ct.us/wst/hw/hwregs.htm
Conditionally Exempt Small Quantity Generator Handbook	Requirements for generators of less than 100 kg/month of hazardous waste.
Small Quantity Generator Guidance	Requirements for generators of between 100 kg/month and 1000 kg/month of hazardous waste.
Hazardous Waste Generator Category	Helps generators determine what set of requirements they are subject to.
Hazardous Waste Determinations/ Knowledge of Process	Guidance on how to determine if a waste is hazardous. www.dep.state.ct.us/wst/hazardous/hwd.htm
Hazardous Waste Personnel Training	Describes personnel training requirements for large quantity generators.
Hazardous Waste Inspections	Describes inspection requirements for large quantity generators.
Hazardous Waste Contingency Plan	Describes emergency planning and response requirements for large quantity generators.
Hazardous Waste Container Management	Describes container management requirements for large quantity generators.
Permitted Waste Transporter's List	List of companies who are permitted to haul hazardous waste in or through CT.
List of Commercial Hazardous Waste and Connecticut Regulated Waste Facilities in Connecticut	List of facilities in CT that are permitted to store, treat, or dispose of commercial and industrial wastes.
Non-RCRA Hazardous Wastes (Connecticut Regulated Wastes)	List of non-hazardous wastes which are subject to special requirements in CT.
COMPASS (Hazardous Waste Compliance Assistance Program) Document Package	Summary of COMPASS program, plus fact sheets regarding hazardous waste generator category, use of manifests, container management, inspections, personnel training, and contingency plan requirements.
Management of Used Oils in Connecticut	Comprehensive guidance on the management of used oils and other oily wastes in CT.
Management of Aerosol Cans	Two-page fact sheet on the proper management and disposal of aerosol cans.
Universal Waste Rule	Overview of special, reduced hazardous waste requirements for batteries, mercury thermostats, recalled pesticides, and fluorescent lamps. www.dep.state.ct.us/wst/mercury/uwrule.htm
Water Based Paints — A Pollution Prevention Case Study	Case study of an auto body shop that reduced air emissions and waste generation by switching to water based paints.
New Parts Cleaning System Eliminate Hazardous Waste — A Pollution Prevention Case Study	Case study of efforts by the USPS to reduce hazardous waste generation at its vehicle maintenance facilities.
Business Recycling: Automobile Battery Markets	A listing of potential battery recycling vendors.

Appendix B

Emergency Planning & Community Right-to-Know Act of 1986 (EPCRA)

EPCRA [40 CFR 355] is a federal law, enforced by the federal Environmental Protection Agency, managed by the state emergency response commission (SERC) and local emergency planning committees (LEPC). EPCRA applies to storage and handling of hazardous materials (chemicals). EPCRA requires that facilities report storage of certain chemicals above a certain amount to the state and local authorities. This law is called both "EPCRA" and "SARA Title III". In this fact sheet, it will be referred to as "EPCRA."

EPCRA was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. These concerns were triggered by the disaster in Bhopal, India, in which more than 2,000 people suffered death or serious injury from the accidental release of methyl isocyanate. To reduce the likelihood of such a disaster in the United States, Congress imposed requirements on both states and regulated facilities. EPCRA's provisions help increase the public's knowledge and access to information on potentially toxic chemicals at individual facilities, their uses, and releases into the environment. The state and your community can use the information to better respond if there is a chemical accident at your facility, protecting both your workers and your neighbors.

For vehicle service facilities, there are three major sections of EPCRA that require reporting to state and local authorities:

1. Hazardous chemical storage reporting, or the "community right-to know" requirements (Sections 311-312)
2. Emergency planning (Sections 301-303)
3. Emergency release notification (Section 304)

This fact sheet provides a summary of EPCRA, and is designed to guide you to determine whether you might be required to comply. If EPCRA applies, or might apply, to your facility, you should request the "Connecticut Right-to-Know Compliance Guide" which lists the extremely hazardous substances and their reportable quantities, and includes the necessary reporting forms. The compliance guide is available by contacting the Connecticut State Emergency Response Commission (CT-SERC), 79 Elm Street, Hartford, CT 06106, and (860) 424-3373.

