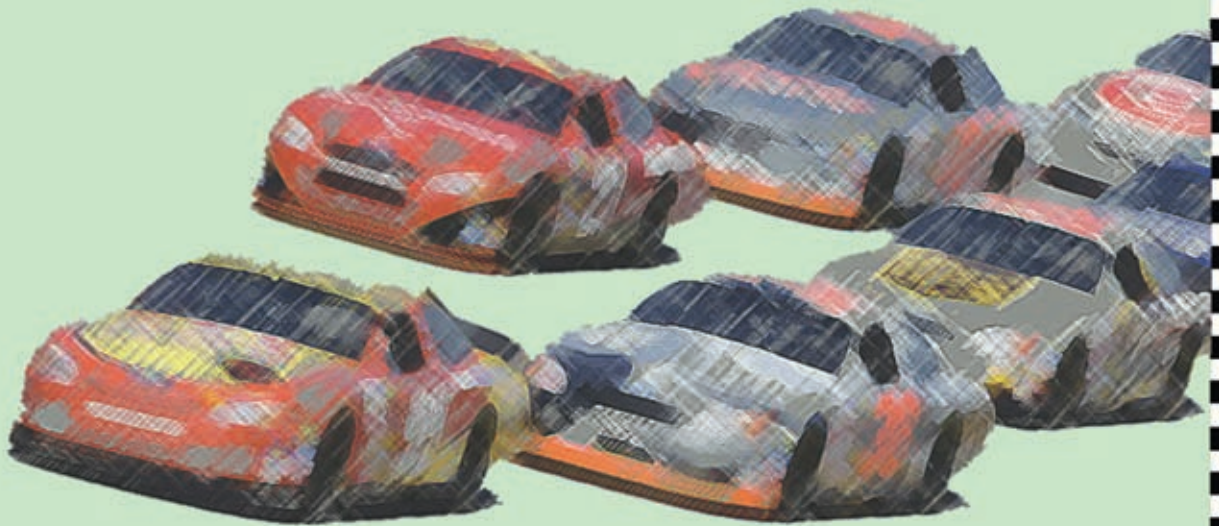


VERMONT ENVIRONMENTAL GUIDE FOR VEHICLE SERVICE



A Guide For...

Vehicle Service • Municipalities • Urban Transit Authorities • Auto Dealerships •
Contractors • Charter Buses • Fleet Maintenance • Taxi & Limousines • Marinas •
General Freight Trucking • Motorcycle Dealer & Repair • Snowmobile Dealer &
Repair • Small Engine Repair • Couriers • Utilities • Towing • Ski Areas

revised fall 2006

 **VERMONT**
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

This guide has been developed with the vehicle service facility in mind. We have spent a fair amount of time in shops and garages across the state, so we understand your work, and are familiar with your operations and the chemicals you use. We have included enough detail so that most of your questions will be answered right here. This guide will not only help you understand environmental regulations but can also help you reduce wastes, minimize some regulatory requirements, and provide you with some peace of mind.

If you need more help or a person to talk to, you can call the ***Environmental Assistance Hotline***.

800-974-9559

The Environmental Assistance Office (EAO)

The EAO is a non-regulatory Office within the Department of Environmental Conservation (DEC). Our services include: hotline assistance, on-site assessments, workshops and trainings, recognition programs, and waste reduction assistance. These services are confidential and provided at no cost.

If you are planning new construction or modifications to your facility, contact the EAO's Permit Specialists to see what state permits you may need (in addition to contacting your municipal office for local ordinances and permitting requirements). See Appendix I for information on how to contact the Permit Specialist in your area.



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How To Use This Guide

The Vermont Environmental Guide for Vehicle Service is divided into three parts - **Guidance, Fact Sheets, and Appendices**. The Guidance section provides tips for success and covers the important regulatory requirements applicable to vehicle service facilities, including sections on:

- hazardous waste
- wastewater and floor drains
- air quality, and
- petroleum storage.

Each of these sections contains self audit checklists which can be used to determine whether your shop is in compliance with Vermont's environmental regulations. The self audit checklist questions are worded such that if you answer "Yes" or "Not Applicable (N/A)," you are likely to be "in compliance" with the specific requirement. If your answer is "No," we recommend you revisit the regulatory issue being discussed and review the fact sheets associated with the topic to learn more about how to comply.

If you are not sure whether a certain practice or activity at your shop meets the regulations, please call the Environmental Assistance Hotline at 800-974-9559.

The second part of the Guide is a series of environmental fact sheets that provide detailed information on various wastes and regulatory topics. These fact sheets were assembled to serve as a quick reference on regulatory requirements.

The third part, or the Appendices section, contains additional useful materials (i.e. sample forms, additional compliance information, and resource lists).

Finally, this guide will use race track flags to communicate specific information within text boxes. Like at the race track, each flag means something different. The boxes below explain how the flags will be used (please keep in mind that multiple flags may apply to information presented in boxes - we tried to pick the flag that fits best):

BEST MANAGEMENT PRACTICES



Green means GO! Implementing Best Management Practices (BMPs) can save your facility money, reduce regulatory requirements and improve safety. Consider how the BMPs discussed in the boxes with green flags can improve your operations.

TIPS AND HINTS



Sometimes it makes sense to pause in order to make adjustments. When you see the Pit Stop sign, pause to consider the helpful information revealed in the boxes devoted to tips and hints.

REGULATORY MUST



On the race track, a black flag requires a driver to pull into the pits. In this Guide, boxes with black flags cover regulatory requirements with which facilities must comply.

REGULATORY PITFALLS



On the race track, yellow means CAUTION. In this guide, boxes with yellow flags caution the reader about issues that commonly result in violations during inspections.

SUMMARY OF IMPORTANT POINTS



The white flag indicates one lap left. In this guide, a white flag will appear at the end of each section along with a summary of the important points covered. Review the points to make sure you understand and are complying with the basics.

FINISH



You will take the checkered flag at the end of each section.

Take advantage of no cost assistance programs

As the cost of running a vehicle service facility rises, and environmental regulations continue to change, it is often difficult to keep costs down and keep track of all the requirements that apply to your operations. There are several no cost programs, like the Small Business Compliance Assistance program within the Environmental Assistance Office, that can help deal with all the applicable regulatory requirements, while keeping costs in check. This will free you up to focus on your primary job, servicing vehicles.

Be careful what you throw in the dumpster, or pour down the drain

Hazardous substances should never be thrown out with regular trash or poured down the drain. Some vehicle service wastes such as tires, batteries, paints, oil soaked materials, and other liquids are banned from Vermont landfills. Although certified hazardous waste haulers can be used, most solid waste districts can help with recycling and disposal options for these materials.

Use prevention strategies

Waste, air emissions and wastewater discharges can be reduced or eliminated by practicing Pollution Prevention (P2). P2 involves replacing toxic/hazardous products/cleaners with environmentally “friendly” products; equipment and process modifications; and improved operations and maintenance, including employee training. By practicing P2, most facilities will see reduced environmental costs and find compliance less overwhelming.

Keep hazardous materials and service activities away from floor drains

Service vehicles in areas with no floor drains or in areas where floor drains are plugged or covered. Some facilities use temporary drain plugs, or floor drain mats on their floor drains. Hazardous materials in floor drain discharges can lead to local ground water and soil contamination, or cause problems at the local wastewater treatment plant.

Maintain and know how to use your Material Safety Data Sheets (MSDS)

All chemical products have MSDS that detail key environmental, health and workplace safety information. These sheets should be filed in such a way that that it is easy to see which sheet goes with any given product. Maintain and update your MSDS at least annually and make sure each employee knows how to use the MSDS book. This will ensure they know how to react in the event of an emergency. Every chemical product in your facility must have an MSDS available to employees.

Properly label and store waste containers

Inspectors often find waste containers that do not meet waste storage requirements including improperly stored and labeled wastes. Choose one area to store your wastes rather than storing them in multiple locations. Use labels that identify the contents of the container to avoid the mystery of an unlabeled container. Unidentified wastes can lead to bigger problems. For Conditionally Exempt Generators (see Hazardous Waste section), containers holding hazardous wastes must be marked with the words “hazardous waste” as well as words that identify their contents (i.e. “oil soaked-hazardous waste”).

Reuse and recycle whenever possible

Many wastes generated at vehicle service facilities can be reused or recycled. Learn more about reuse and recycling options from your local solid waste district (see Appendix H), in this guide book, and from the Environmental Assistance Office.

Keep it off the floor

Spills, leaks and drips of vehicle fluids can lead to clean-up and disposal costs. Consider using drip pans to help catch drips and leaks, and use funnels when transferring or changing vehicle fluids. By reducing the need to clean your floors, you will minimize the use of oil soaking absorbents (which ultimately become hazardous waste).

Consider your parts washing options

Many vehicle service facilities use petroleum-based solvents to clean parts. Consider more environmentally friendly parts washing options or aqueous based parts cleaners. There are many aqueous parts washing options on the market that can improve worker health and safety and will result in less hazardous waste generation.

Keep good records

Keep every receipt, bill of lading, or manifest every time you buy products containing hazardous materials or dispose of waste. Well kept records year after year will help you better track material use and waste management. Good record keeping can also help expedite a property sale or help you secure a loan. Even when not required by regulation, you should always keep records of waste generated and properly disposed to reduce your liability.

Involve and train your staff

When setting up waste management systems and worker safety programs, you will find involvement of the entire staff will produce better results in the long run. Allow each person to provide their input to ensure that you design and implement programs that work at your facility.

HAZARDOUS WASTE



Vehicle service facilities typically generate several waste streams which require special management as hazardous waste, used oil or universal waste. From the very start, it is important to understand that less is better. When a facility only generates small amounts of hazardous waste (i.e. less than 220 pounds per month), it is subject to fewer regulations and may incur lower waste management costs. In order to determine how wastes should be managed, a vehicle service facility should follow these steps:

STEP 1 – Determine whether any wastes are exempt.

Many of the hazardous wastes generated by vehicle service operations may be exempt from full regulation as hazardous waste. Why is this important? Generally, it is easier and less costly to manage wastes under their respective exemptions than to manage them as hazardous waste. **To take advantage of the exemptions, each waste must be managed according to specific conditions.** It is important to know that exempt wastes do not have to be counted when determining how much hazardous waste your facility generates per month. This is important when determining your “generator status.” It is your generator status that determines which regulatory requirements you must comply with (see Step 3). The following wastes may be managed as exempt provided specific conditions are followed:

- Used Oils – crankcase / transmission / hydraulic
- Used Oil Filters
- Oil Soaked Absorbents (socks, pads)
- Contaminated Shop Rags
- Spent Antifreeze
- Lead Acid Batteries
- Gas Filters (only metal cased) & Fuel System Components
- Mercury Switches (trunk & hood lights, and ABS sensors)
- Fluorescent & HID Lamps
- Chlorofluorocarbon (CFC) Refrigerants
- Waste Fuel & Fuel-Water Mixtures

Fact sheets dealing with specific auto service waste streams are available in the fact sheet section of this guide. These fact sheets explain how each waste must be managed in order for the waste to be considered “exempt.” **You should review the fact sheet for each of the potentially exempt hazardous wastes your facility generates to determine whether your management practices are consistent with the practices required by the exemptions.**

STEP 2 – Determine if the waste is “listed” as a hazardous waste or exhibits any of the hazardous waste “characteristics.”

In general, waste is regulated as hazardous waste if it is specifically “listed” in the regulations, or if it exhibits at least one of four hazardous waste “characteristics” - ignitability, corrosivity, reactivity and toxicity. For each waste generated, a generator should use the following procedure to determine if the waste is hazardous:

1. Determine if the waste is a “listed” hazardous waste (see Appendix A for information on the wastes that are listed in the Vermont Hazardous Waste Management Regulations as hazardous waste;
2. Determine if the waste exhibits any of the four hazardous waste “characteristics” (see Appendix A for an explanation of how the characteristics are defined).

To determine if a waste is a hazardous waste, a generator can use their “knowledge of the process” that produces the waste, and / or conduct analytical testing at a laboratory. Although it is helpful to review Material Safety Data Sheets (MSDS) (see Appendix F for guidance on how to read a MSDS) when making a hazardous waste determination, sometimes analytical testing is required. Because it is ultimately the generator’s responsibility to make the proper hazardous waste determination, carefully review the information presented in this guide, examine your MSDS information, and take into account your knowledge of the process to decide which of your wastes are hazardous wastes.

If a facility decides that laboratory testing is necessary, it should only test for those contaminants likely to be present in the waste in order to keep costs down. A “total metals” analysis can be used to screen for the specific metals of concern (i.e. lead, chromium or other regulated metal), and a “total petroleum hydrocarbon” (TPH) test can be used to determine the concentration of oil in spent material.

Contact the EAO or the Waste Management Division’s Hazardous Waste Program for guidance before testing and for assistance with interpreting results.

REGULATORY PITFALL



Making correct hazardous waste determinations is very important because it is the foundation for being in compliance. However, doing so can sometimes be difficult. If you are unsure about your determinations, or need assistance making a hazardous waste determination, please contact the Environmental Assistance Office at 1-800-974-9559 or the Hazardous Waste Management Program at (802) 241-3888.












HAZARDOUS WASTE

STEP 3 – Determine your “generator status.”

The following table lists hazardous wastes commonly generated by the vehicle service industry, and was designed to help determine how many pounds of hazardous waste are generated by your facility per month. To use the table:

- 1 Review the list of hazardous waste streams in the first column and indicate which, if any, you generate in the fourth column titled “Do I Generate This Waste?” For your reference, applicable fact sheets are noted in the red circles next to the waste streams listed in the first column.
- 2 For each waste that is generated, use the last column to account for how many pounds are generated per month. If you have determined in Step 1 (see page 5) that a particular waste stream is exempt, you do not have to count this waste – simply write “E” in the last column. Potentially exempt wastes are found in the green shaded cells of the table.
- 3 Once you have recorded the amount in pounds of each hazardous waste generated per month, total the last column and record the sum at the bottom in the total box.

Regulated Wastes Typically Generated by Vehicle Service Operations	Typical Waste Code	Likely Hazardous Property	Do I Generate This Waste? (Y=yes N=no)	How Many Pounds Do I Generate Per Month? (E=exempt)
Oils – crankcase / transmission / hydraulic FS1 FS2	N/A - Used Oil	A petroleum distillate, suspected carcinogen		
Oil Filters FS3	VT02	Petroleum content >5% by weight.		
Oil-Soaked Absorbents (i.e. socks, pads, “speedi-dry”) FS4	VT02	Petroleum content >5% by weight.		
Contaminated Shop Rags FS8	VT02, D001, F002, F003, F005	Petroleum content >5% by weight, often ignitable		
Petroleum Based Cleaning Solution FS7	VT02, D001	Petroleum content >5% by weight, often ignitable		
Aqueous Parts Cleaning Solution * FS6	VT02, D008	Petroleum content >5% by weight, toxic metals		
Antifreeze FS5	VT08, D008 D018	Ethylene Glycol, toxic heavy metals		

Regulated Wastes Typically Generated by Vehicle Service Operations	Typical Waste Code	Likely Hazardous Property	Do I Generate This Waste? (Y=yes N=no)	How Many Pounds Do I Generate Per Month? (E=exempt)
Lead Acid Batteries 	D002, D008	Lead, Corrosive		
Gas Filters 	D001, D018	Ignitable, Benzene		
Contaminated Gasoline  	D001, D018	Ignitable, Benzene		
Contaminated Diesel  	VT02, D001	Petroleum content >5% by weight, often ignitable		
Paints & Paint Related Materials	D001, F003, F005, D035	Often have ignitable or toxic solvents. Some colored paints contain toxic metals		
Various Spray Cans with Remaining Product *	D001, F003, F005	Often have ignitable or toxic solvents.		
Oil Water Mixture	VT02	Petroleum content >5% by weight.		
Floor Drain Sludge * 	VT02	Petroleum content >5% by weight.		
Mercury Switches 	D009 or Universal Waste	Mercury		
Mercury Fluorescent Lamps  	D009 or Universal Waste	Mercury		
Chlorofluorocarbon refrigerants* 	Characteristic	Toxicity		
Total				

* Waste streams listed in red may or may not be hazardous. See the discussion in Step 2 on making a hazardous waste determination.

TIPS AND HINTS



For Vermont-listed wastes (i.e. those with waste codes that start with "VT"), a generator can average the amount of waste generated over a six-month period and use that value when determining monthly hazardous waste generation rates. Please note, if a waste has additional waste codes that do not begin with "VT," the waste is not eligible for averaging over time.

HAZARDOUS WASTE



I know how much hazardous waste I generate per month. What's Next?

After reviewing the information above, you should have a good idea about which wastes are regulated as hazardous wastes. You should also have an estimate or actual information about how much of each hazardous waste your facility generates (in pounds) per month. Remember, exempt wastes do not have to be counted when determining how much hazardous waste your facility generates per month.

If your facility generates less than 220 pounds of hazardous waste per month, it is regulated as a **Conditionally Exempt Generator (CEG)**. Requirements for CEGs are minimal when compared to the

requirements for those that generate 220 pounds or more of hazardous waste per month. Most vehicle service operations should be able to qualify as a CEG (although, this may not be true if your facility is involved in additional vehicle service operations, like auto body work or auto salvage). If your facility does not qualify as a CEG, you should investigate whether the pollution prevention ideas presented in the waste specific fact sheets may help lower your monthly hazardous waste generation rate. Remember, less is better. Contact the Environmental Assistance Office at 1-800-974-9559 for additional assistance.

If your facility generates 220 pounds or more of hazardous waste per month, it is either a Small Quantity Generator or a Large Quantity Generator. In this case, contact the Environmental Assistance Office or the Waste Management Division's Hazardous Waste Program for information about the requirements that apply to your generator status.

THE FOLLOWING CHECKLIST IS ONLY FOR CEGs.

Self Audit Checklist for Conditionally Exempt Generators of Hazardous Waste

The checklist to follow summarizes CEG requirements, and will help you determine if you are in compliance with Vermont's hazardous waste regulations. The statements are worded such that a "No" response indicates a compliance problem.

1. We have evaluated all of our wastes and determined which are "hazardous wastes."
Yes No

REGULATORY MUST



CEGs may not accumulate more than 2,200 pounds of hazardous waste on-site at any one time. If a generator exceeds this limit, it becomes a fully regulated generator. This is equivalent to about 5 drums of waste that weighs roughly the same as water.

2. We have calculated our monthly hazardous waste generation rate and determined that we are either a Conditionally Exempt Generator (less than 220 pounds/month) OR that we are a fully regulated hazardous waste generator.

Yes No

3. We have filed a Hazardous Waste Handler Site ID Form with the Waste Management Division.

Yes
No

REGULATORY MUST



All facilities producing any quantity of hazardous waste are required to file a "Hazardous Waste Handler Site ID" form with the Waste Management Division (WMD).

After receipt of the form, the WMD will assign your business a site-specific EPA Identification Number. Please see the instructions and sample form in Appendix B. If you are unsure whether your facility has filed this form, contact the EAO.

4. All of our hazardous waste is stored in containers that are:

- In good condition and chemically compatible with the waste stored in them;
- Closed except to add or remove waste;
- Marked with the words "Hazardous Waste" and other words that identify the contents;
- Located on an impervious surface;
- Kept under cover to protect from rain and snow;
- Protected from freezing (applicable for freezable wastes)

Yes No

5. Incompatible wastes are:

- Not placed in the same container (or placed in an unwashed container that once held an incompatible waste);
- Stored in containers that are separated from each other by means of a dike, berm, wall or other device.

Yes No N/A

6. We conduct hazardous waste management operations in a manner that minimizes the possibility of fire, explosion or any release of hazardous waste which could threaten human health or the environment.

Yes No

7. In the event of a release of hazardous waste, we comply with the applicable emergency action requirements (see the "Hazardous Materials Spill Response" fact sheet for additional information).

Yes No

HAZARDOUS WASTE



8. We utilize our solid waste district for hazardous waste disposal, or ship our hazardous waste to a certified treatment, storage or disposal facility using a licensed hazardous waste transporter. (Other management / disposal options may apply – contact the Environmental Assistance Office or the Hazardous Waste Management Program for more information).

Yes No

9. We have read all of the applicable fact sheets related to the hazardous wastes we generate at our facility (as noted in the table on pages 5 & 6), and are managing our equipment, materials and waste as described in these fact sheets.

Yes No

BEST MANAGEMENT PRACTICES



Although not specifically required by the hazardous waste regulations, consider the following BMPs:

- Store liquid wastes away from floor drains;
- Store hazardous waste in one location - its easier to keep track of it;
- Periodically inspect waste containers for leaks;
- Provide training to your employees about proper waste management and spill response.

SUMMARY OF IMPORTANT POINTS



- Take advantage of the exemptions, but make sure your management practices are consistent with the practices required by the exemptions.
- Make correct hazardous waste determinations - this is the foundation for being in compliance.
- If you generate less than 220 lbs. of hazardous waste per month, use the Self Audit Checklist to determine whether you are in compliance. If you generate 220 lbs. or more, contact the Environmental Assistance Office or Waste Management Division for more information on being a fully regulated generator.



WASTEWATER AND FLOOR DRAINS

Wastewater discharges are regulated by the Department of Environmental Conservation's Wastewater Management Division, operating out of Waterbury and the five Regional Offices around the state (see appendix I). Common wastewater discharges from vehicle service facilities include snow melt from vehicles, floor cleaning, and vehicle washing. Typically, wastewater enters a floor drain which ultimately discharges to a municipal treatment plant, an on-site system like a septic tank and leach field, or it may discharge to the ground surface.

REGULATORY MUST



A wastewater permit is required for any sanitary discharge (toilets, sinks, showers, etc) from a public building to either a municipal treatment plant or an on-site subsurface system unless the discharge began prior to 1970. Any new wastewater connection or new use of an existing connection may also require a permit from the DEC's Regional Office. See Appendix I for contact information.

Floor Drains

In Vermont, the construction of any new floor drain requires a permit from the Wastewater Management Division, and the system must discharge to a treatment plant or holding tank.

The Wastewater Management Division's Underground Injection Control (UIC) program has proposed new regulations that affect floor drains. Existing floor drains that do not discharge to either a municipal wastewater treatment facility or a holding tank, will have to be phased out in the future. While the rule adoption process is underway, the UIC program requires the registration of all floor drains that discharge underground to a dry well, a leach field, or to the ground surface.

Once adopted, Vermont's UIC Rules will not permit any subsurface discharges from floor drains in vehicle service bays, and will only allow discharges to the ground surface from snow melt or vehicle washing (see Wastewater Discharges From Vehicle Washing fact sheet for additional requirements). All floor drains will have to either be permanently closed or re-routed to a treatment plant or holding tank. We understand that connecting to the municipal sewer is not an option for many facilities and encourage those facilities to consider their options before the new rules are adopted.

For those facilities unable to connect to a municipal sewer system, one option is to close the floor drain(s) in areas where vehicles are serviced and/or hazardous materials are stored, and leave the floor drain(s) in the other bay(s) (for snow melt only). The service bay(s) would have to be completely physically isolated so that a spill in the service area could not reach the floor drains in the snow melt bays. If you choose to isolate one area, remember that no hazardous materials or oils can be stored in the snow melt bay(s).

WASTEWATER AND FLOOR DRAINS

Just to be clear, facilities with existing floor drains that discharge to the subsurface must register them with the UIC program (contact EAO for the registration form). Now is the time to consider your floor drains and the options that may work best for your facility. We encourage you to do one of the following:

- permanently plug the drains
- connect them to a treatment plant or holding tank system
- isolate a service only bay or area and move all oils and hazardous materials out of snow melt areas

Self Audit Checklist for Floor Drains

The following checklist summarizes basic wastewater requirements and will help you determine if you are in compliance. The statements are worded such that a “No” response indicates a likely compliance problem.

1. Our facility discharges floor drain wastewater to a municipal treatment plant and has received approval from the local sewer authority for this discharge.

Yes No N/A

2. Our facility operates and maintains an oil/water separator (if required) by our municipal sewer ordinance or other local sewer authority.

Yes No N/A

TIPS AND HINTS



It is important to keep detailed maintenance and service records for any oil/water separator. Separators should be inspected annually and cleaned as needed. If an accidental spill of a hazardous material enters a separator, it should be cleaned promptly. Refer to the “Oil/Water Separator” fact sheet for more information.

3. Our facility discharges floor drain wastewater to an on-site subsurface system or to the ground surface (e.g. septic system) and we have completed and submitted an Underground Injection Control (UIC) registration form to the Regional DEC Office for review. (see Appendix I)

Yes No N/A

REGULATORY MUST



The construction of a new floor drain in an area where vehicles are serviced or where hazardous materials are stored is prohibited unless the floor drain is connected to either the municipal sewer or a holding tank.

4. Our facility does not discharge wastewater from the exterior washing of vehicles to an on-site subsurface system (e.g. septic system).

Yes

No

N/A

5. Our facility discharges wastewater directly to the ground surface and the discharge is only snowmelt, and the snow melt does not originate in a vehicle maintenance bay.

Yes

No

N/A

TIPS AND HINTS



See fact sheet on "Wastewater Discharges from Vehicle Washing" to learn more about available options for handling vehicle washwater.

REGULATORY PITFALLS



Areas that are physically isolated from service bays to allow for the discharge of snowmelt can not be used to store hazardous materials or oils.

6. Our facility does not dispose of any waste oil, antifreeze, solvents or other hazardous materials in sinks or floor drains.

Yes

No

N/A

WASTEWATER AND FLOOR DRAINS

BEST MANAGEMENT PRACTICES



The following are BMPs for floor drains:

- Even when not required, use of an oil/water separator represents a BMP whenever floor drain wastewater is generated at a vehicle service facility. Use of a separator would likely be required where discharges go to a holding tank and contents are pumped for transport to a municipal plant for treatment and disposal.
- Use drain plugs or drain covers to prevent liquids other than water from being discharged. Eliminate floor drains if possible.
- Keep spill clean-up materials readily available and make sure employees know proper response procedures.
- Keep floors as clean as possible. Sweep floors to avoid washing with water. For small spills and leaks, use reusable shop rags, wet-vacuums, drip pans, etc. to avoid the use of absorbents that typically result in generation of a hazardous waste. See “Oily Wastes” fact sheet.
- Use oil soaking absorbent pads, socks or booms throughout your floor drain system to minimize residual oils from being discharged.

Stormwater

The quality of our surface waters is continually under pressure as development and associated sources of pollution grow. The number one stormwater impact on our lakes and rivers is sediment. Although typical vehicle service facilities are not required to get a permit for stormwater discharges at this time, ultimately you are responsible for polluted stormwater that runs off your site and reaches lakes and rivers.

REGULATORY MUST



If you are required to get the Multi Sector General Permit for stormwater discharges, and maintain and service a fleet of vehicles, those vehicle service activities must be addressed in your stormwater permit. Contact the EAO for additional information.

A good way to approach stormwater management at your facility is to divide the outside grounds surrounding your facility into sections. It is often easier to address those sections individually, rather than trying to address stormwater discharges as a whole. A little work now may help in the long run in dealing with stormwater at your site. Some general BMPs include;

- Encourage stormwater to discharge in sheet flow to vegetated and grassy areas rather than channel flow to one or a few discharge points.
- Implement methods to slow discharge water down, and break up the flow of water. Such activities will greatly reduce the amount of sediment and other pollutants washing off-site.
- Use stone “check dams” to slow stormwater and allow sediments and other pollutants to settle out before running off-site.
- Cover outdoor storage piles and materials to prevent contact with stormwater.
- Push and dump snow in areas away from surface waters. Snow piles often contain large amounts of sand, sediment, and trash which need to be properly managed once the snow melts.

REGULATORY PITFALLS



You may need a stormwater permit at your facility if you are planning any construction or are considering expanding your parking area. If you plan to expand your main facility or add additional pole barns or storage buildings you may trigger the need for a construction stormwater permit. By increasing impervious surfaces (ie paving and buildings) you may also trigger the need for a stormwater permit after construction is complete. Contact the Stormwater Section at 241-3770 for additional information.

WASTEWATER AND FLOOR DRAINS

SUMMARY OF IMPORTANT POINTS



- Know whether your wastewater discharges are going to a municipal wastewater treatment facility, an on-site septic system, or being discharged to the ground.
- Make sure you have permission from your local wastewater treatment plant operator for your discharges to the local sewer system.
- All floor drains that discharge to the subsurface or to the ground surface must be registered with the DEC's Wastewater Management Underground Injection Control Program.
- Floor drains that discharge to the ground surface are only allowed under limited conditions.
- Managing stormwater runoff from your property is your responsibility.



AIR POLLUTION

Air pollution can be defined simply as the presence of any air contaminant in the outdoor air that may cause harm or interfere with the enjoyment of life. Air pollution can come from natural sources (forest fires, volcanic eruptions) and man-made sources and includes contaminants such as dust, fumes, exhaust, chemicals and smoke.

Vehicle service and maintenance facilities encompass a wide variety of operations that can cause air pollution, including:

Cleaning solvents – Petroleum-based solvents used for parts cleaning and other solvents found in aerosol cleaners typically contain volatile organic compounds (VOCs) which are a key ingredient in the formation of smog and may also be of concern due to their toxicity.

Air conditioning systems – Older vehicles may still contain CFC-12 (Freon) which results in destruction of the Earth's ozone layer when released to the environment. While the substitute refrigerant, HFC134-a, does not destroy the ozone layer, it is considered a greenhouse gas and thus contributes to global warming.

Space Heating – Wood, oil (including used oil), and to a lesser extent natural gas/propane fired space heaters, boilers and furnaces generate air pollution. Some fuels release less air pollutants than others but any heating system requires attention to ensure proper combustion and to minimize smoke and other pollution. An annual cleaning and tune-up is a proven method for ensuring the efficient operation of space heating equipment. Outdoor wood-fired boilers in particular have been found to be inefficient and polluting.

Road dust from unpaved traffic areas and parking lots – Road dust acts as a respiratory irritant and may result in a public nuisance. Dust suppressants such as calcium chloride may be applied as necessary to prevent dust.

Welding – Fumes and other pollutants including toxic heavy metals are released during welding operations.

Gasoline Vapors – Particularly where gasoline is stored on-site, vapors are released in the absence of controls during tank and vehicle refueling. Gasoline and its vapors contain a mix of VOCs, many of which are highly toxic. In addition to refueling operations, vapors are released from minor spills, leaks or open containers indoors and can result in unhealthy worker exposures.

In general, the combined air emissions from individual vehicle service and maintenance facilities are relatively low and do not require a permit from the Department of Environmental Conservation's Air Pollution Control Division (APCD). Still, the emissions are a concern for the general public as well as worker exposure. Thus, the regulations do prohibit facilities from emitting excessive visible smoke or causing a nuisance or odor to the general public.

AIR POLLUTION



Self Audit Checklist for Air Pollution Compliance

Specific air pollution issues addressed in the regulations are identified in the self audit checklist below. The statements are worded such that a “No” response indicates a compliance problem.

1. The cover on parts cleaning equipment using a petroleum-based solvent is kept closed when not in use or when parts are left to soak.


Yes No N/A

Note: See “Petroleum-Based Parts Cleaning” fact sheet.

2. The emission control system, including catalytic converter and gas cap, are visually inspected, and on-board diagnostics are checked electronically (for all 1996 and newer vehicles), when performing a required annual vehicle inspection.

REGULATORY MUST

Improperly working emission control systems must be repaired.




Yes No N/A

3. If burning used oil, only oil that meets “specification” is burned in approved space heating equipment, and the combined maximum operating heat input of all used oil burning equipment at the facility does not exceed 500,000 BTU per hour.

Yes No N/A

REGULATORY PITFALL



See “Burning Used Oil” fact sheet for information on what constitutes “specification” used oil and other requirements. A permit issued by the APCD and approval from the Waste Management Division may be required if burning off-specification used oil or if the aggregate operating heat input of space heating equipment exceeds 500,000 BTU per hour.

4. Technicians performing service on air conditioning systems have been certified to work with refrigerants and are using approved equipment.

Yes

No

N/A

Note: See “Motor Vehicle Air Conditioning” fact sheet for more information on required procedures affecting refrigerant recovery and reuse.

SUMMARY OF IMPORTANT POINTS



- *Cover parts washers using petroleum solvents when not in use.*
- *Be aware of visible smoke or odors leaving your facility that might create a “public nuisance”.*



PETROLEUM STORAGE

Underground Storage Tanks (UST)

An UST is any tank, including connected underground piping, the volume of which is 10% or more beneath the surface of the ground AND which is or has been used to store a “regulated substance.” For vehicle service and maintenance facilities, regulated substances are almost always liquid petroleum (at standard conditions of temperature and pressure). This includes but is not limited to gasoline, diesel fuel, hydraulic fluid, used oil and heating oil. The requirements are significantly less for petroleum stored in an UST that is used exclusively for on-site heating purposes.

Oil/water separators are not defined as USTs (see the fact sheet on “oil/water separators”), nor are underground reservoirs used to store hydraulic fluid for car lifts.

For additional information, refer to the one-page matrix in Appendix D for “General Requirements for Aboveground & Underground Storage Tanks” that are administered by the Department of Environmental Conservation’s (DEC) UST Program. (Requirements administered by other jurisdictions may also apply.)

Self Audit Checklist for UST

The checklist to follow summarizes some of the key UST requirements, and will help you determine if you are in compliance with Vermont’s UST regulations. The statements are worded such that a “No” response indicates a compliance problem.

- The UST has been registered with the DEC’s UST Program.

Yes
 No
 N/A

REGULATORY MUST



Registration is required for both “in-use” and “out-of-service” USTs. If ownership of an UST changes, the new owner must register within 30 days of transfer.

TIPS AND HINTS



An UST less than 1,100 gallons in size that is used exclusively for on-premises heating does NOT have to be registered. Registration forms are available by calling the UST Program (241-3888) or by visiting their web-site <http://www.anr.state.vt.us/dec/wastediv/ust/permit.htm>.

2. The UST has been permitted by the UST Program.

Yes No N/A

Note: An UST for which a permit is required is referred to as a “Category One Tank”. Permits are generally issued for a five year period. Application for a permit is made by completing the same form used for registration so that both registration and permitting are taken care of in one step. A permit is required for both new and existing category one tanks.

TIPS AND HINTS



Exception: An UST storing liquid petroleum that is not used oil and that is used exclusively for on-premises heating (including domestic hot water), or an UST that is “permanently out-of-service”, are not required to be permitted, regardless of size.

3. This facility is aware that for new and replacement category one tanks, a permit must be obtained before installation begins.

Yes No N/A

TIPS AND HINTS



Facilities that retail less than 20,000 gallons of gasoline per month may be eligible to apply for a zero interest loan to offset the cost of UST replacement or removal OR the cost of replacing or improving certain secondary containment and release detection components of existing underground piping systems. Contact the UST Program for more information.

4. For existing category one tanks and associated piping, all operation and maintenance requirements are met, including those affecting the monitoring and recordkeeping of allowable release detection, corrosion protection and spill and overfill protection equipment.

Yes No N/A

TIPS AND HINTS



The UST O&M Booklet is an excellent, practical resource for owners and operators that will help assure compliance with these requirements and is found at: <http://www.anr.state.vt.us/dec/wastediv/ust/OandM.htm> or by calling the Environmental Assistance Office.

5. This facility is aware that any suspected release of petroleum from an UST must be reported to the UST Program within 24 hours of discovery unless it is determined that leak detection systems are not working properly. (Defective leak detection systems must be repaired within 72 hours.)

Yes

No

N/A

REGULATORY MUST



Any confirmed release of petroleum in excess of 2 gallons must be reported as soon as possible. Reporting of confirmed releases may also be made to the UST Program at 802-241-3888 during normal working hours, or by calling the 24-hour Vermont Hazardous Materials Reporting Hotline at 1-800-641-5005.

6. For permanent closure of an UST, the UST Program will receive notification at least 5 business days prior to the scheduled closure date?

Yes

No

N/A

Exception: Notification of closure is not required for an UST less than 1100 gallons capacity used exclusively for on-premises heating purposes.

REGULATORY MUST



Any UST which has not been used for a period of one year or more must be removed from the ground, unless permission is granted by the UST Program to close the tank "in-place", and the site is assessed for contamination.

Aboveground Storage Tanks

The Vermont Department of Public Safety, Division of Fire Safety, administers requirements for the storage of flammable and combustible liquids in aboveground (and some underground) tanks. Underground storage tanks that require a permit in accord with the Department of Environmental Conservation's UST regulations do NOT need a construction permit issued by the Division of Fire Safety. Aboveground tanks, tanks used to store liquefied petroleum (LP) gas, and commercial underground tanks used exclusively for on-premises heating must apply for a tank permit from the Fire Safety Division. The application may be obtained at: <http://www.dps.state.vt.us/fire/fireprevention.htm>.

Specific questions on standards for new and existing storage tanks should be addressed to the Division of Fire Safety's Regional Office serving your area:

Region 1 – Williston.	802-879-2300
Region 2 – Barre	802-479-4434
Region 3 – Rutland	802-786-5867
Region 4 – Springfield	802-885-8883

Self Audit Checklist for Aboveground Storage Tanks

The checklist to follow summarizes some of the key aboveground storage tank requirements, and will help you determine if you are in compliance with Vermont's regulations. The statements are worded such that a "NO" response indicates a compliance problem.

1. This facility is aware that for any new or replacement aboveground tank (or underground tank not permitted by the DEC's UST Program) used for the storage of a flammable or combustible liquid, a tank permit has been obtained from the appropriate Regional Office of the Fire Safety Division.
Yes No N/A
2. If flammable or combustible liquids are stored in an aboveground tank, the tank meets or exceeds applicable Underwriters Laboratory (UL) standards for engineering and manufacture.
Yes No N/A
3. If storing gasoline, the aboveground tank is a UL-approved, two-hour, fire-resistant tank equipped with secondary containment.
Yes No N/A

REGULATORY MUST



Aboveground tanks located at service stations must also comply with National Fire Protection Association (NFPA) standards for Piping Systems.

4. If storing flammable or combustible liquids, the aboveground tank is located at least:
- 25 feet from the nearest important building on the same property;
 - 25 feet from any fuel dispenser;
 - 25 feet from the nearest side of a public way; and
 - 50 feet from any property line that is or can be built upon, including the opposite side of a public way.

Yes No N/A

TIPS AND HINTS



There may be some flexibility under the regulations to reduce setbacks for the aboveground storage of combustible liquids. Contact your Regional Office for more information.

Gasoline Vapor Recovery

Stage I Vapor Recovery refers to the capture of gasoline vapors during a delivery to a storage tank and the return of those vapors to the tank truck.