Reporting Hazardous Chemicals (EPCRA Section 311-312, or "Community Right-To-Know Requirements")

EPCRA Section 311- List of Chemicals Form

The Occupational Safety and Health Administration (OSHA) requires employers to keep copies of Material Safety Data Sheets (MSDS) for each hazardous chemical available for employees. Distributors are required to provide MSDSs for hazardous substances [29 CFR 1910.1200].

You must complete a "Section 311-List of Chemicals" form if you have chemicals on site that are required under OSHA to have MSDSs, and you meet one of the following two conditions:

1. You store one or more substance listed as an "extremely hazardous substance (EHS)" in quantities equal to or greater than the listed "threshold planning quantity (TPQ)" or 500 lbs., whichever is less. The list of EHSs and their threshold planning quantities is available in the CT Right-to-Know Compliance Guide, in 40 CFR 355.30e(2)(1), and in the "Title III Consolidated List of Lists" on EPA's website – http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/chemicalinfo.htm, OR

2. You store 10,000 pounds or more of any hazardous substance requiring a MSDS.

Although the law states that you may submit copies of the MSDSs or a list of chemicals, Connecticut prefers the list of chemicals as provided in the form "Section 311-List of Chemicals". You must send the completed form to the CT-SERC, 79 Elm Street, Hartford, CT 06106-5127, AND the LEPC (contact CT-SERC or local fire department for LEPC contact), AND your local fire department. You must file the "Section 311-List of Chemicals" form within 3 months of first having reportable quantities of hazardous chemicals at your facility, and it must be updated when new hazardous chemicals are stored in reportable quantities at your facility.

EPCRA Section 312 - Annual Tier II Reporting

If you are subject to the Section 311 reporting requirements described above, you must also submit an annual Tier II report which requires you to inventory your facility's hazardous chemicals and identify their storage locations. The Tier II report form "Tier II Emergency and Hazardous Chemical Inventory" is available in the CT Right-to-Know Compliance Guide or can be downloaded – see "Tier2 Submit" on the EPA website at http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/tier2.htm.

You must submit a completed Tier II report to the CT-SERC, AND the LEPC, AND your local fire department each year by March 1. CT-SERC strongly encourages that you submit the report in electronic format. *(Note: The Tier II report is different than the State Fire Marshal's form.)*

What are vehicle service facilities likely to report under the Section 311 and Tier II reporting requirements?

You must report storage of gasoline, diesel fuel, propane, ethylene glycol, kerosene or fuel oil (all of which require MSDSs) in excess of 10,000 pounds. Gasoline weighs roughly 6.19 pounds per gallon, diesel weighs roughly 7.05 pounds per gallon, and propane weighs roughly 4.23 pounds per gallon at 60 degrees Fahrenheit. *Note that this requirement does not apply to gasoline stations open to the public that store less than 75,000 gallons of gasoline and/or 100,000 gallons of diesel fuel in underground tanks.*

You must also report the sulfuric acid in lead acid and gel pack batteries in excess of 500 pounds. The average car battery contains approximately 5 pounds of sulfuric acid. You must also report the lead in lead acid batteries in excess of 10,000 pounds. The average car battery contains 18- 20 pounds of lead. *Note that this reporting requirement does not apply to batteries waiting to be sold. However, large or unusual batteries (e.g., truck-size or double batteries) are not exempted.*

Emergency Planning: Notification and Participation (EPCRA Sections 301-303)

If you store any of 356 listed "extremely hazardous substances (EHS)" in excess of the listed "threshold planning quantity (TPQ)", you are required to complete a "Section 302-Emergency Planning Notification Form" and submit it to the CT-SERC, AND the LEPC within 60 days of when the substance becomes present at the facility. The list is available in the CT Right-to-Know Compliance Guide, in 40 CFR 355.30e(2)(1), and in the "Title III Consolidated List of Lists" on EPA's website – http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/chemicalinfo.htm.

If you are required to file a "Section 302/303 Substances and Facilities Covered and Notification" form, you must also under "Section 303 Comprehensive Emergency Response Plans" designate a facility emergency coordinator who will be the representative to the LEPC. The LEPC was formed under Section 301 and if you are reporting under Sections 302 and 303, you are automatically a member of the LEPC. (The form can be found in the CT Right-to-Know Compliance Guide.)

What are vehicle service facilities likely to report under the Section 302 reporting requirements?