Stage II Vapor Recovery refers to the capture of gasoline vapors displaced during vehicle refueling to be returned to the storage tank instead of being lost to the atmosphere.

Self Audit Checklist for Aboveground Storage Tanks

The following questions apply to gasoline being stored in either Underground or Aboveground Storage Tanks.

1. Since deliveries of gasoline are made from a truck with a capacity of more than 4,000 gallons, all underground and aboveground tanks used for the storage of gasoline are equipped with Stage I vapor recovery equipment.

Yes No N/A

Note: Please refer to fact sheet on Stage I Vapor Recovery for additional information.

2. Since more than 400,000 gallons of gasoline per year are pumped at this facility, all underground and aboveground tanks are equipped with Stage II vapor recovery equipment?

Yes

No

N/A

Note: Please refer to the fact sheet on Stage II Vapor Recovery for additional information.

SUMMARY OF IMPORTANT POINTS



- *Register (and obtain a permit for) your UST if required.*
- *Refer to the "O&M Booklet" for help with UST monitoring and recordkeeping requirements.*
- *Obtain a permit from the Division of Fire Safety for your aboveground storage tank (containing flammable or combustible liquids) and observe setback distances.*
- *Read Fact Sheets on Stage I and Stage II gasoline vapor recovery to make sure systems are properly maintained.*



FACT SHEETS

Used Oil.....	FS1
Burning Used Oil Fuel	FS2
Oil Filters	FS3
Oily Wastes	FS4
Managing Automotive Antifreeze	FS5
Aqueous Parts Cleaning.....	FS6
Petroleum-Based Parts Cleaning	FS7
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Waste Motor Vehicle Fuel & System Components.....	FS10
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Managing Waste Fuel & Fuel/Water Mixtures	FS20
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Asbestos Containing Auto Parts	FS22
Scrap Metal, Recycling, and Landfill Disposal Bans	FS23

Used Oil

What is used oil and how is it regulated?

Used oil is defined as any petroleum product refined from crude oil or any synthetic oil that has been used and has been contaminated as a result of that use. Used oil is a free-flowing liquid at standard temperature and pressure and has a flash point greater than 100 degrees (F).

The term “used oil” does not include fuels or solvents but may include:

- ✓ vehicle crankcase oils, transmission fluids and power steering fluids;
- ✓ hydraulic, compressor and straight cutting oils;
- ✓ tramp oil and oil drained from evaporators.

Used oil is regulated under the Used Oil Management Standards of Subchapter 8 of the Vermont Hazardous Waste Management Regulations. Do-it-yourselfers who produce used oil are exempt from the Subchapter 8 standards.

What *can* be done with used oil?

- ✓ Send it off-site to be fuel-blended and burned for energy recovery **or** re-refined for reuse as a lubricant.
- ✓ Reuse it to lubricate chains, tools and other machinery. Don't let it drip on the ground.
- ✓ Burn it on-site in used oil space heating equipment (*refer to the “Burning Used Oil Fuel” fact sheet for more information*), **or** give it away or sell it as fuel.
- ✓ Check with the Solid Waste District in your area to see if they have a collection program for small businesses.

What *cannot* be done with used oil?

- ✓ Used oil cannot be disposed of in a Vermont landfill.
- ✓ Used oil cannot be applied to roads for dust control.
- ✓ Used oil cannot be mixed with a hazardous waste, with the exception that used oil may be mixed with waste that is hazardous only because it exhibits the characteristic of ignitability (e.g. ignitable-only mineral spirits), provided the resultant mixture is not ignitable.

How should used oil be stored?

Used oil must be stored in containers that are:

- ✓ in good condition and made of or lined with compatible material;
- ✓ kept closed except when adding or removing used oil;
- ✓ labeled with the words “Used Oil;”
- ✓ located on an impervious surface (like concrete or asphalt); and
- ✓ within a structure that sheds rain and snow.

Used oil must be stored in above-ground tanks that are:

- ✓ installed and operated in accordance with Vermont Department of Labor and Industry standards;
- ✓ labeled with the words “Used Oil;”
- ✓ managed in a manner so as to prevent a release to the environment; and
- ✓ if located out-doors, equipped with secondary containment capable of holding the contents of the tank

A permit is required to store used oil in an underground storage tank (UST). Contact Vermont's UST Program at (802) 241-3888 for assistance.

Continued ►

How Can Used Oil be Transported?

Used oil generators can self-transport their own used oil without obtaining a transporter permit provided:

- ✓ no more than 55 gallons are transported at any one time;
- ✓ containers meet Department of Transportation standards;
- ✓ used oil is transported in a vehicle owned by the generator or an employee.

To transport more than 55 gallons of used oil at one time, contact the Waste Management Division to obtain either a list of permitted hazardous waste transporters, or a hazardous waste transporter permit application.

What else do I need to know?

Notification: Facilities that generate used oil, but don't generate any hazardous waste and don't accept used oil from off-site, are not required to notify. Most facilities that manage used oil do, however, generate some hazardous waste (e.g., oily sorbent or debris) and therefore must notify the Waste Management Division of its hazardous waste activity using the **Vermont Waste Handler Site ID Form** (available on-line or from the Division). Facilities that accept used oil from off-site must notify as a used oil collection facility.

Hazardous waste generator status: Facilities that generate both used oil and hazardous waste should *not* count the volume of used oil generated when calculating hazardous waste generator status (based on the amount of hazardous waste generated each month). If a business *chooses* to manage used oil as hazardous waste (i.e., under the VT02 hazardous waste code), the business would need to count that waste toward its generator status.

Hazardous waste manifest: A hazardous waste manifest shipping document *is not required* when transporting used oil. If a business *chooses* to ship used oil using a manifest, or if a hired transporter requires the use of a manifest, the used oil should be identified on the manifest using the VT99 code for non-hazardous waste. Finally, if a business *chooses* to manage used oil as hazardous waste (i.e., under the VT02 hazardous waste code), the business would need to ship the used oil using a manifest.

Federal planning requirements: The U.S. EPA requires a Spill Prevention, Control and Countermeasure (SPCC) plan for any facility that has above-ground petroleum storage capacity exceeding 1,320 gallons (*refer to the "SPCC" fact sheet for more information*).

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

Burning Used Oil Fuel

In Vermont, used oil may be burned as fuel provided certain requirements are met. These requirements are found in Subchapter 8 of the Vermont Hazardous Waste Management Regulations (VHWMR), and Section 5-221(2) of the Air Pollution Control Regulations (APCR). While the APCR only cover “waste oil” burning, Subchapter 8 of the VHWMR establishes standards for all aspects of used oil management (i.e., storage, transportation, marketing and burning).

This fact sheet only summarizes the requirements applicable to burning “specification” used oil fuel in “small fuel burning equipment” (i.e., space heating equipment designed specifically for burning used oil fuel), an activity that is exempt from the APCR. Burning used oil fuel in larger equipment, or burning off-specification used oil, is subject to regulation under the APCR and more stringent VHWMR requirements.

This fact sheet also presumes that when used oil fuel is received by a burner from off-site, the oil is shipped in amounts that do not exceed 55 gallons at one time. When used oil is shipped in amounts greater than 55 gallons, more stringent VHWMR requirements apply to the facilities that ship, transport and receive the oil.

General used oil management requirements are summarized in the “Used Oil” fact sheet.

What is specification used oil fuel?

Specification used oil fuel meets the “allowable” constituent and property levels identified in Table 1 of VHWMR Section 7-812.

What is small fuel burning equipment and how is it regulated?

The term “small fuel burning equipment” refers to all used oil burning equipment at a facility when the **maximum operating heat input** for that equipment is equal to or less than 500,000 BTU/hr. Small fuel burning equipment is exempt from the permitting requirements of the Vermont Air Pollution Control Regulations, but still must meet the basic standards described in this fact sheet. Facilities with used oil burning equipment that exceeds the 500,000 BTU/hr heat input threshold may be required to obtain a permit and should contact the Vermont Air Pollution Control Division. For example, a facility operating two used oil burners, each with operating heat input values of 300,000 BTU/hr, may need to obtain a permit because collectively the equipment has a maximum operating heat input value of 600,000 BTU/hr.

Table 1 – Used Oil Fuel Specifications

Constituent / Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash Point	100°F minimum
Total Halogens	1000 ppm maximum
PCBs	< 2 ppm maximum
Net Heat of Combustion	8000 BTU/lb minimum

Burning used oil fuel in this type of space heating equipment is allowed provided:

- Combustion gases are vented to ambient (outdoor) air;
- Stacks are not equipped with devices that would impede the upward discharge of the exhaust gases (i.e., no raincaps);
- No more than one space heater is connected to an above-ground storage tank; and
- The unit is operated with no visible smoke (except as allowed under Section 5-211 of the APCR).

Continued ►

Can any type of used oil be burned in small fuel burning equipment?

The types of used oil that may be burned in small fuel burning equipment are limited to vehicle crankcase and machine gearbox oil. Other types of used oil (e.g., hydraulic fluids, compressor oils, petroleum-based power steering and transmission fluids, metal working fluids) may be burned as fuel only after approval is granted by the Waste Management Division. Approval is based on product information provided on the material safety data sheet (MSDS) and a description of the process generating the used oil.

Does used oil fuel need to be tested for all the Table 1 constituents?

- Business that either burn their own used oil on-site, or burn used oil received from off-site in shipments of less than or equal to 55 gallons:
 - ✓ Must only test the used oil (from each source) for total halogens. A field screening test kit may be used to determine if the 1,000 ppm specification limit is met for total halogens. Contact the Waste Management Division or Environmental Assistance Office for information about field screening test kits and how to obtain them.
 - ✓ If there is reason to believe that any of the remaining Table 1 specifications (i.e., those specifications other than total halogens) would not be met by a volume of used oil, that oil must be tested for the suspected constituents or properties.
- Businesses that receive used oil fuel in shipments greater than 55 gallons:
 - ✓ Must establish that the used oil fuel meets all of the Table 1 specifications; this testing may be conducted by either the burner or the used oil generator.

Note: A 1994 Vermont Agency of Natural Resource study concluded that used oil from vehicle service facilities and “do-it-yourselfer” collection sites frequently meets all Table 1 specifications.

How often do I have to test used oil fuel?

Used oil fuel from a specific source must be tested one time. The oil must be retested only if there is reason to believe that the quality of the oil, or the process generating the oil, has changed such that the Table 1 specifications would not be met. A burner does not need to test used oil fuel received from off-site if the oil has already been tested by the generator (or transporter) and found to meet Table 1 specifications.

Do I need a permit to burn used oil fuel in small fuel burning equipment?

No permit is required to burn specification used oil. However, any business that accepts used oil from off-site, or that generates hazardous waste (e.g., oily sorbent or debris), does need to notify the Waste Management Division of its used oil collection or hazardous waste activity using the **Vermont Hazardous Waste Handler Site ID Form** (available on-line or from the Waste Management Division). Businesses that *only burn used oil generated on-site*, and that do not generate any hazardous waste, are not required to notify.

Continued ►

Can I burn used oil fuel that I don't generate?

Yes. In addition to burning used oil fuel that is generated on-site, burners may accept crankcase and machine gearbox oil from the following sources:

- Do-it-yourselfers (households that generate used oil);
- Off-site facilities that are owned and operated by the burner; or
- Other businesses and municipalities.

What do I need to do if I accept used oil fuel from off-site?

- When used oil fuel is received in shipments of no more than 55 gallons from do-it-yourselfers or other businesses / municipalities, notify the Waste Management Division (using the **Vermont Hazardous Waste Handler Site ID Form**) of status as a "used oil collection facility."
- Facilities that receive used oil in shipments larger than 55 gallons are subject to more stringent "transfer facility" standards (40 CFR § 279.40). Facilities initiating shipments of more than 55 gallons of used oil fuel may be subject to the VHWMR § 7-809 "marketer" standards.
- Maintain records of used oil fuel accepted from other businesses and municipalities documenting:
 - ✓ the quantity of used oil accepted;
 - ✓ specification testing results;
 - ✓ the name, address, telephone number and EPA identification number of any business or municipality from which used oil fuel is accepted; and
 - ✓ the name, address and EPA identification number of the transporter (if applicable).
- These records must be retained for at least three years.
- Store used oil fuel in containers, above-ground tanks, or underground storage tanks as required under Subchapter 8 of the VHWMR (*refer to the "Used Oil" fact sheet for more information*).

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

Oil Filters

How are spent oil filters regulated?

Used oil filters that are generated by businesses are regulated as hazardous waste unless they are managed according to the exemption for metal encased oil filters provided in section 7-203(o) of the Vermont Hazardous Waste Management Regulations (VHWMR). All household-generated wastes, including spent oil filters, are exempt from regulation as hazardous waste under VHWMR section 7-203(a).

What conditions must be met in order for oil filters to be exempt?

While the following conditions must be met in order for business-generated oil filters to be exempt from regulation as hazardous waste, business should also consider implementing the “best management practices” listed on the back of this fact sheet. The exemption requires that:

- ✓ The filters are not terne plated. Terne is a lead/tin alloy that typically is used on filters for heavy duty vehicles. Terne plated filters can be hazardous due to their lead content.

- ✓ The filters are drained using one of the following methods:
 - Puncturing the filter anti-drain back valve or the filter dome end and hot draining*;
 - Hot draining and dismantling;
 - Any other equivalent hot draining method that will remove used oil; or
 - Draining and crushing using a mechanical, pneumatic, or hydraulic device designed for crushing oil filters.

**Hot draining means draining oil filters at temperatures near the operating temperature of an engine.*

- ✓ The filters are not mixed with any hazardous waste (e.g., gasoline or oily absorbents).

- ✓ All drained oils are collected and managed in accordance with the VHWMR.

Where can I send exempt oil filters?

Although exempt oil filters, which in most cases are made of steel, can be disposed of as solid waste, **the DEC strongly encourages businesses and households alike to recycle them as scrap metal**. Check with local scrap yards or contact your solid waste district, planning commission, or municipality for information about recycling opportunities.

Continued ►

Best Management Practices for spent oil filters:

- ⇒ Hot drain filters for at least 12 hours. Filters that immediately drip oil when picked up are not considered drained.
- ⇒ Puncture the dome (top) of the filter, and drain it with the filter threads facing up. This method bypasses the check valves in the filter, ensuring that most of the oil is removed.
- ⇒ Manage the oil drained from filters with other used oil.
- ⇒ Store drained or crushed filters in a closed, leak proof container on an impervious surface.
- ⇒ Recycle properly drained or crushed filters with scrap metals.
- ⇒ Businesses that routinely generate large numbers of oil filters should consider purchasing an oil filter crusher. These devices compress oil filters into “pucks” allowing generators to fit more spent filters into shipping containers, while reducing recycling or disposal costs. If spent filters are being sent for recycling, contact the recycler prior to crushing since some recyclers do not accept crushed filters (e.g., recyclers that separate the metal from filtration media).
- ⇒ If you crush filters, use a crushing area with an impervious surface.

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

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103 South Main Street, Cannery Bldg.
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1-800-974-9559

Oily Wastes

What are Oily Wastes?

Oily wastes represent a broad category of waste materials contaminated with petroleum-based oils. The Vermont Hazardous Waste Management Regulations (VHWMR) stipulate that wastes generated by businesses or municipalities that are greater than 5% by weight petroleum distillates are hazardous wastes identified by the VT02 hazardous waste code. Although some petroleum-containing wastes are regulated under additional hazardous waste codes because they are ignitable or contain contaminants like benzene (i.e., anything contaminated with gasoline), this fact sheet only covers wastes contaminated with oil.

Examples of oily wastes may include used:

- Absorbents like pads and booms;
- Kitty litter and other clay-based absorbent materials;
- Organic, granular absorbents like saw dust, corn cob or peat-based products;
- Floor sweepings;
- Sludge or grit from floor drain troughs;
- Oil-soaked dirt.

Are all oily wastes regulated as hazardous waste?

No. Again, only wastes that contain more than 5% by weight petroleum distillates are regulated under the VT02 waste code. The VHWMR do contain exemptions for some oily wastes so long as certain conditions are met. These “conditional” exemptions are identified later in this fact sheet.

What is the best way to determine if wastes are more than 5% by weight petroleum distillates?

For absorbents, the weight of the uncontaminated material can be compared with its weight after use to see if there has been at least a 5% increase. If the contaminated material is heavier by more than 5%, it is probably hazardous waste (dirt, water and other non-petroleum contaminants can also account for some of the increase). Manufacturers of most oil-absorbing products claim that they will absorb 50% or more of their original weight in oil.

For oil-contaminated liquids, dirt or other debris, a sample can be taken to an environmental laboratory and analyzed for total petroleum hydrocarbons (TPH). Copies of the test results should be kept on file. Analytical testing does not have to be performed again unless the generator (the business or municipality) has reason to suspect that the composition of the waste has changed.

What if contaminated material is less than 5% by weight petroleum distillates?

Oily waste less than or equal to 5% petroleum distillate can be disposed of as regular solid waste in the trash. Contaminated dirt or floor sweepings should never be spread outside to mix with uncontaminated soils.

Wastewater that has picked up small amounts of oil must pass through an oil/water separator (See Fact Sheet on Oil/Water Separators) prior to discharge to a municipal wastewater treatment plant. Oily wastewater should never be discharged to an on-site septic system.

Continued ►

What are oily wastes that are conditionally exempt from the VHWMR?

The following oily wastes greater than 5% by weight petroleum are exempt from regulation as hazardous wastes (and therefore are not considered in determining the generator status of the business) so long as they are managed with conditions stipulated in the VHWMR.

- Oil filters (section 7-203(o)); (See Fact Sheet on Oil Filters.)
- Commercially-Laundered Wipers (section 7-203(w)); (See Fact Sheet on Shop Rags Contaminated with Used Oil or Hazardous Waste.)
- Petroleum-contaminated soil (section 7-203(p)); this exemption is intended for contaminated properties and has many stringent conditions with it.
- All household wastes (section 7-203(a));
- Reusable absorbents (section 7-203(x)); see next question.

Can oil-soaked absorbent material be wrung out and reused?

Yes. The VHWMR provide for the reuse of wring-able pads, booms and other absorbent materials so long as they are processed and reused on site. If contaminated absorbents are stored prior to processing, containers must be:

- ✓ Marked with words that identify the contents (i.e. “oily absorbents for reuse”);
- ✓ Kept closed except to add or remove material;
- ✓ In good condition; and
- ✓ Located on an impervious surface and if kept outside, within a structure that sheds rain and snow.

What about any oil that is recovered?

Free liquid oil that is recovered by the wringing of absorbent material, skimmed from an oil/water separator, or otherwise drained, separated or removed from materials contaminated with oil, may be managed as “used oil” under Subchapter 8 of the VHWMR. See Fact Sheet(s) on Used Oil and Used Oil Burning.

Can oily wastewater be evaporated?

After free oil has been removed, oily wastewater may be evaporated provided:

- ✓ It is non-hazardous OR hazardous waste only because it contains greater than 5% by weight petroleum distillate;
- ✓ The facility has received approval from Vermont’s Air Pollution Control Division to operate evaporation equipment; and
- ✓ Oily residue remaining after evaporation is managed either as “used oil” or as hazardous waste.

Best Management Practices

Identify the circumstances that result in oil reaching the shop floor. Implement a preventive maintenance program to minimize the generation of oily waste. Common techniques include:

- ✓ Using drip pans, funnels, drain trays, etc. to catch and transfer fluids to appropriate containers;
- ✓ Cleaning floors regularly to remove dirt before it has a chance to become contaminated;
- ✓ Avoiding the sweeping of dirt and debris into floor troughs or basins.
- ✓ If a spill does occur, avoid the use of absorbents if possible by collecting liquid oil with a squeegee or oil-only wet-vacuum. Oil can then be managed as “used oil”.
- ✓ Keep a small supply of absorbent material on-site to clean up residual oil that cannot be collected.
- ✓ If it is necessary to use absorbent materials to clean up an oil spill, use reusable pads or booms if possible. Otherwise use absorbent material(s) that has a high absorbency to weight ratio, and use it until saturated.

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

Managing Automotive Antifreeze

What is antifreeze?

Antifreeze is a material that, in automotive applications, is used to protect engines against overheating, freezing in low temperatures, and corrosion. While antifreeze has many other uses and can contain either ethylene glycol or propylene glycol as a primary active ingredient, the antifreeze most commonly used in automobiles contains ethylene glycol and additives that inhibit corrosion.

Ethylene glycol is a toxic material with a sweet taste that is attractive to children and pets. Ingestion of enough ethylene glycol can cause respiratory failure, kidney failure, coma, and even death. Consequently, the proper management of spent ethylene glycol-based antifreeze is particularly important. Propylene glycol is generally not associated with adverse health effects and sometimes is even used as a food additive.

Automotive antifreeze, which is usually diluted with an equal amount of water, breaks down over time, forming acids that can corrode a vehicle's cooling system. During use, antifreeze can also become contaminated with trace amounts of fuel, metals and grit. Consequently, the replacement of spent antifreeze should be part of routine maintenance for all vehicles.

How is spent ethylene glycol-based antifreeze regulated?

Businesses: Due to the toxicity of ethylene glycol and the contaminants introduced through use, spent ethylene glycol-based antifreeze generated by Vermont businesses is regulated as hazardous waste under the Vermont Hazardous Waste Management Regulations (VHWMR). As a hazardous waste, spent ethylene glycol-based antifreeze can **either** be:

- **Managed as hazardous waste** identified by the VT08 hazardous waste code that applies to "waste ethylene glycol and solutions containing greater than 700 parts per million of ethylene glycol;" **or**
- **Recycled** according to the ethylene glycol recycling exemption provided in section 7-204(i) of VHWMR.

Households: Although household-generated wastes are not subject to hazardous waste regulations, it is illegal to release spent antifreeze (or any other waste) onto the ground, or into waterways (e.g., storm drains, ditches, streams, lakes, etc.) or septic systems. In addition, all liquid wastes are banned from landfill disposal in Vermont. Household-generated antifreeze should be managed through the household hazardous waste collection program in your area. Contact your local solid waste management district for information.

What requirements must be met if spent ethylene glycol is managed as hazardous waste?

Although most businesses choose to recycle their antifreeze, the requirements that apply to businesses that manage spent ethylene glycol as hazardous waste depend on the types and total quantity of all hazardous waste that the business generates per month. For more information about hazardous waste management requirements, refer to the "Conditionally Exempt Generator Handbook" which is available on-line at:

http://www.anr.state.vt.us/dec/wastediv/rcra/pubs/ceg_hndbk.pdf

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What conditions must be met to satisfy the ethylene glycol recycling exemption?

In order to be exempt from regulation as hazardous waste, spent ethylene glycol antifreeze must be recycled for reuse either on- or off-site. In addition:

- Prior to recycling, the containers holding the spent antifreeze solutions on-site must:
 - ✓ Remain closed except when adding or removing spent material;
 - ✓ Be in good condition (i.e., no rusting, structural defects, etc.);
 - ✓ Be stored on an impervious surface, within a structure that sheds rain and snow; and
 - ✓ Be marked with words that identify the contents, like: “USED ANTIFREEZE TO BE RECYCLED.”

AND

- Any residue resulting from on-site recycling must be managed as hazardous waste.

Recycling methods include filtration, distillation, and ion exchange. Distillation and ion exchange restore antifreeze to the highest level of purity (for more information on antifreeze recycling technology contact the Environmental Assistance Office).

Is a hazardous waste manifest required to ship spent antifreeze for off-site recycling?

No. A manifest is not required when shipping an exempt waste. Nonetheless, some transporters may still require, for their own purposes, that a manifest be used when shipping antifreeze to an off-site recycling facility. In such cases, the business should use the VT99 waste code to identify the spent antifreeze as exempt (non-taxable) waste.

Is propylene glycol-based antifreeze regulated under the VHWMR?

No. Unless the business has reason to believe that the propylene glycol-based antifreeze has become sufficiently contaminated with metals or fuel as to exceed hazardous waste limits, it is not subject to regulation as hazardous waste.

Best Management Practices

- If the vehicle manufacturer’s warranty allows, substitute less toxic propylene glycol for ethylene glycol, or use recycled antifreeze.
- Test antifreeze for properties such as corrosion inhibition and freeze protection before replacing; only replace antifreeze when necessary.
- Investigate “extended life” antifreeze products. Manufacturers claim that these products last up to five years or 100,000 miles in automobile engines, and up to 300,000 miles in heavy-duty diesel engines (with the addition of an extender).
- Businesses managing spent antifreeze should contract with a commercial recycling service to recycle spent antifreeze on- or off-site.
- Businesses should manage all vehicle fluid wastes (e.g., antifreeze, oil, transmission fluid, gas) separately.

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

Aqueous Parts Cleaning

This fact sheet covers aqueous solutions used in parts cleaning equipment such as enclosed spray washers, sinks and dip tanks to remove oil, grease and other solid materials. A separate fact sheet, "Petroleum-Based Parts Cleaning Solvent," covers parts washers that use solvents such as mineral spirits and naphtha.

What are some of the advantages associated with aqueous parts cleaning?

Aqueous cleaners are water-based solutions that do not contain hazardous volatile organic compounds (VOCs) and, unlike many petroleum-based solvents, are non-flammable. Instead of chemically dissolving oil and grease, they rely on heat, agitation and detergents to remove these contaminants from parts. Aqueous cleaners are less toxic than petroleum-based solvents and therefore are safer for employees to use.

To extend the life of cleaning solutions, the better aqueous systems are designed to remove oils and solids using skimmers and filters. In fact, cleaning solutions can last indefinitely if they are properly maintained. In all cases though, it is necessary to periodically add water and detergent formulations due to loss through evaporation, filtration and by being carried out on parts.

What is a microbial cleaner?

These are aqueous cleaning solutions typically used in conjunction with parts cleaning sinks that extend cleaner life by relying on microscopic organisms to consume oil, grease and other organic contaminants. Like other aqueous cleaning solutions, they perform best when heated. Solids need to be removed through filtration or other means and equipment manufacturers offer various recommendations for doing this.

How is spent aqueous parts cleaning solution regulated?

Because spent aqueous solution is likely contaminated with oil, grease and possibly metals like lead or chromium, there are environmental concerns associated with its disposal. Depending on the level of contamination, spent aqueous solutions may be regulated as hazardous waste. If approved for discharge, such solutions must be managed according to Vermont wastewater requirements.

What are the basic wastewater requirements?

Spent aqueous cleaning solutions that are non-hazardous may be discharged to a municipal wastewater treatment plant provided the business has received permission from both the municipality (treatment plant operator or other official) and the Department of Environmental Conservation's Wastewater Management Division. Be prepared to inform the plant operator about the volume of spent solution to be discharged, the pH and the contaminants likely to be present. If testing is necessary, take a sample of the wastewater near the end of its useful life.

Aqueous cleaning solutions should never be discharged to an on-site septic system since contaminants of concern are not treated in the soil environment and can result in groundwater contamination.

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How are oils and solids removed from parts washers regulated?

Oils that are skimmed, filtered or otherwise removed from aqueous parts washers are subject to regulation either as “used oil” (refer to the “Used Oil” fact sheet for more information) or as hazardous waste under the Vermont Hazardous Waste Management Regulations. Oil that is managed as hazardous waste is identified by the VT02 hazardous waste code (i.e., wastes containing greater than 5% petroleum distillate).

Sediment and other solid materials that are removed from aqueous parts washers are regulated as solid or hazardous waste. Although these wastes generally do not meet hazardous waste criteria, any business generating this material is responsible for making a determination, based either on laboratory testing or his or her knowledge of the material (refer to the “Making a Hazardous Waste Determination” fact sheet for more information). Non-hazardous solids may be disposed of in the regular trash.

What contaminants should be tested for?

If a business decides that laboratory testing is necessary, it should only test for those contaminants likely to be present in the waste in order to keep the cost down. A “total metals” analysis can be used to screen for the specific metals of concern (i.e. lead, chromium or other regulated metal), and a “total petroleum hydrocarbon” (TPH) test can be used to determine the concentration of oil in the spent material. Samples of aqueous cleaning solutions to be sent for laboratory analysis should be taken near the end of the solution’s useful life. Call Hazardous Waste Program staff (241-3888) or the non-regulatory Environmental Assistance Office (800-974-9559) for help in deciding what to test for and how to interpret results.

Can wastewater be evaporated?

Wastewater from an aqueous parts cleaning system may be evaporated provided:

- ✓ It is non-hazardous OR hazardous waste only because it contains greater than 5% by weight petroleum distillate material;
- ✓ Evaporation equipment has been approved by Vermont’s Air Pollution Control Division (this is generally straight-forward and does not require a permit for pre-engineered systems); and
- ✓ Oily residue remaining after evaporation is managed either as “used oil” or as hazardous waste.

Best Management Practices

- Install cleaning equipment that uses water efficiently or is capable of recycling water.
- Remove heavy soils from parts with a scraper or rag before aqueous cleaning to reduce cleaning time, water usage, and the amount of contamination introduced into the cleaning solution.
- Conduct cleaning operations on an impervious surface.

For more information contact:

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103 South Main Street, West Bldg.
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802-241-3888

VTDEC-Environmental Assistance Office
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1-800-974-9559

Petroleum-Based Parts Cleaning

This fact sheet covers parts washers that use petroleum-based solvents such as mineral spirits and naphtha to clean oil and grease from metal and other non-porous parts. Petroleum-based solvents, like other petroleum products (e.g. gasoline, fuel oil), are derived from crude oil and have environmental, health and safety concerns associated with them. Solvent cleaning performed in vapor degreasing units is not addressed here, nor is aqueous parts cleaning, which is the subject of a separate fact sheet.

How is petroleum-based parts cleaning regulated?

Petroleum-based parts cleaning solvents are subject to regulation under both the Vermont Hazardous Waste Management Regulations (VHWMR), which affect the proper management and disposition of spent solvent, and section 5-253.14 of Vermont's Air Pollution Control Regulations, which establishes operating standards for minimizing the release of volatile organic compounds (VOCs) during use.

Why is spent petroleum-based solvent a hazardous waste?

Under the VHWMR, spent petroleum-based solvents are regulated as hazardous waste because they contain greater than 5% by weight of petroleum distillate, and are identified by the VT02 hazardous waste code. These solvents can further qualify as hazardous waste if they have either a flash point less than 140° F and thus exhibit the characteristic of ignitability (identified by the D001 waste code), or if they become contaminated with certain toxic constituents during use.

In most cases, if the solvent is not ignitable at the time of purchase, it is unlikely that it will become ignitable through use. Conversely, parts cleaning solvent can easily become contaminated through use with toxic metals like chromium or lead (from parts) or even very small amounts of other solvents such as trichloroethylene or methyl ethyl ketone. Since these contaminants can cause spent petroleum-based solvent to be more strictly regulated, it is important to use parts washers carefully. In particular, avoid using cleaning (and other spray) products that contain regulated solvents over parts washing sinks or in a way that allows them to mix with the parts washing solvent.

In all cases, it is up to the generator to make a "determination" whether spent parts cleaning solvent is a hazardous waste based on testing, generator knowledge or a combination of the two. For more information about making a hazardous waste determination (and other requirements), refer to the "Conditionally Exempt Generator Handbook" available by calling 802-241-3888 or 1-800-974-9559, or by visiting: <http://www.anr.state.vt.us/dec/wastediv/pubs.htm> .

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What if a parts washer is serviced by an outside contractor?

Many businesses choose to lease parts washers from an outside contractor who periodically replaces spent solvent with fresh solvent. The extent to which the VHWMR apply to the spent solvent depends on how the contractor manages the spent solvent after pick-up. Solvent that is used directly as an ingredient in an industrial process to make a product (i.e. without first processing or reclaiming the solvent) is exempt from regulation as a hazardous waste under section 7-204(a) of the VHWMR. In this case, the solvent does not count towards the total quantity of hazardous waste generated on-site.

Alternatively, in cases where the contractor either sends the spent solvent for fuel-blending, or must first reclaim the solvent before reusing it, the spent solvent is regulated as hazardous waste and the business using the parts washer is considered the generator of that waste. As with any hazardous waste, the weight of spent solvent must be counted toward the total quantity of hazardous waste generated by the business for the purpose of determining generator status. Also, it is important to note that even if the contractor completes the required documentation for shipping and tracking the waste, the business using the parts washer is still considered the generator.

What if my parts washer is equipped with a filter to extend solvent life?

Although the use of filters to extend solvent life in a parts washer is considered a best management practice, spent filters and sediment are likely to be hazardous waste for the same reasons as spent solvent. As such, unless a generator determines otherwise, spent filters (and sediments) are assumed to be hazardous waste and must be stored in properly labeled containers that are kept covered to prevent solvent from evaporating. Even in situations where spent solvent is being reused directly, (and is therefore exempt under section 7-204(a) as explained above), spent filters are assumed to be hazardous waste

Can spent petroleum-based solvent be mixed with used oil and burned in approved equipment?

Spent petroleum-based solvent that is hazardous waste only because it is ignitable (and because it contains petroleum distillates) may be mixed with used oil provided the resulting mixture is not ignitable. Such mixtures may be burned in approved space heating equipment provided all standards applicable to on-site used oil fuel burning are satisfied. See the "Burning Used Oil Fuel" fact sheet for more information. It is important to realize, however, that even though spent petroleum-based parts cleaning solvent can be mixed with used oil, spent solvent by itself does not meet the definition of "used oil" and therefore cannot be managed under the Used Oil Management Standards of Subchapter 8 of the VHWMR.

What are terpene solvents?

Terpenes are organic solvents derived from natural sources such as pine trees and citrus fruit that generally have strong characteristic odors. Although terpenes are considered less toxic to use than petroleum-based solvents, they are comprised of volatile organic compounds and consequently can exhibit the hazardous waste characteristic of ignitability. Spent terpene solvents may also be subject to further regulation as a result of contaminants introduced during use.

What requirements govern parts washers during use?

Vermont's Air Pollution Control Regulations require that the following standards be met to minimize emissions of volatile organic compounds from parts cleaning operations:

- ✓ Parts cleaning units must have a cover and the cover must be kept closed except when parts are being cleaned.
- ✓ If the parts washer is designed to spray solvent, the pressure of the spray cannot exceed 10 psi.
- ✓ Only parts that are non-porous and non-absorbent can be washed.
- ✓ Any leaks from a parts washer must be repaired.
- ✓ Cleaned parts must be drained until dripping stops.

Best Management Practices

- Wipe off parts with a rag or wire brush before washing with solvent.
- Drip racks or trays that route solvent back into the parts washer can help increase drainage from parts (and minimize solvent loss).
- Carefully review Material Safety Data Sheets to avoid using hazardous materials as much as possible – spent solvent with a flash point greater than 140° F is not an ignitable hazardous waste.
- Keep accurate records of solvent purchases and the disposal of spent solvent and filters.
- Never use aerosol spray cleaners over a parts washer as those cleaners can introduce new solvents that can cause the parts washing solvent to be more strictly regulated.
- Use filters to extend solvent life.
- Consider a safer alternative like a terpene or water-based (aqueous) cleaner. See fact sheet on “Aqueous Parts Cleaning”.

For more information contact:

VTDEC-Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

VTDEC-Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

Shop Rags Contaminated with Used Oil or Hazardous Waste

This fact sheet covers management options for Vermont businesses that handle shop rags contaminated with used oil or hazardous wastes such as spent solvent and ink. Shop rags (also called wipes, wipers, or towels) generally fall into two categories: rags that are intended for reuse and made of woven cotton or a polyester blend, and disposable (non-woven) rags made of wood pulp or a polyester blend. This fact sheet describes the conditions that must be met in order for reusable shop rags to be considered exempt from regulation under the Vermont Hazardous Waste Management Regulations (VHWMR), and when contaminated rags that are to be disposed of are subject to full regulation as hazardous waste.

When are contaminated shop rags considered exempt from regulation as hazardous waste?

Contaminated shop rags are considered exempt from regulation as hazardous waste provided:

1. The rags are picked up and cleaned under a contractual agreement with a commercial laundry service.
2. Hazardous waste is not intentionally added to (i.e., poured onto) the rags beyond what is picked up through normal use of the rag, and no free liquid is present in the rags (i.e. no liquid can be wrung from the rags).
3. Prior to being picked up by a laundry service, the rags are accumulated and stored on-site in containers that are:
 - Marked with words that identify the contents, such as “Used Rags for Laundering;”
 - Kept closed except to add or remove contaminated rags (if laundry bags are used, they must be kept inside a closed container);
 - In good condition (i.e. no apparent structural defects); and
 - Stored on an impervious surface, and if stored out-of-doors, within a structure that sheds rain and snow.
4. The laundering facility manages:
 - Wastes from laundering contaminated rags in accordance with local, state and federal regulations; and
 - Wastewater in accordance with local, state and federal wastewater discharge requirements.

It is a good idea to ask the laundry service to provide written verification that they hold all applicable permits and are in good standing with the municipal wastewater treatment facility in the town in which they operate.

Since shop rags that are managed according to the conditions described above are considered to be exempt from regulation as hazardous waste, they do not have to be counted toward your facility's monthly hazardous waste generation rate, or shipped using a manifest. You should be aware, however, that the U.S. Environmental Protection Agency is in the process of developing a rule for shop rags that, if adopted, could supersede this policy.

Can I self-launder contaminated shop rags at my own facility?

No. In order to be considered exempt from regulation as hazardous waste, contaminated rags must be picked up and laundered by a commercial laundry service. By self-laundering contaminated shop rags, you could inadvertently contaminate groundwater.

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Can I allow hazardous waste to evaporate from contaminated shop rags?

No. The evaporation of hazardous waste is specifically prohibited under Section 7-302(a) of the VHWMR. Once shop rags are no longer usable, they must be placed in a marked container and managed according to the requirements described in this fact sheet.

How do I manage shop rags that I intend to dispose of?

Any shop rags that are destined for disposal and that are:

- Contaminated with a “listed” hazardous waste (for example, rags that contain greater than 5% by weight of petroleum distillates, or any amount of an “F-listed” solvent); and/or
- Exhibit a hazardous “characteristic”

must be managed as hazardous waste according to the requirements of the VHWMR. For more information about listed hazardous wastes, the hazardous waste characteristics, and basic hazardous waste management requirements, please refer to the Conditionally Exempt Generator Handbook, which is available on-line at:

<http://www.anr.state.vt.us/dec/wastediv/rcra/pubs.htm>

Shop rags that are not contaminated with hazardous waste and do not exhibit a hazardous waste characteristic may be disposed of in the regular trash.

What else should I know about managing shop rags?