You must also report the sulfuric acid in lead acid and gel pack batteries in excess of 1,000 pounds. The average car battery contains 5 pounds of sulfuric acid. This reporting requirement applies to batteries waiting to be sold, those stored for pickup under the Universal Waste Rule, some batteries in emergency generators or lighting, and those in vehicles owned or operated by the facility. *Note that this requirement does not apply to batteries in customers' or workers' vehicles.*

You must also report ammonia at your facility in excess of 500 pounds. Ammonia can be found in refrigeration systems and in some products such as water-based paints (acts as the catalyst), windshield wiper fluid, and floor strippers.

Emergency Release Notification (EPCRA Section 304)

You must immediately report an accidental release to the following three places:

- LEPC – Call 911;
- CT-SERC - Any spill of a chemical substance into Connecticut's waters must be reported to the CT-DEP. In Connecticut, an accidental release, or spill, of any chemical substance is reportable under CGS Section 22a-450 to the CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338 or (860) 424-3333; and
- National Response Center (NRC) at (800) 424-8802.

See the Spill Reporting Fact Sheet for more details on reporting requirements.

FOR MORE INFORMATION: Contact the Emergency Planning and Community Right-to-Know Information Hotline at (800) 424-9346, or (703) 412-9810, or TDD (800) 535-7672. Monday through Friday, 9:00 am to 6:00 pm, Eastern Time, **OR** contact the CT-State Emergency Response Commission, 79 Elm Street, Hartford, CT 06106-5127, (860) 424-3373.

Did You Know?

If you are unsure about whether to report chemical spill to the National Response Center, it is better to report than not. Not reporting can result in a costly error.

Appendix C

Vehicle Fluids Mixing Chart

The chart below is provided as a quick reference to show which vehicle fluids can be mixed, and which should be kept separate for recycling. Many vehicle fluids can be recycled, providing that they are not mixed with the wrong type of other fluid. In general, the purer the waste stream, the higher the value to the recycler.

Please be aware that vehicle fluids can become hazardous waste if they are contaminated. The general rule is -- a hazardous waste determination should be done for every type of fluid removed prior to mixing. If you determine that your waste is non-hazardous, you may manage that type of fluid as non-hazardous. (See Appendix A for more information on hazardous waste determinations.)

Fluid Type	Oil	Brake Fluid	Automatic Transmission Fluid	Power Steering Fluid	Hydraulic Fluid	Antifreeze	Gasoline
Oil	Same Fluid	Yes	Yes	Yes	Yes	No	No
Brake Fluid*	Yes	Same Fluid	Yes	Yes	Yes	No	No
Automatic Transmission Fluid	Yes	Yes	Same Fluid	Yes	Yes	No	No
Power Steering Fluid	Yes	Yes	Yes	Same Fluid	Yes	No	No
Hydraulic Fluid	Yes	Yes	Yes	Yes	Same Fluid	No	No
Antifreeze	No	No	No	No	No	Same Fluid	No
Gasoline	No	No	No	No	No	No	Same Fluid

*Check with your waste hauler if you have a significant amount of silicon-based (DOT 5) brake fluid.

Contact Information

Connecticut Department of Environmental Protection

24-hour Emergency Spill Reporting	(860) 424-3338
Bureau of Air Management	(860) 424-3027
Bureau of Waste Management,	
Engineering & Enforcement	(860) 424-3023
Hazardous Waste Compliance Assistance (COMPASS)	1-888-424-4193
Bureau of Water Management	(860) 424-3018
Office of Pollution Prevention	(860) 424-3297
Permit Assistance Office Small Business and Compliance Assistance	(860) 424-3003
State Emergency Response Commission	(860) 424-3373
Source Reduction and Recycling	(860) 424-3365
Underground Storage Tank Enforcement Program	(860) 424-3374

Other Numbers

EPA - Air Quality Program: Information on refrigerants, training, certification and to report complaints	(617) 918-1858
CONN OSHA - Worker safety and health information and assistance	(860) 566-4550

2004 Pit Stops Fact Sheets
Connecticut Department of Environmental Protection, 79 Elm Street, Hartford, CT 06106-5127
Office of Pollution Prevention (860) 424-3297 www.dep.state.ct.us/wst/p2/vehicle/abindex.htm
Fact Sheet: DEP-P2-PITSTOPS-FS-024 Last Updated: August, 2004