Reusable shop rags contaminated with an ignitable material must be stored in a closed metal container according to Vermont Occupational Safety & Health Act (VOSHA) requirements. For information regarding VOSHA requirements, you may contact the Vermont Department of Labor at (802) 828-2765 or VOSHA’s non-regulatory assistance program, Project WorkSafe, at 1-888-723-3937.

What are some best management practices?

- Store containers holding contaminated shop rags away from ignition sources.
- Avoid saturating rags such that they can not be laundered.
- Use drip pans, funnels, drain trays, etc. to prevent oil and other fluids from reaching the shop floor, thus eliminating the need for clean-up.
- Improve housekeeping and preventative maintenance practices to minimize need for clean-up. Identify circumstances that routinely require the clean-up of fluids, and develop a spill prevention plan that identifies measures to address each of circumstances. Involve facility workers in the planning process – they know how and why spills happen.
- Remove excess solvent or oil from rags before laundering by wringing them with a mechanical device, and then recycle the collected fluids.
- When a spill is more than just a drip, clean the fluids up with a wet-vac or squeegee and dust pan, and then recycle the collected fluids.

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

Hazardous Material Spill Response

Who should read this fact sheet?

This fact sheet applies to any Vermont business or municipality that handles hazardous material (including hazardous waste, petroleum products, or CERCLA hazardous substances*), and consequently may need to respond to a release of hazardous material (spill) to the environment. It summarizes the spill response requirements included under Section 7-105 in the Vermont Hazardous Waste Management Regulations (VHWMR) and describes response procedures for spills that occur at fixed facilities and during transportation.

How do I respond to a spill at a fixed facility?

1. Assess the Hazard and Perform Initial Response (if appropriate)

For spills that can be safely managed without assistance:

- Stop the spill at its source;
- Prevent spilled material from entering storm drains, waterways, drainage ditches, etc; and
- Contain spilled material using a barrier (absorbent pads or socks), temporary dike or trench.

For all other spills, a cleanup contractor will likely need to be hired since they have the training and equipment necessary to safely respond to dangerous hazardous material spills. A list of spill cleanup contractors that operate in Vermont is maintained on-line at

http://www.anr.state.vt.us/dec/wastediv/spills/spills_program.htm

2. Report the Spill

Any hazardous material spill to the land or water that meets the following criteria must be immediately reported to the Department of Environmental Conservation (DEC) Spill Response Team (spill team) by calling the **24-hour Hazardous Materials Spills Hotline at 1-800-641-5005**. *If there is any question about whether a spill is reportable, call.*

- A spill of 2 gallons or more;
- A spill that is less than 2 gallons, but poses a threat to human health or the environment (for example, a gallon of gasoline spilled to a wetland); or
- A spill that exceeds a CERCLA reportable quantity*.

Any person who has knowledge of a spill and who may be subject to liability for that spill, is responsible for reporting the spill. In addition to reporting to the DEC, any spill of hazardous material that impacts (or threatens) surface water (e.g., lakes, streams, wetlands) must also be reported to the U.S. Coast Guard via the National Response Center at **1-800-424-8802**.

3. Clean up and Follow up

Any business or municipality who may be responsible for a spill must:

- Ensure that the spill is cleaned up to the extent that it no longer presents a threat to human health or the environment;
- Make a hazardous waste determination for all spill cleanup materials;
- Ensure that contaminated soil/water/debris is collected and managed appropriately; and
- **For any reportable spill, submit a written follow-up report within 10 days detailing how the spill was cleaned up and how waste was managed.**

* CERCLA Reportable quantities of hazardous substances are listed in 40 CFR Section 302.4

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What happens when a spill is reported to the DEC?

When a spill is reported to the DEC, a spill team member will determine if on-site assistance is necessary to assess environmental impact and/or oversee cleanup efforts. While on the phone, the spill team member can provide assistance related to spill containment and cleanup, and the proper management of cleanup materials. The DEC's spill team can also assist with obtaining information about spilled materials, contacting other individuals with potential cleanup obligations, and, if needed, hiring a cleanup contractor.

It is important to report spills immediately so that the DEC can quickly assess the potential for environmental impact, and coordinate outside assistance as necessary. A delay in reporting can result in greater environmental impact and a more complicated and costly cleanup.

What happens when a hazardous material spill occurs during transportation?

Although the primary obligation of reporting and cleaning-up a hazardous materials spill that occurs during transportation lies with the owner or operator of the vehicle from which the material has been released, transportation related spills usually are reported to the DEC by the emergency responder (fire chief or police officer) who first arrives at the spill scene.

While transportation-related spills are subject to the same reporting requirements as those that occur at fixed facilities, any transportation-related spill that meets the criteria of a "Reportable Incident" specified in Section 171.15 of 49 CFR (the federal Department of Transportation regulations) must also be reported to the National Response Center at 1-800-424-8802. Examples of Reportable Incidents include a death or injury requiring hospitalization; closure of a major transportation artery or facility for more than one hour; and evacuation of the general public for more than one hour.

An incident commander (in most cases, the local fire chief) is usually designated to oversee the spill response effort in consultation with the DEC spill team. The responsible party(ies) may also be involved in the cleanup depending on their willingness and/or ability. Follow-up to the initial spill response is generally coordinated between the DEC's spill team and the responsible party(ies).

What are some best management practices for spill prevention and emergency preparedness?

- ✓ Develop a spill prevention plan; involve employees as they know how and why spills occur.
- ✓ When transferring liquids, use drip trays, funnels or other means to avoid spills.
- ✓ Use spring-loaded drum covers, valves or other positive shut-off devices.
- ✓ Keep all containers closed when not adding or removing material.
- ✓ Store all containers on an impervious surface (concrete) that is protected from weather.
- ✓ Instruct employees in spill response procedures. Cover basic safety precautions like:
 - Minimize contact with or walking in spilled material
 - Minimize inhalation of any gases, vapors or smoke that result from a spill
 - Promptly wash any skin that comes in contact with spilled material
- ✓ Post a list of emergency numbers next to the phone.
- ✓ Maintain spill control and containment equipment in a designated area.

For more information contact:

VTDEC-Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

VTDEC-Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

For general program questions, contact Marc Roy, DEC Spills Section Chief at 802-241-3874

Waste Motor Vehicle Fuel and System Components

This fact sheet covers management options for businesses that handle gasoline and diesel fuel removed from motor vehicles and waste fuel system components such as tanks, lines and filters. Fuel that can be reused as fuel is not considered a hazardous waste. Contaminated fuel that cannot be reused as fuel is regulated under the Vermont Hazardous Waste Management Regulations (VHWMR) as discussed below.

What can I do with uncontaminated fuel that has been removed from a motor vehicle?

Uncontaminated fuel should be returned to the vehicle from which it was removed or otherwise used as motor fuel whenever possible. Fuel that is stored temporarily should be stored in a container that is:

- ✓ in good condition and compatible with the fuel;
- ✓ clearly labeled to identify its contents;
- ✓ kept closed and located on an impervious surface, away from floor drains; and
- ✓ grounded, if necessary.

How do I manage contaminated fuel?

Contaminated *gasoline* that cannot be reused as fuel is regulated as hazardous waste because it is ignitable (i.e., has a flash point less than 140 degrees F) (hazardous waste code D001) and contains toxic constituents such as benzene (hazardous waste code D018).

Contaminated *diesel* fuel may be:

- Used as a lesser grade fuel to be burned for energy recovery; or
- Managed as “used oil” (refer to the “Used Oil” fact sheet for more information on used oil management standards); or
- Mixed with used oil provided the resulting mixture is not ignitable; or
- Managed as hazardous waste.

What else should I know about managing contaminated fuel?

- **Do not mix waste gasoline with used oil.** Gasoline contains benzene and other toxic constituents that can easily cause used oil to become regulated as hazardous waste.
- **Do not allow waste fuel to evaporate.** The evaporation of waste fuel not only introduces harmful vapors into the air, but also is considered illegal disposal of a hazardous waste.
- **Used absorbent materials (e.g., pads, granular products) generally must be managed as a hazardous waste** and cannot be discarded with solid waste. See the “Oily Wastes” fact sheet for more information.

Continued ►

How should waste fuel filters (and other components) be managed?

Fuel filters: Due to the fact that the filter media within fuel filters typically retains residual fuel after draining, used filters may be considered hazardous waste. Because section 7-204(e) of the VHWMR provides an exemption for scrap metal that is recycled, metal filters that have been drained are not regulated as hazardous waste so long as they are recycled as scrap. Metal-encased fuel filters that are not recycled as scrap metal must be managed as hazardous waste. Since there is no such exemption for plastic fuel filters, they must be managed as hazardous waste.

Used fuel system components that are to be discarded, such as fuel lines and tanks, must be drained of fuel. Metal components may be managed as scrap metal. Non-metal components that have been drained, with the exception of fuel filters or other absorbent components, may be managed as non-hazardous waste.

What are some best management practices?

- ✓ Always store flammable materials away from ignition sources such as stoves and welding equipment.
- ✓ Use drip pans to minimize the need for absorbents.
- ✓ If fuel must be removed from a vehicle, collect it in a manner to ensure that it is not contaminated.

For more information contact:

Vermont Department of Environmental Conservation:

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Lead-Acid Batteries

What are Lead-Acid Batteries and why are they of concern?

Lead-acid batteries, which are commonly used in motor vehicles, forklifts, golf carts, garden tractors, and wheelchairs, utilize a sulfuric acid electrolyte solution to convert potential chemical energy to electrical energy. A typical automobile battery contains 18-20 pounds of lead (plates) and 11 pounds of sulfuric acid, and if handled improperly, poses hazards to human health and the environment. Lead is a toxic substance that can contaminate soil and water, while sulfuric acid is corrosive and can cause severe bodily injury upon contact. Lead-acid batteries also present a fire and explosion hazard.

How are Lead-Acid Batteries regulated?

Spent lead-acid batteries that are generated by businesses are regulated as hazardous waste unless they are managed:

- 1) According to the recycling exemption (discussed below) provided in section 7-204(f) of the Vermont Hazardous Waste Management Regulations (VHWMR); OR
- 2) As universal waste by following the standards outlined in Subchapter 9 of the VHWMR and Part 273 of the Code of Federal Regulations Title 40 (refer to the "Universal Waste" fact sheet for more information about this option).

In Vermont, most businesses manage lead-acid batteries under the recycling exemption because state law requires retailers to accept spent lead-acid batteries in return for those that they sell. The law also requires that collected batteries be recycled. Retailers can usually send spent batteries for recycling using the same company that delivers new batteries.

Although household wastes are exempt from the VHWMR, all spent lead-acid batteries, including those generated by households, are *banned from landfill disposal* and should be recycled through a solid waste district or battery retailer.

What conditions must be met to satisfy the recycling exemption?

Spent lead-acid batteries are exempt from regulation as hazardous waste provided:

- ✓ Businesses that generate or collect the batteries store them under cover and on an impervious surface;
- ✓ The batteries are transported in accordance with Department of Transportation requirements (49 CFR 171-177 specifies regulations for packaging, shipping, labeling, and placarding); and
- ✓ The batteries are recycled.

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Best Management Practices

- ✓ Avoid stockpiling spent lead-acid batteries.
- ✓ Check batteries for leaks and cracks prior to storing.
- ✓ Store batteries upright to prevent acid leaks through vent holes.
- ✓ Keep spent batteries from freezing to avoid cracking their cases.
- ✓ Place cracked or leaking batteries in a closed, watertight, acid-resistant storage container such as a five-gallon plastic (polyethylene) pail or bin.
- ✓ Store waste battery electrolyte as a corrosive hazardous waste in a compatible container.
- ✓ Keep a neutralizing agent, such as baking soda, lime or bicarbonate soda nearby in case acid leaks or spills.
- ✓ Place same-size batteries on pallets and separate layers with a shock-absorbing material.
- ✓ Stack batteries in layers no more than five high, with the pole side of each battery facing toward the outside of the stack to maximize stability.
- ✓ When handling batteries, always wear safety equipment (e.g., gloves, apron, and eye protection) to prevent contact with corrosive materials (sulfuric acid).

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Laundry Bldg.
Waterbury VT 05671-0411
1-800-974-9559

Universal Waste

Universal wastes are wastes that meet hazardous waste criteria but, because they pose a relatively low-risk compared to other hazardous wastes and are generated by a wide variety and large number of businesses, are exempt from regulation as hazardous waste.

Although universal wastes are exempt from the hazardous waste regulations of Subchapters 1 through 7 of the Vermont Hazardous Waste Management Regulations (VHWMR), they still must be managed according to the Subchapter 9 Universal Waste Management Standards. Wastes that can be managed as universal waste in Vermont include: **batteries, certain pesticides, mercury thermostats, PCB-containing fluorescent light ballasts, lamps** (e.g., fluorescent bulbs), **mercury-containing devices** (e.g., mercury switches), and **cathode ray tubes** (e.g., color computer monitors and TV screens).

In general, the Universal Waste Management Standards include requirements that apply to small and large quantity “handlers” of universal waste (including specific management standards for each category of universal waste), “universal waste transporters,” and “destination facilities.” However, since the vast majority of the Vermont businesses that manage universal waste fall into the “small quantity handler” category, this fact sheet focuses primarily on those requirements.

What is a Small Quantity Handler?

A “**universal waste handler**” is defined as:

- 1) *A generator of universal waste; or*
- 2) *The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.*

A “**small quantity handler**” is defined as:

A universal waste handler who does not accumulate 5,000 kilograms (11,000 pounds) or more total of universal waste other than CRTs (batteries, pesticides, thermostats, ballasts, lamps, or mercury-containing devices, calculated collectively), and who does not accumulate 36,288 kilograms (40 tons) or more of CRTs, at any time.

Continued ►

What does a Small Quantity Handler need to comply with?

Although **each category of universal waste has unique waste management requirements** (individual fact sheets are available for lamps, mercury-containing devices and CRTs), small quantity handlers must manage all universal wastes according to the following general requirements:

- Manage universal wastes in a way that prevents breakage and releases to the environment.
- Keep containers of universal waste closed.
- Immediately contain and transfer any universal wastes that show evidence of leakage or damage to an appropriate container.
- Meet waste-specific container or packaging requirements.
- Label or mark the universal waste (or container holding the universal waste) to indicate that it is a waste or universal waste. For example, universal waste lamps should be marked as “Universal Waste Lamps,” “Waste Lamps,” or “Used Lamps.”
- Accumulate universal waste for no longer than one year (a handler must be able to demonstrate the length of time that a universal waste has been accumulated from the date it became a waste or is received).
- Ensure that employees handling universal waste are familiar with proper handling and emergency procedures, relative to their responsibilities.
- In the event of a release of universal waste, comply with the emergency actions and reporting requirements of VHWMR Section 7-105(a), and determine if any material resulting from the release is hazardous waste.

Where can Small Quantity Handlers bring Universal Waste?

Small quantity handlers can bring their universal wastes to another universal waste handler or a destination facility (which, in general, is defined as *a facility that treats, disposes of, or recycles a particular category of universal waste*). Small quantity handlers may also send universal waste to a foreign destination provided the specific export requirements of VHWMR Section 7-912(k) are met.

Who can Transport Universal Waste?

Small quantity handlers can either self-transport their own universal waste or hire a commercial transporter. Anyone that transports universal waste must comply with applicable Department of Transportation (DOT) requirements and, if using a vehicle with a gross vehicle weight greater than one ton, with the solid waste permit requirements of 10 V.S.A. § 6607a. No hazardous waste manifest shipping document is required for the transport of universal waste.

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Laundry Bldg
Waterbury VT 05671-0411
1-800-974-9559

Mercury Containing Lamps & Auto Switches

What are the concerns about mercury?

Mercury is a highly toxic heavy metal that is released into the environment when mercury-containing lamps and switches are broken or thrown in the trash. Although lamps and switches contain a relatively small amount of mercury, the high volume of spent lamps (and to a lesser degree switches) generated in Vermont each year contributes to mercury contamination, particularly in fish and wildlife. State and federal fish advisories restrict consumption of certain freshwater and marine fish (see: www.mercvt.org).

What kinds of lamps contain mercury?

Fluorescent lamps (linear and compact fluorescent) and high intensity discharge (HID) lamps contain mercury. HID is a term used to describe mercury vapor, metal halide, and high pressure sodium lamps.

How are mercury-containing lamps regulated?

Spent lamps, whether generated by businesses or households, cannot by law be disposed in the trash, and if possible, should be recycled. Spent lamps generated by businesses and institutions are subject to Universal Waste Management Standards contained in the Vermont Hazardous Waste Management Regulations ([Subchapter 9](#)). See the fact sheet on [Universal Waste](#) for more information.

What are the options for recycling mercury-containing lamps?

The following recycling options are available to homeowners and businesses:

- Contact your local solid waste district or municipality for information about the availability of nearby collection sites or household hazardous waste collection events. Some hardware stores or other retailers may offer collection programs.
- Some electrical wholesale suppliers accept lamps from their customers for recycling.
- Businesses that already use a permitted hazardous waste transporter to pick up hazardous wastes may be able to ship spent lamps using that same transporter.
- Lamp recycling facilities (out-of-state) have pick-up and mail-back programs for spent lamps.

Check www.mercvt.org for more recycling information.

Are there special storage requirements for businesses?

Yes. Under the Universal Waste Management Standards, businesses are required to package lamps in structurally sound containers (boxes) that prevent breakage. Boxes or containers must be:

- Kept closed and sealed with tape once full (Do not tape lamps together);
- Labeled with words like “Universal Waste Lamps” or “Waste Lamps;”
- Stacked no higher than five feet; and
- Transported to an approved collection center within one year unless additional time is necessary to accumulate enough lamps for shipment. Businesses may self-transport lamps without a manifest.

Can the so-called “green tip” or low mercury lamps be disposed in the trash?

No. Even though some manufacturers now make lamps that are low in mercury, these lamps are also prohibited from disposal as solid waste in Vermont.

Is crushing an acceptable method of managing spent lamps?

No. Vermont regulations prohibit the intentional breaking or crushing of mercury-containing lamps since studies have shown that even enclosed crushing devices designed specifically for lamps release a significant amount of mercury vapor. Although lamp crushing devices are commercially available for the purpose of increasing lamp storage space (decreasing lamp volume), the use of such devices is prohibited without full certification under the VHWMR. Lamps that are intentionally broken must be managed as hazardous waste.

What if a lamp accidentally breaks?

As is the case when managing any fragile waste, lamps will occasionally break when handling and/or storing them. The waste material generated through this “*incidental breakage*” of lamps can be managed as universal waste provided it is cleaned up immediately and placed in a sealed container. In addition, any lamps that show evidence of breakage must also be placed in a sealed container for continued management as universal waste. Containers that are used to store broken or damaged lamps must be kept closed (except when adding waste), structurally sound, compatible with the lamps (i.e., a metal or plastic container), and must lack evidence of leakage, spillage or damage. Containers used to store broken or damaged lamps must also be labeled to identify their contents as universal waste lamps and to indicate that the lamps are broken. Broken or damaged lamps may be shipped to a destination facility along with containers of intact universal waste lamps.

If a lamp is broken after being placed in a shipping container (e.g., box, drum, etc), the lamp should be left in the shipping container, and the container should be sealed immediately.

These are additional clean-up suggestions.

- ✓ Keep all people and pets away from the breakage area to prevent mercury powder from being tracked into other areas.
- ✓ Keep the area well ventilated.
- ✓ Assemble the necessary supplies (latex gloves, tweezers, adhesive tape, and a puncture-resistant container) before cleaning up.
- ✓ Using the latex gloves, carefully pick up any broken glass and place it in container. It may be necessary to use the tweezers and adhesive tape to pick up any small pieces of glass and powdery residue remaining on the spill surface. **DO NOT VACUUM.**
- ✓ After clean-up is complete, place any other material that came in contact with the mercury powder into the container.
- ✓ Contact your municipality, Solid Waste District, or this office for disposal options.

Mercury-Containing Auto Switches

Many vehicles (model year 2002 and older) contain mercury tilt switches in trunk and hood convenience light assemblies. The mercury tilt switch is a small metallic pellet in the light assembly and it contains liquid mercury.

If you replace or discard an old trunk or hood convenience light assembly, you can tell if mercury is present in the tilt switch (pellet) by shaking it. You will hear the liquid in the pellet. If it does not contain mercury, you will hear the metallic ball bearing inside. Mercury-containing switches are a universal waste - see Universal Waste Fact Sheet.

Some anti-lock brake G-Force sensors contain several embedded mercury switches. ABS sensors were used in Jeeps of all types, Ford Explorers and Broncos, and 1990-1996 Subarus (Legacy and Impreza AWD with 5MT). These mercury-containing sensors are less common than convenience lights with mercury. Any old or replaced sensors in these vehicles should be handled as Universal Waste.

Oil / Water Separators

What is an oil / water separator?

Oil/water separators are underground vaults, usually constructed of concrete, installed between a drain or drain network and the connecting sewer pipe. These vaults are designed with baffles to trap sediment(s) and retain floating oils and grease, while allowing water to discharge. The large capacity of these separator systems slows discharge water allowing oil to float to the surface and solid material to settle to the bottom.

Who typically needs an oil / water separator?

Any business or facility that frequently discharges oily or sediment-laden wastewater to a sewer system should install a separator system. Many local sewer ordinances require an oil/water separator for certain activities such as commercial car washes, vehicle service facilities with floor drains or facilities with a vehicle washing bay. Check with your local town office or contact your wastewater treatment plant operator to see if your town has such a requirement.

What is required before an oil / water separator is installed?

You should check with your local town office to better understand any local sewer ordinances or requirements that may apply. Before a separator system is installed in an existing facility you need to contact the Department of Environmental Conservation's regional office serving the area in which your facility is located. In some cases an existing facility may need a permit, and in some cases it may not. A separator being installed in a new facility will require a wastewater permit prior to installation. See the regional office map for the VT DEC to which office serves your town. Plumbing supply contractors or wastewater engineers can be helpful in choosing a separator that is appropriately sized for your facility. Contact your local permit specialist if you have questions about permit requirements for any wastewater activity.

How do I know when it needs to be maintained or cleaned?

Just because an oil/water separator is still draining, it may not be functioning at its full efficiency. Like any filtration system, an oil/water separator needs to be maintained and cleaned on a regular basis. The efficiency of a separator system is most affected by settled solids or sludge on the bottom of the separator, and by oils floating on the water surface. The VT DEC recommends that an oil/water separator be inspected every six months to a year and the system be cleaned when needed. A separator with less sediments and lower amounts of oil entering the system may only need to be cleaned every few years.

Who can I call to pump out and clean my separator system?

Oil/water separators can be cleaned by a professional contractor specializing in environmental clean up work. You can contact the Environmental Assistance Office for a list of contractors who do this type of work. These companies have special vacuum trucks that can easily pump materials ranging from liquid, to sludge and dirt slurry. If the liquid is less than 5% by weight petroleum distillates it can be sent to a wastewater treatment facility with approval from the operator. If the solids are less than 5% by weight petroleum distillates they must be land filled. If either the liquid and/or solids contain **greater than** 5% by weight petroleum distillates they must be properly disposed of as a hazardous waste. Please contact the EAO if you have questions about trying to clean and service your own separator system.

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What should not go down the drain and into an oil / water separator?

Antifreeze, degreasers and detergents can emulsify (break up) oil into small droplets so the oil does not float to the surface. Fuels, alcohols or other solvents can also emulsify oil, as well as cause accumulated vapors, posing a threat to facility employees and/or wastewater treatment plant workers. Concentrated amounts of oily products will decrease the effectiveness of the separator system and require more frequent potentially expensive cleanings. Oil/water separators are not designed to treat heavy metal-bearing wastewater. These types of discharges are typically hazardous waste and must be handled and disposed of accordingly.

What can you do to maintain and help keep your oil / water separator clean?

You can save maintenance and service costs by minimizing the amount of oil and sediments that enter your system. By frequently sweeping sand and sediments from the floor, you will greatly reduce the potential of those materials building up in your separator. By using drip pans and oil soaking absorbent materials you will greatly reduce the amount of oils and grease that enter your separator.

Another way to remove oil is to use absorbent pads and socks on the floor and within your floor drain system. These pads and socks float on water and attract and retain oil allowing the water to pass by. Place them in the inlet chamber or within the floor drain network to trap oils before they have a chance to migrate into the separator system. Check the pads and socks often so they don't get fully saturated and become less effective. Some pads can be wrung out and reused if handled properly. Remember to properly handle and dispose of any oils that are extracted from such activities, or manage them as used oil if they are not contaminated. After use any such material must be disposed of as oil soaked hazardous waste. See fact sheets for more information.

For more information, contact:

Wastewater Management Division

Underground Injection Control (UIC) Program
 103 South Main Street - Sewing Building
 Waterbury, VT 05671-0405
 Telephone: 802-241-3822
 Fax: 802-241-2596

DEC Regional Wastewater Offices

Barre:	5 Perry Street, Suite 80	802-479-0190	fax: 479-4272
Essex:	111 West Street	802-879-5656	fax: 879-3871
Springfield: ..	100 Mineral Street, Suite 303	802-885-8855	fax: 885-8890
Rutland:	450 Asa Bloomer State Building ...	802-786-5900	fax: 786-5915
St. Johnsbury:	184 Portland Street	802-751-0130	fax: 748-6687

Washwater Discharges From Vehicle Washing

Water used in washing cars, trucks, and other equipment may contain a wide range of contaminants including oil, other hydrocarbons, metals, detergents, road salt, and grit. These pollutants can be toxic and harmful to living organisms, including fish and the people who eat the fish. It is important to keep these contaminants out of our surface and drinking water. **The Department of Environmental Conservation's (DEC) policy** (dated 12/09/02) **covers only the washwater generated from washing the exterior of vehicles** (cars, trucks, buses, and light or heavy equipment). It supersedes the parts of the "DEC's Floor Drain Procedure" (signed October 8, 1993) that refer to Vehicle washing.

There are four options for handling your vehicle washwater:

1) Install a closed system with no discharge

Operate a "closed loop system" by recycling your washwater. Because no wastewater is discharged to the ground's subsurface or surface, this would not require a UIC permit. However, if it includes a holding tank, the tank will need to be permitted by the DEC Regional Office in your area.

2) Install a holding tank

Install a holding tank to collect the washwater from the floor drain and have the contents disposed of properly. Holding tanks can be installed and pumped out as needed by a qualified hauler. The holding tank contents must be disposed of at an approved disposal facility (i.e. a municipal wastewater treatment facility.) Holding tanks require a permit from the DEC Regional Wastewater Office in your area (see contact info on back). The town may also need to approve the disposal at its wastewater treatment facility.

3) Discharge to municipal sanitary sewer

Connections to the local wastewater treatment facility must be permitted by the Regional Offices and may require adequate pretreatment (e.g. an oil/water separator.) The town may also have an approval process for connections to its wastewater treatment facility.

4) Limit washings to 30 or fewer vehicles per week

If the following conditions are met, the washwater from 30 or fewer vehicle washings per week may be discharged to the **ground surface**.

- A) Whether these vehicle washings occur indoors or outside, the following conditions must be met:
- i. The washwater going to the ground surface must sheet flow over a vegetated area and infiltrate or evaporate on-site, therefore the site should not be graded in a way that encourages the collection of the washwater.
 - ii. The washwater must not cause soil erosion and must not reach waters of the state, either directly or through stormwater drains or ditches.
 - iii. Only non-phosphorus soaps may be used.
 - iv. The use of acids, bases, metal brighteners and degreasing agents as well as pressure washing engines, undercarriage washing and engine cleaning are all prohibited.

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- B) If the vehicle washing takes place indoors (discharging to ground surface), the following **additional** conditions must be met:
 - i. All washing must occur in a wash bay that has a floor drain and is physically separated from where vehicles are serviced.
 - ii. An oil-water separator must be installed on the floor drain piping.
 - iii. The floor drain must be registered with the UIC program (call the UIC Program, 802-241-3822).
 - iv. Hazardous materials can't be stored in the wash area unless adequate containment is provided.

- C) If the vehicle washing takes place outside; the following **additional** conditions must be met:
 - i. Whenever possible, the washing should occur on an impermeable surface (i.e. concrete, asphalt, plastic, or other) and then sheet flow over a vegetated area.

Regardless of which option you chose, remember:

If there is ever a hazardous spill to a floor drain or to the ground and there is a potential for groundwater contamination or the contents of a holding tank is in question, contact the Hazardous Spills Hotline 1-800-641-5005 for assistance.

For more information, contact:

Wastewater Management Division

Underground Injection Control (UIC) Program
 103 South Main Street - Sewing Building
 Waterbury, VT 05671-0405
 Telephone: 802-241-3822
 Fax: 802-241-2596

DEC Regional Wastewater Offices

Barre:	5 Perry Street, Suite 80	802-479-0190	fax: 479-4272
Essex:	111 West Street	802-879-5656	fax: 879-3871
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Rutland:	450 Asa Bloomer State Building ...	802-786-5900	fax: 786-5915
St. Johnsbury:	184 Portland Street	802-751-0130	fax: 748-6687

Federal Spill Prevention, Control, and Countermeasure (SPCC) Regulation - 40 CFR 112

The U.S. Environmental Protection Agency's oil pollution prevention regulation requires facilities that are subject to regulation to prepare *and* implement a plan to prevent any discharge of oil into navigable waters or adjoining shorelines of the U.S. The plan is referred to as a Spill Prevention, Control, and Countermeasure (SPCC) plan.

What is an "Oil"?

"Oil" is any kind or in any form, including, but not limited to: petroleum, fuel, sludge refuse, oil mixed with wastes other than dredged spoil; fats, oils or greases of animal, fish, or marine mammal origin; vegetable oils, including oil from seeds, nuts, fruits, or kernels; and other oils and greases, including synthetic oils and mineral oils.

Who is regulated?

Facilities which meet the following criteria are regulated by the SPCC regulation:

1. Non-transportation-related fixed facilities, including support equipment;
2. Facilities with a total aboveground storage capacity greater than 1,320 gallons (count all drums or vessels greater or equal to 55 gallons) or a total underground storage capacity greater than 42,000 gallons, and;
3. A reasonable expectation that a discharge to navigable waters or adjoining shorelines of the U.S. could occur. (EPA Region I interprets this as any VT facility - unless a case is made against it).

NOTE

- 1,320 gallons is equivalent to 24 full 55-gallon drums of oil.
- UST certified tanks (that are subject to 40 CFR 280 and 281) are exempt from SPCC.
- You must count the potential storage capacity of all on-site oil vessels, whether they contain virgin product or used/waste oil.

What is required?

If your facility meets the three items listed above, you must comply with the SPCC regulation. The SPCC Plan is to be kept on-site and available for regulatory inspections, and must include, but is not limited to:

- Spill predictions
- Facility drainage
- Oil spill history
- Professional Engineer certification
- Facility inspections
- 5-year plan review
- Loading/unloading trucks
- Secondary containment or diversionary structures (outdoors)
- Site security
- Management approval
- Training and spill briefings

For the latest information on SPCC requirements and compliance deadlines, visit the EPA's website at:

<http://www.epa.gov/oilspill/index.htm>

For more information on SPCC regulations, contact:

EPA Region I
Don Grant, SPCC Program Administrator
(617) 918-1768 or (888) 392-7341 toll-free

Or contact:

VT DEC Environmental Assistance Office
(800) 974-9559 (within VT)
<http://www.eaovt.org>

Contact

**Small Business
Compliance Assistance Program**
Judy Mirro, Compliance Specialist
judy.mirro@state.vt.us
(802) 241-3745

Contact

**Municipal
Compliance Assistance Program**
John Daly, Compliance Specialist
john.daly@state.vt.us
(802) 241-3471

Motor Vehicle Air Conditioning

What is CFC-12 and why does it pose an environmental and human health concern?

CFC-12 (also known by the trade name Freon) is a refrigerant used in automobile air conditioners. Scientists worldwide believe that certain man-made chemicals such as CFC-12 are destroying the ozone layer 10-30 miles above the earth's surface. The ozone layer acts as a blanket in the atmosphere, protecting us from the sun's harmful ultraviolet (UV) radiation. Overexposure to UV radiation has been determined to cause skin cancer, cataracts and suppression of the human immune system.

How is CFC-12 regulated?

The 1990 Clean Air Act Amendments banned the production of most ozone-depleting substances, including CFC-12, by the end of 1995. However, the *use* of CFC-12 is still permitted as long as supplies are available. There is no requirement for car owners to convert their vehicle's air conditioning system to an alternative refrigerant.

State and federal regulations do not prescribe any particular service as long as technicians are certified to work with refrigerant and any recycling equipment he or she uses meets EPA standards.

What is HFC-134a?

HFC-134a has been selected by engineers for automotive manufacturers as the replacement refrigerant for CFC-12. Although HFC-134a is not an ozone-depleting chemical, it is a "greenhouse gas" (i.e. a contributor to global warming) and therefore cannot be vented to the air.

Are there other substitutes that are considered safe to use?

EPA evaluates all substitutes for CFC-12 under its Significant New Alternatives Policy in order to determine if they pose any risk to human health or the environment. Currently, HFC-134a is the only alternative which has been fully tested and specified by automakers in their guidelines.

How do technicians become certified?

Technicians who repair or service air conditioners must be certified by an EPA-approved organization. To be certified, technicians must pass a test demonstrating their knowledge in the importance of refrigerant containment, the use of equipment and the effects of ozone depletion. You can find a listing of approved certification programs by going to the following web site: <http://www.epa.gov/docs/ozone/title6/609/technicians/609certs.html> or by calling the Environmental Assistance Office Hotline.

How is equipment certified?

Service shops must also certify to EPA that they have acquired and are properly using approved refrigerant recovery equipment. The certification statement must include the name and address of the business, the name of the equipment manufacturer, equipment model and serial number, and equipment date of manufacture.

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A sample certification form may be found at: <http://www.epa.gov/docs/ozone/title6/609/justfax.html> or in Appendix D of this Guide. A list of approved equipment for CFC-12 recovery and/or recycling can also be found at this web site. Recover/recycle equipment cleans the refrigerant so that oil, air and moisture contaminants reach acceptably low levels. Certain equipment models can recycle either CFC-12 or HFC-134a refrigerants.

What can be done with recovered CFC-12?

Recovered CFC-12 is almost always recycled by either: returning it to the vehicle for reuse or storing it in a holding tank until such time as it is sent to an off-site reclamation facility. Recovered CFC-12 that is not reused directly or reclaimed for further use must be managed as a hazardous waste under Vermont's Hazardous Waste Management Regulations.

What are some Best Management Practices?

- Evacuate and recover refrigerant before servicing to avoid releases.
- Inspect hoses, connections and condenser for leaks. Consider purchase of an electronic leak detector. Avoid using leak detecting products containing CFC-12.
- Don't mix CFC-12 and HFC-134a since contaminated refrigerant must be sent off-site for reclamation.
- Purchase refrigerant in 15lb. containers or greater.
- Retrofit air conditioner to use HFC-134a instead of CFC-12. Lubricants, seals, fittings, etc. used with CFC-12 are generally not compatible with systems retrofitted for HFC-134a. When in doubt as to proper retrofitting procedures, always consult with the air conditioner manufacturer. Motor vehicles, model year 1995 or newer, use HFC-134.

Stage I Gasoline Vapor Recovery Controls

What is Stage I Vapor Recovery?

Stage I vapor recovery refers to the capture of the gasoline vapors generated when a tank truck delivers gasoline to a storage tank at a gasoline station and the return of those vapors to the tank truck. The vapors are then returned to the gasoline terminal by the tank truck where they are either condensed back into liquid gasoline or incinerated.

Who is Required to Have Stage I Vapor Recovery?

By January 1, 1997 Stage I vapor recovery was required at all gasoline stations in Vermont. The only exemption from this requirement is for facilities that receive all gasoline deliveries from trucks with a capacity of less than 4000 gallons (so called “account” or “peddle” trucks).

What is required of owners and operators of gas stations?

If Stage I is required at a gasoline dispensing facility, two methods for achieving Stage I are available: the coaxial (or single-point system) and the dual-point system. An important point to keep in mind when doing any installation or retrofit work on a UST system is that all of the components need to be compatible. Most Stage II vapor recovery systems require a dual-point Stage I system. If a ball-float valve is used for tank overflow protection, and the Stage I system is coaxial, the coaxial drop tube must be the type that includes a drop tube shutoff valve (“flapper valve”) to prevent tank overflow. If a standard coaxial drop tube is used in conjunction with a ball-float valve, the ball-float will not prevent an accidental overflow and possible spill. An overflow alarm is compatible with all types of coaxial drop tubes. If a facility receives all gasoline deliveries from “account” trucks, the only requirement is to install drop tubes in the tanks to achieve submerged fill.

A properly functioning, vapor tight Stage I system requires the following equipment:

- a coaxial drop tube or a standard drop tube (for two-point systems) that extends to within 6 inches of the bottom of each gasoline storage tank to ensure that the drop tube opening is submerged while the tank is being filled;
- a tightly fitting fill cap on each fill pipe;
- for two-point vapor recovery systems, a properly functioning dry-break (poppet valve) that seals the vapor return line when not in use; and
- pressure/vacuum valves on the gasoline tank vent lines to restrict the emission of gasoline vapors from the tank (recommended settings are 3" of water or 1.7 oz./in² for pressure and 8" of water or 4.6 oz./in² for vacuum).

Maintenance of the system requires that you periodically inspect the components to ensure that they are functioning properly. A Stage I system is quite simple so your inspection checklist can be brief:

- make sure that fill caps are in place and seal tightly;

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- check the drop tube for damage; and
- for two-point systems, also check the vapor return fitting to verify that the dry-break makes a tight seal against the vapor recovery fitting.

Proper **use** of the Stage I Vapor Recovery Controls during a delivery is the responsibility of the truck driver. If a Stage I system is present at a gas station, the truck driver is **required** to use it.

Questions?

If you have questions on this regulation please contact the Air Pollution Control Division at the following address:

Vermont Department of Environmental Conservation
Air Pollution Control Division
103 South Main Street
Building 3 South
Waterbury, VT 05671-0402
(802) 241-3840
FAX (802) 241-2590
Internet Address: www.anr.state.vt.us/air

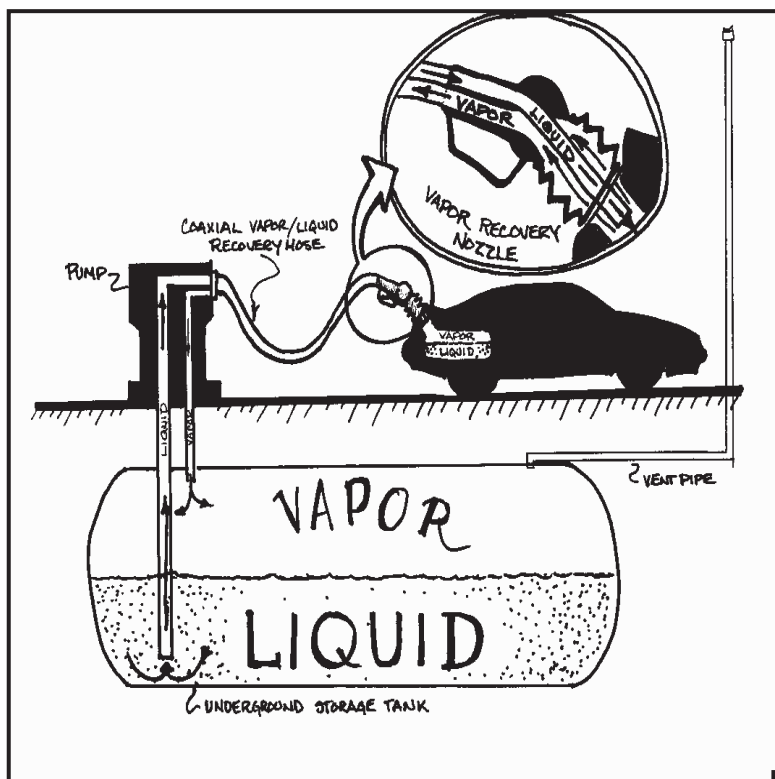
Stage II Gasoline Vapor Recovery Controls

Background

In 1999 the Vermont Agency of Natural Resources adopted a regulation for Stage II vapor recovery controls at gasoline dispensing facilities. This regulation reduces the amount of gasoline vapor emitted to the atmosphere in Vermont from fueling vehicles. Stage II controls allow the gasoline vapor displaced from a vehicle tank to be captured and returned to the gasoline storage tank, instead of being lost to the atmosphere. These vapors are then recovered through Stage I controls when a gasoline tank truck makes a delivery at a station, thereby closing the loop.

Why do Stage II?

- Gasoline vapor is a complex mixture of some 200 chemicals, a number of which are toxic or carcinogenic, such as benzene. This requirement provides health protection benefits by reducing exposure to toxic gasoline vapors.
- Gasoline vapors are composed of volatile organic compounds (VOCs) that contribute to the formation of ground-level ozone or photochemical smog. Smog impairs the human respiratory system, threatens the immune system and causes damage to forests and man-made materials.
- Air monitoring stations in both urban and rural areas of Vermont routinely detect levels of benzene in the air in excess of Vermont's health-based standard. In 2005, the annual average benzene concentration in Burlington was over 11 times the health standard.
- Stage II controls can capture over 95% of the gasoline vapor that would otherwise be emitted to the atmosphere during vehicle fueling.



To Whom Does the Stage II Regulation Apply?

Stage II controls are required at all gasoline dispensing facilities that pump over 400,000 gallons in a calendar year.

Continued ►

What Equipment Is Available for Stage II Vapor Recovery?

There are two general types of Stage II equipment available to owners: balance systems and vacuum-assist systems. Either type will satisfy the requirements of the Stage II regulation. A brief description of each type of system follows:

Balance System: Balance systems use the slight amount of pressure that is created in a vehicle fuel tank by the incoming liquid gasoline and the slight vacuum created in the underground storage tank by the departing liquid gasoline to pull the vapors out of the vehicle tank and transfer them to the underground storage tank. Balance systems require the tight seal of a boot on the nozzle with the vehicle fill-pipe so that the vapors generated during fueling are captured by the nozzle and can't escape to the atmosphere. Advantages of balance systems include their simplicity and relatively low cost to install. A potential drawback to a balance system is that they may be perceived as cumbersome and difficult to use by self-service customers.

Vacuum-Assist System: Vacuum-assist systems utilize a pump to create a vacuum to enable the nozzle to capture vapors from the vehicle fuel tank. This design allows vapors to be captured without the need for a tight seal by the nozzle boot. These systems are more expensive to install than balance equipment, but may be perceived as easier to use. To the user, most vacuum-assist nozzles are virtually indistinguishable from non-vapor recovery nozzles.

What is Required to Comply With the Regulation?

Owners or operators of facilities required to have Stage II controls need to take these actions:

- Install equipment that is certified by the California Air Resources Board or approved by the Vermont Agency of Natural Resources. It is up to station owners to decide whether to install balance or vacuum-assist systems. A list of installers is available from the Vermont Air Pollution Control Division.
- Provide adequate training to employees in the proper operation and maintenance of the Stage II system used at the station.
- Maintain all Stage I and Stage II controls in good working order.
- Conduct a weekly visual inspection of the Stage II system to verify proper operation.
- Tag "Out of Order" any nozzles where Stage II controls are not functioning properly.
- Post operating instructions on the proper operation of Stage II nozzles.
- Perform compliance testing of Stage II controls for proper operation within 30 days of putting a system into initial operation and retest the system at least every 5 years. Typically, this testing will include a pressure decay test, dynamic back pressure (blockage) test and for vacuum-assist systems only, an air to liquid (A/L) ratio test. A list of testing consultants is available from the Vermont Air Pollution Control Division.
- Submit to the Air Pollution Control Division a Stage II Installation and Compliance Form, provided by the Division, within 10 days of the compliance date by which a station is required to have installed Stage II controls.

- By May 15th of each year, either conduct and pass a pressure decay test or perform specified maintenance on the Stage II system. Submit a report documenting completion of one of these tasks by June 15th of each year.

Questions?

If you have questions on this regulation please contact the Air Pollution Control Division at the following address:

Vermont Department of Environmental Conservation
Air Pollution Control Division
103 South Main Street
Building 3 South
Waterbury, VT 05671-0402
(802) 241-3840
FAX (802) 241-2590
Internet Address: www.anr.state.vt.us/air

Managing Waste Fuel and Fuel/Water Mixtures

This fact sheet describes how businesses and municipalities can manage waste fuel and fuel/water mixtures under the Vermont Hazardous Waste Management Regulations (VHWMR). Although the focus is primarily on contaminated gasoline and gasoline/water mixtures, most of the information provided in this fact sheet applies to other liquid fuels (e.g., heating oil, diesel fuel, and kerosene).

How are waste fuels and fuel/water mixtures regulated under the VHWMR?

Under the VHWMR, waste fuel and fuel/water mixtures can be managed either as hazardous waste or, if certain conditions are met, as exempt material. Although waste fuel and fuel/water mixtures are subject to regulation as hazardous waste if they contain greater than 5% petroleum distillate material, or exhibit a hazardous waste characteristic (e.g., ignitability, toxicity), those materials may be managed according to the following two exemptions:

- VHWMR § 7-204(a)(1)(B) exempts wastes that are used or reused as an effective substitute for a commercial product without first being processed or reclaimed. An example is gasoline that is removed from a vehicle during maintenance and used as fuel in small engines.
- VHWMR § 7-204(a)(2)(B) exempts commercial chemical fuel products (exempt fuel products) when they are burned for energy recovery or used to produce a fuel.

Since the first exemption is self-explanatory, the remainder of this fact sheet focuses on managing waste fuel and fuel/water mixtures under § 7-204(a)(2)(B), a provision that is often referred to as the “fuel-to-fuel” exemption.

What conditions should be met in order for a waste fuel or fuel/water mixtures to be considered an exempt fuel product?

Vermont considers waste fuel and fuel/water mixtures to be exempt fuel products when the material has a recoverable quantity of fuel, and the generator:

- ✓ Manages the material as a commodity and in an environmentally sound manner prior to use as fuel (refer to the storage and handling requirements listed below).
- ✓ Does not mix the material with non-fuel hazardous waste.
- ✓ Ships the material within 45 days of generation to a legitimate facility for use as fuel or to produce fuel. A legitimate facility possesses the state and/or federal permits necessary to allow the facility to accept, treat, and/or burn for energy recovery *exempt fuel products* received from off-site.
- ✓ Maintains a written record of material shipped off-site (i.e., the type and amount of material shipped, the dates of generation and shipment, and the name, address and phone number of the receiving facility).

Any waste fuel or fuel/water mixture that is not managed as an exempt fuel product must be evaluated (by the waste generator) to determine if it is hazardous waste (e.g., contains greater than 5% petroleum distillate, and/or exhibits the hazardous waste characteristics of ignitability or toxicity). Wastes determined to be hazardous must be handled according to the requirements of the VHWMR.

Continued ►

Refer to the “Hazardous Waste Determination” fact sheet for more information about making hazardous waste determinations. Hazardous waste program fact sheets and other publications are available on-line at:

<http://www.anr.state.vt.us/dec/wastediv/rcra/pubs.htm>

What are examples of fuel/water mixtures that can be managed as an exempt fuel product?

Examples include fuel storage tank bottom water; fuel/water mixtures collected from underground storage tank secondary containment systems, sumps, and spill buckets; and “bad gas” resulting from vehicle service work.

Tank cleaning wastes, rinsewaters, water that contains hazardous constituents not found in the fuel product, tank bottom sludge, and bilge water *are not considered exempt fuel products*.

How should waste fuel or fuel/water mixtures be stored and handled?

- Handled and stored in a manner that minimizes the possibility of fire, explosion or a release or discharge to air, soil, groundwater, or surface water;
- Stored in containers and tanks on an impervious surface, under cover;
- Label containers and tanks clearly (e.g., "Gasoline for Recycling");
- Ensure that containers and tanks are in good condition;
- Keep containers and tanks closed and sealed except when adding or removing material;
- Keep freezable material in a heated space.

What are some additional best management practices?

- Keep spill and fire control equipment readily available;
- Inspect containers weekly for leaks;
- Store containers more than 50 feet from surface water and storm drains;
- If possible, secure storage areas against unauthorized entry.

How do I respond to a spill should one occur?

Refer to the “Hazardous Material Spill Response” fact sheet for more information about spill response and spill reporting.

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management Division
103 South Main Street, West Bldg.
Waterbury VT 05671-0404
802-241-3888

Environmental Assistance Office
103 South Main Street, Cannery Bldg.
Waterbury VT 05671-4911
1-800-974-9559

Scrap Tires

In recent years, recycling markets for scrap tires have been strong because numerous uses for scrap tires have been developed. Today, recycling scrap tires makes more sense than disposal. Disposal of scrap tires represents wasted resources, energy and money.

Why are Scrap Tires of Concern?

Waste tires are bulky waste which can not be managed along with normal solid waste because of the problems they create when landfilled. When buried in a landfill, tires tend to “float” to the surface over time and disrupt landfill covers as well as landfill gas and leachate collection systems.

Piles of scrap tires present a number of environmental, health and safety hazards. When tire piles catch fire, the melted rubber generates oil and other toxic run-off that can pollute surface and groundwater. The air trapped in tire piles makes fires difficult to extinguish, often causing them to burn uncontrollably. Furthermore, rainwater accumulated in waste tires creates a perfect breeding ground for disease transmitting mosquitoes.

How should scrap tires be managed?

Scrap tires are banned from landfill disposal by Vermont statute. Furthermore, scrap tires may not be burned as fuel without a permit issued by the Vermont Air Pollution Control Division.

Vehicle service shops that generate scrap tires must hire a licensed tire hauler to remove their tires.

Please contact the Solid Waste Management Program at (802) 241-3888 for a list of licensed tire haulers. This list is also available on-line at <http://www.anr.state.vt.us/dec/wastediv/rcra/pubs/AllTrans.pdf> Vehicle service shops should also make sure they know where their scrap tires are going and how the tires are eventually processed. Vermont companies in the business of storing or processing scrap tires must have a permit from the Solid Waste Management Program.

Some of the ways scrap tires are being used include:

- Burning as a tire-derived fuel in cement kilns or electric power plants;
- Retreaded – retreading usually works best for truck tires;
- Shipped to firms that process them to produce crumb rubber or chips;
- Used as a construction material (i.e. intact for retaining walls or shredded for use as a lightweight fill). Approval may be required by the Solid Waste Management Program for some uses. See the Acceptable Use Procedure on-line and contact the Solid Waste Management Program at the number listed above:
http://www.anr.state.vt.us/dec/wastediv/solid/pubs/Acceptable_Uses.pdf

Continued ►

What are some best management practices?

- Do not let tires piles become too large. Ship them as soon as a full load has been accumulated.
- Keep tire piles orderly and accessible from all sides.
- Either cover or store scrap tires in an enclosure until shipped to prevent water from accumulating in the casings. This will help prevent mosquitoes from breeding in the scrap tires.
- Re-market tires with more than 30% serviceable tread.
- Separate the highest quality casings for retreading.
- Encourage customers to regularly check tire pressure and rotate tires according to manufacturers' recommendations, as well as maintain proper wheel alignment and tire balance to prolong tread life.

Asbestos Containing Auto Parts

This fact sheet covers management options for businesses that handle auto parts that potentially contain asbestos, such as brake linings and clutch facings. Although major auto manufacturers no longer use asbestos parts in new vehicles, aftermarket parts containing asbestos are still being made, imported to the United States and used in repairs. This, in conjunction with the presence of asbestos containing parts on older cars, should cause auto repair shops to take precautions where circumstances could lead to employee exposure.

What is Asbestos and Why is it a Concern?

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is made up of microscopic bundles of fibers that may become airborne when disturbed. These fibers get into the air and are inhaled into the lungs, where they may cause significant health problems.

Researchers still have not determined a "safe level" of exposure, but know greater and longer exposure increases the risk of contracting an asbestos related disease. Health effects can result from even a single exposure. Some of these health problems include asbestosis (scarring of the lung tissue), mesothelioma (a type of fatal cancer of the lining of the chest), and lung, intestinal and voice box cancers. It may take 15 to 30 years for these health problems to show up after exposure. Because health effects are not immediate, mechanics and supervisors may develop a false sense of security without realizing that disease may develop much later. Thousands of auto workers are diagnosed each year with asbestos-related diseases. Few mechanics take protective measures when working with brakes - mainly, they say, because they believe asbestos is no longer present.

When is Asbestos Exposure a Problem for Vehicle Service Providers?

Millions of asbestos fibers can be released during brake and clutch servicing. Grinding and beveling friction products can cause even higher exposures. Asbestos released into the air lingers long after a brake job is done and can be breathed in by everyone inside a garage, including customers. Mechanics can expose their families when asbestos is carried on work clothing into their family cars and homes. Eating, drinking and smoking should not be done in an area where brake work is done. Mechanics should wash their hands & face before eating. They should also wash exposed skin and change clothes before going home.

Unless a mechanic is certain before brake work starts that a vehicle's brakes are not lined with asbestos, it should be assumed for the sake of caution that asbestos is present.

If Brakes Are Lined With Asbestos, Which Brake Cleaning Methods Release Asbestos Fibers Into the Air?

The following brake cleaning techniques can result in the release of asbestos into the air and consequently may lead to employee exposure:

- Using a compressed air hose to clean drum brakes;
- Wiping with a dry rag or brushing dust from the assembly;
- Wiping with a wet rag or brush – asbestos will still scatter even if the rag or brush is wet. Furthermore, once dry, the rag or brush can spread the fibers around the work area;

Continued ►

Which Brake Cleaning Methods Release Asbestos Fibers Into the Air? (continued)

- Using liquid squirt bottles or solvent sprays;
- Using a water hose;
- Using a shop vacuum cleaner – a shop vacuum filter is not fine enough to collect asbestos fibers.

What is the Best Way to Minimize Asbestos Exposure?

Whenever possible, use pre-ground, installation-ready brake linings and clutch facings. In situations where asbestos exposures cannot be eliminated entirely, they should be reduced to the lowest possible level. To accomplish this, consider:

- Using specially designed “wet collection” equipment. This is generally a portable sink (which sits on a reservoir typically containing an aqueous brake cleaning solution) which can be rolled directly under the area to be cleaned. Using low pressure flow, the unit pumps the solution over the brake assembly, while the resulting wash is collected in the sink (often with adjustable height) and flows back into the reservoir after being filtered. The filtered solution is then reused for additional cleaning.
- Using enclosure equipment with a HEPA (High-Efficiency, Particulate Air filter) vacuum cleaner for brake cleaning. Enclosure equipment for clutch repair is under development. For more information on using this type of equipment, and what to look for when evaluating enclosure equipment for brake cleaning, please visit: <http://www.ccar-greenlink.org/Search/1306body.htm>
- Where friction materials containing asbestos must be machined, beveled, or lathe-turned, adequate local exhaust ventilation equipment connected to a HEPA vacuum collector should be used. Such equipment should be designed and set up by a professional ventilation engineer, using specifications such as those proposed the American Conference of Governmental Industrial Hygienists. A comprehensive asbestos control and monitoring program must be developed where machining, beveling, or lathe-turning of asbestos parts is done.
- Respirators with asbestos-compatible cartridges may be appropriate for secondary protection during activities where employees have a greater risk of exposure; however, because uncontained brake and clutch repair could contaminate an entire garage with asbestos fibers, mechanics and other employees would have to wear a respirator all day to be fully protected. Please note that respirator use requires a respiratory protection program, including worker training, medical monitoring, proper respirator selection and maintenance, fit testing, and periodic inspections.

How Should Asbestos Containing Auto Parts be Disposed?

Asbestos disposal is covered under Vermont’s Solid Waste Management Rules. Although asbestos materials are not banned from disposal in Vermont, the solid waste landfills operating in the State are no longer accepting asbestos waste. Because of this, vehicle service facilities that generate asbestos containing waste auto parts must have a Vermont Department of Health certified asbestos contractor pick up the asbestos containing waste for proper disposal. The asbestos containing waste auto parts need to be properly packaged prior to shipment by double-wrapping the waste in polyethylene sheeting (with total thickness of 6 mills or greater) and secured with tape. The polyethylene sheeting must fully encapsulate the asbestos containing waste and be secured for transport in appropriate containers. The containers must be transported directly to a disposal facility, and not mixed with other waste types or compacted.

How Should Asbestos Containing Auto Parts be Disposed? (continued)

Asbestos-containing waste must be clearly labeled as follows:

**CAUTION
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD**

Where Can I Get More Information?

Work practices where asbestos exposure is possible are regulated by the Vermont Occupational Safety and Health Administration (VOSHA) which is a part of the Vermont Department of Labor. For information regarding VOSHA requirements, you may contact the Vermont Department of Labor at (802) 828-2765 or VOSHA's non-regulatory assistance program, Project WorkSafe, at 1-888-723-3937.

A list of Vermont Department of Health certified asbestos contractors can be obtained by calling (802) 863-7236 or (800) 439-8550 in Vermont, or by visiting:

http://healthvermont.gov/enviro/asbestos/contractor_list.aspx

Scrap Metal, Recycling, and Landfill Disposal Bans

What Is Scrap Metal?

Scrap metal means bits and pieces of metal parts (rods, bolts, wheel weights) or metal pieces that may be combined together with bolts or solder (radiators, scrap vehicles) which can be recycled. Some scrap parts contain lead, a toxic substance and potential pollutant. Scrap catalytic converters contain platinum, a valuable, recyclable metal. Managing scrap metal safely will help prevent pollution at your salvage yard.

Lead Scrap

Lead wheel (tire) weights and battery cable ends are common sources of lead. Lead is also found in radiators, heater cores, steering columns, soldered parts (circuit boards) and electronic components. Before removing parts such as radiators or heater cores, drain fluids carefully to prevent spills and manage them appropriately. If you need to use a cutting torch, wear respiratory protection, such as a respirator with appropriate filters, to reduce the risk of breathing airborne lead that may be released by heating lead scrap.

Health Alert! To avoid generating toxic lead fumes, use a reciprocating saw rather than a cutting torch to remove lead portions from scrap parts when appropriate. Store scrap items containing lead in a covered container capable of handling the excessive weight of the lead.

- Marking the container “Lead Scrap” will help ensure non-lead scrap is not mixed with it.
- Large scrap items, such as radiators that cannot be stored in a covered container, should be stored to prevent contact with rain, snow and storm water.
- Battery cable ends can be left attached to the battery and recycled along with the battery.
- Recycle lead parts with a metals battery recycler.

Health Alert! After working with lead scrap, always wash well before smoking or eating to avoid ingesting lead.

Catalytic Converters

Store waste catalytic converters in a marked container to prevent mixing with other scrap. Recycle catalytic converters with a catalytic converter collection center.

Cores

Core parts, such as alternators, master brake cylinders, starters and brake pads should be returned to a parts supplier for rebuilding. Before returning brake cylinders or any other part containing fluid, be sure to drain and manage the brake fluid appropriately.

Continued ►

Other Recyclable Materials

Common recyclable materials are: (1) cardboard, including corrugated and boxboard; (2) glass containers; (3) compostable yard and food waste; (4) newsprint; (5) office paper; (6) steel and aluminum cans; and (7) plastic containers (made of HDPE or PET).

Many municipalities and Solid Waste Districts have mandatory recycling ordinances that apply to residential and commercial wastes. Check with your municipality or Solid Waste District to find out if there is mandatory recycling for businesses and the types of materials required to be recycled.

Landfill Disposal Bans

Vermont law prohibits the disposal of the following materials in Vermont landfills:

- lead-acid and nickel-cadmium batteries,
- waste oil
- tires
- paint
- fluorescent bulbs and lamps, and other mercury-added products
- any hazardous waste

Generally, these materials will require recycling at specialized facilities and some may be accepted at municipal hazardous waste collection events or facilities.



VERMONT ENVIRONMENTAL GUIDE FOR VEHICLE SERVICE

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Listed and Characteristic Hazardous Waste

Subchapter 2 of the Vermont Hazardous Waste Management Regulations (VHWMR) identifies all of the wastes that are regulated as hazardous wastes in Vermont.

“F-Listed” Hazardous Wastes: *refer to the VHWMR Section 7-210 for the complete list of wastes from non-specific sources.*

F001 The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons. Also still bottoms from these spent solvents and solvent mixtures.

F002 The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoro-ethane, orthodichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane. Also still bottoms from these spent solvents and solvent mixtures.

F003 The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol. Also still bottoms from these spent solvents and solvent mixtures.

F005 The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, and 2-nitropropane. Also still bottoms from these spent solvents and solvent mixtures.

F006 Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating of carbon steel; and (6) chemical etching and milling of aluminum.

F007 through F012 Various plating wastes where cyanides are used.

F032 Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (unless the generator meets all requirements of 40 CFR Section 261.35).

F034 Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations.

F035 Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving generated at plants that use inorganic preservatives containing arsenic or chromium.

“VT-Listed” Hazardous Wastes:

- VT01** Wastes containing PCBs in concentrations equal to or greater than 50 parts per million.
- VT02** Waste containing greater than 5% by weight of petroleum distillates with melting points of less than 100°F, including but not limited to kerosene, fuel oil, hydraulic oils, lubricating oils, penetrating oils, tramp oils, quenching oils, and crankcase and automotive oils.
- VT03** Waste water-miscible metal cutting and grinding fluid.
- VT06** Pesticidal wastes and obsolete pesticidal products not specifically listed in subchapter 2 (of the Regulations).
- VT08** Waste ethylene glycol and solutions containing greater than 700 parts per million (ppm) of ethylene glycol (e.g., coolants, antifreeze).
- VT20** A solid material that when mixed with an equal weight of distilled water causes the liquid fraction of the mixture to exhibit the properties of the corrosivity characteristic as specified in § 7-206(a)(3) of the Regulations.
- VT99** Non-hazardous waste. This code is to be used only for non- hazardous waste shipped using a hazardous waste manifest.

Characteristic Hazardous Wastes: *refer to the VHWMR Sections 7-205 through 7-208 for complete descriptions of each hazardous waste characteristic.*

- D001** (Ignitable waste): Liquid with a flash point of less than ~140° F; or is not a liquid and is capable under standard temperature and pressure of causing fire and creating a burning hazard; or is an ignitable compressed gas; or is an oxidizer (the chemical names of oxidizers often have “per” as a prefix, “ate” as a suffix, or include “oxide”).
- D002** (Corrosive waste): Liquid with a pH < 2 or ≥ 12.5; or that corrodes steel at a rate greater than ¼ inch/year.
- D003** (Reactive waste): Waste that is unstable; reacts violently with water; can generate toxic gases; or is capable of detonation.
- D004 through D043** (Toxicity Characteristic wastes): Wastes that when analyzed using the "Toxicity Characteristic Leaching Procedure" (TCLP) are found to contain any of the following contaminants at concentrations (in milligrams per liter) greater than or equal to the value identified in parentheses.

- | | |
|---|--|
| D004 - Arsenic (5.0 mg/l) | D022 - Chloroform (6.0 mg/l) |
| D005 - Barium (100.0 mg/l) | D023 through D026 - Cresols (200 mg/l) |
| D006 - Cadmium (1.0 mg/l) | D035 - Methyl ethyl ketone (200.0 mg/l) |
| D007 - Chromium (5.0 mg/l) | D037 - Pentachlorophenol (100.0 mg/l) |
| D008 - Lead (5.0 mg/l) | D039 - Tetrachloroethylene (0.7 mg/l) |
| D009 - Mercury (0.2 mg/l) | D040 - Trichloroethylene (0.5 mg/l) |
| D011 - Silver (5.0 mg/l) | D043 - Vinyl Chloride (0.2 mg/l) |
| D018 - Benzene (0.5 mg/l) | |
| D019 - Carbon tetrachloride (0.5 mg/l) | |


Vermont Hazardous Waste Handler Site ID Form

Vermont businesses and municipalities are required to notify the Department of Environmental Conservation of hazardous waste and some used oil activities. There is no fee associated with this notification. Completion of the Vermont Hazardous Waste Handler Site ID form (Site ID form) results in the issuance of an EPA Identification Number (also known as a Site ID) for your facility. A site ID form only needs to be submitted once unless information previously supplied to the DEC's Hazardous Waste Program changes.

If a facility no longer handles hazardous waste at a location for which an EPA Identification Number has been issued, please send written confirmation of this fact to the Hazardous Waste Program (VT DEC, Waste Management Division, 103 South Main Street, West Office Building, Waterbury, VT 05671-0404), including the handler's name and address, EPA Identification Number, and a brief explanation of the changes in waste handling practices.

Please visit the DEC Hazardous Waste Program's web-site for more information, instructions on completing the Site ID form, and a list of all currently active EPA ID numbers for Vermont. The address is: <http://www.anr.state.vt.us/dec/wastediv/rcra/handlers.htm>

The accompanying sample Hazardous Waste Handler ID Form is not intended to show all wastes that might be generated at a vehicle service and repair facility under Item #10. For a comprehensive list of wastes that might be identified on this Form, please refer to the "Hazardous Waste" section of this guide.

	<p align="center">VT HAZARDOUS WASTE HANDLER SITE ID FORM</p> <p>Please return completed form to:</p> <p align="center">VT DEC Waste Management Division 103 South Main Street/West Bldg Waterbury, Vermont 05671-0404 (802) 241-3888</p> <p align="center">www.anr.state.vt.us/dec/wastediv/rcra/rcrahome.htm</p>	<p>Shaded box for VT DEC Office Use Only</p> <p>Date In:</p> <p>Date Complete:</p> <p>File #</p> <p>Unique #</p>
<p># refers to page of instructions</p>	<p>EPA ID Number:</p>	
<p>1. Reason for Submittal (p 2) Mark Correct Box(es)</p>	<p><input checked="" type="checkbox"/> To provide initial notification (to obtain an EPA ID Number for hazardous waste, including used oil, or universal waste activities).</p> <p><input type="checkbox"/> To provide subsequent notification (to update site identification information). Reason: _____</p> <p><input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application</p> <p><input type="checkbox"/> As a component of a revised RCRA Hazardous Waste Part A Permit Application</p> <p><input type="checkbox"/> As a component of the Hazardous Waste Report</p>	
<p>2. Site Name (p 2)</p>	<p>Name: ACME Auto Service & Repair</p>	
<p>3. Site Location Information (p 2)</p>	<p>Street Address (not P.O. Box): 9999 South Main St</p>	
<p></p>	<p>City or Town: Waterbury</p>	<p>State: VT</p>
<p></p>	<p>County Name: Washington</p>	<p>Zip Code: 05676</p>
<p>4. Site Land Type</p>	<p><input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other _____</p>	
<p>5. North American Industry Classification System (NAICS) Code(s) for Site</p>	<p>A. 811111</p>	<p>B.</p>
<p>6. Site Mailing Address (p 3)</p>	<p>Number and Street or P. O. Box: <input type="checkbox"/> Same as 3, above or: P.O. Box 99999</p>	
<p></p>	<p>City or Town: Waterbury</p>	
<p></p>	<p>State: VT</p>	<p>Country: USA</p>
<p></p>	<p>Zip Code: 05676</p>	
<p>7. Site Contact Person (p 3)</p>	<p>First Name: Tom</p>	<p>Last Name: Thumb</p>
<p></p>	<p>Title: Owner/Operator</p>	
<p>8. Legal Owner and Operator of the Site (p 3)</p>	<p>Name of Site Land Owner: Tom Thumb</p>	
<p></p>	<p>Date Became Owner (mm/dd/yyyy): 10/1/95</p>	
<p></p>	<p>Name of Site Business Owner: SAME</p>	
<p></p>	<p>Date Became Owner (mm/dd/yyyy):</p>	
<p>(List additional owners or operators in Item 13-Comments)</p>	<p>Owner Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other _____</p>	
<p></p>	<p>Name of Site's Operator: SAME</p>	
<p></p>	<p>Date Became Operator (mm/dd/yyyy):</p>	
<p></p>	<p>Operator Type: <input type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other _____</p>	



	EPA ID No.
9. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes):	
A. Hazardous Waste Activities:	
<p>1. Generator of Hazardous Waste (p 4) (Choose only one of the following three categories.)</p> <p><input type="checkbox"/> a. Large Quantity Generator: 1,000 kg (2,200 lbs.) or greater of <i>non-acute</i> hazardous waste generated in a calendar month, or 1 kg (2.2 lbs) or greater of <i>acute</i> waste</p> <p><input type="checkbox"/> b. Small Quantity Generator: 100 to 1,000 kg/mo (220 - 2,200 lbs.) of <i>non-acute</i> hazardous waste; less than 1 kg (2.2 lbs) of acute waste</p> <p><input checked="" type="checkbox"/> c. Conditionally Exempt Generator: Less than 100 kg/mo (220 lbs) of <i>non-acute</i> hazardous waste; accumulate less than 1000 kg (2200 lbs) total hazardous waste</p> <p>In addition, indicate other generator activities (p 4) (check all that apply).</p> <p><input type="checkbox"/> d. United States Importer of Hazardous Waste</p> <p><input type="checkbox"/> e. Mixed Waste (hazardous and radioactive) Generator</p>	<p>For Items 2 through 6, check all that apply (p 5).</p> <p><input type="checkbox"/> 2. Transporter of Hazardous Waste Note: A hazardous waste transporter permit is required for this activity.</p> <p><input type="checkbox"/> 2a. Hazardous Waste Transfer Facility</p> <p><input type="checkbox"/> 3. Treater, Storer, or Disposer of Hazardous Waste (at your site) Note: A hazardous waste facility certification is required for this activity.</p> <p><input type="checkbox"/> 4. Recycler of Hazardous Waste (at your site) Note: A hazardous waste permit may be required for this activity.</p> <p>5. Exempt Boiler and/or Industrial Furnace</p> <p><input type="checkbox"/> Small-Quantity On-site Burning Exemption</p> <p><input type="checkbox"/> Smelting, Melting, and Refining Furnace Exemption</p>
<p>B. Universal Waste Activities (p 5):</p> <p><input type="checkbox"/> 1. Large Quantity Handler of Universal Waste (accumulate 5000 kg or more) Mark all that apply:</p> <p>a. Batteries <input type="checkbox"/></p> <p>b. Pesticides <input type="checkbox"/></p> <p>c. Thermostats <input type="checkbox"/></p> <p>d. Lamps <input type="checkbox"/></p> <p>e. Light Ballasts <input type="checkbox"/></p> <p><input type="checkbox"/> 2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.</p>	<p>C. Used Oil Activities (p 6):</p> <p>1. Used Oil Transporter - Indicate Type(s) of Activity(ies)</p> <p><input type="checkbox"/> a. Transporter</p> <p><input type="checkbox"/> b. Transfer Facility</p> <p>2. Used Oil Processor and/or Re-refiner - Indicate Type(s) of Activity(ies)</p> <p><input type="checkbox"/> a. Processor</p> <p><input type="checkbox"/> b. Re-refiner</p> <p>3. Used Oil Burner</p> <p><input type="checkbox"/> a. Off-Specification</p> <p><input checked="" type="checkbox"/> b. Specification</p> <p>If used oil is received from offsite, please list name & address of source _____</p> <p>4. Used Oil generator/marketer that gives or sells used oil to others to burn</p> <p><input type="checkbox"/> a. Off-Specification</p> <p><input type="checkbox"/> b. Specification</p> <p>(Please list burner(s) name & address): _____</p> <p>5. Used Oil Fuel Marketer - Indicate Type(s) of Activity(ies)</p> <p><input type="checkbox"/> Marketer who collects and blends or processes used oil collected</p> <p><input type="checkbox"/> Marketer who collects and distributes used oil collected</p> <p>6. <input type="checkbox"/> Used Oil generator that sends used oil to be re-refined</p> <p>7. <input type="checkbox"/> Used Oil Collection Facility</p>



APPENDIX B

		EPA ID No.
<p>10. Description of Hazardous Wastes (p 7): Please list the waste name, waste codes and estimated monthly quantity of the hazardous waste handled at your site. Use all waste codes for each waste stream (federal waste codes take precedence over state waste codes). Use an additional page if more spaces are needed. For long lists, please list waste codes in alphanumeric order.</p>		
Waste Name	EPA/State Waste Codes	Estimated Monthly Quantity
Parts Washer	D001, D039	5 gal/month
Oil soaked sorbents	VT02	20 lbs/mo
Gasoline/Water mix	D001, D018	25 gal/year
<p>11. Does your company own other facilities or have affiliates in Vermont? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please list name(s) & location(s):</p>		
<p>12. If this document was prepared by a contractor/transporter on behalf of the hazardous waste handler, please list your contact information including name, company name, phone and fax numbers:</p>		
<p>13. Comments: <i>- waste gasoline/water generated infrequently</i></p>		
<p>14. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>		
Signature of owner, operator, or an authorized representative	Name and official title (type or print) of owner, operator, or an authorized representative	Date Signed (mm-dd-yyyy)
<i>Tom Thum</i>	Tom Thum, owner	2/1/03



The Hazardous Waste Manifest

A manifest is a multiple copy shipping form that is used to track the movement of hazardous waste from its place of generation to its final destination (which should be a permitted treatment, storage and/or disposal facility). Conditionally exempt generators (CEG) that self-transport their own waste are not required to use a manifest; however, if a CEG uses a permitted commercial transporter to transport hazardous waste to a certified treatment, storage or disposal facility (TSDF), the transporter will likely require the use a manifest and consequently, the CEG must comply with the manifest instructions.

Every shipment of hazardous waste from Small Quantity and Large Quantity Generators must be accompanied by a Uniform Hazardous Waste Manifest, and for some wastes must also have a one-time Land Disposal Restriction (LDR) form to certify the waste meets certain pre-disposal treatment standards.

In most cases, your hazardous waste transporter will help you with the process of selecting a TSDF and completing manifests / LDR forms. Although you may only be asked by your transporter to sign the manifest, you are responsible for all of the information on it. It is a good idea to check the form to make sure the information is correct and complete. Instructions on how to complete a manifest can be found in the Vermont Hazardous Waste Management Regulations which can be found on-line at:
http://www.anr.state.vt.us/dec/wastediv/rcra/hazregs/VHWMRFull_wCover.pdf

After your transporter has accepted your waste, he or she will also sign the manifest form and give you your copies. Make sure you are given the correct copies. The copies are numbered and have printed on them where they are to be sent.

The accompanying sample manifest is for a hypothetical vehicle service facility in Vermont using a Massachusetts hazardous waste transporter to ship waste to a TSDF in Connecticut. As of September 5, 2006 the U.S. EPA requires the use of the same manifest form nationwide.

For more information on manifests and where to obtain forms (including continuation sheets), visit the DEC's Waste Management Division website:
<http://www.anr.state.vt.us/dec/wastediv/rcra/manifests.htm>

The Environmental Assistance Office (EAO) or the Waste Management Division (WMD) can provide a list of permitted transporters. Contact the EAO at 800- 974-9559 or the WMD at 802-241-3888 or go to the WMD website at:
<http://www.anr.state.vt.us/dec/wastediv/rcra/pubs/Haztrans.pdf>



VERMONT ENVIRONMENTAL GUIDE FOR VEHICLE SERVICE

APPENDIX C

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number VTD555666777	2. Page 1 of 1	3. Emergency Response Phone 800-222-3344	4. Manifest Tracking Number ABC999999999			
5. Generator's Name and Mailing Address ACME AUTO SALES & SERVICE PO BOX 99999 WATERBURY, VT 05676 Generator's Phone: 802-555-1212				Generator's Site Address (if different than mailing address) ACME AUTO SALES & SERVICE 9999 SOUTH MAIN STR WATERBURY, VT 05676				
6. Transporter 1 Company Name ROGERS TRANSPORT SERVICE					U.S. EPA ID Number VTZ000999888			
7. Transporter 2 Company Name ONEWAY TRANSPORT SERVICES					U.S. EPA ID Number MAZ111222333			
8. Designated Facility Name and Site Address FINAL STOP ENVIRONMENTAL SERVICES 100 AVENUE Z MOODUS, CT 06088 Facility's Phone: 888-657-0001					U.S. EPA ID Number CTZ333444555			
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No.	11. Total Quantity	12. Unit WL/VOL	13. Waste Codes	
		1. WASTE OIL & ABSORBENT MIXTURE NON RCRA REGULATED		3	DM	1200	P	
		2. USED OIL FOR RECYCLING NON DOT REGULATED MATERIAL		1	DM	55	G	
	X	3. RQ WASTE PAINT RELATED MATERIAL 3 UN1263 PGII		2	DM	150	P	
	X	4. RQ WASTE COMBUSTIBLE LIQUID (PETROLEUM NAPHTHA) NA1993 PG III PARTS WASHER		1	DM	55	G	
14. Special Handling Instructions and Additional Information								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 261.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name GEORGE WASHINGTON				Signature <i>George Washington</i>		Month Day Year 02 01 06		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____								
TRANSPORTER INTL	17. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name ROGER CLARKE			Signature <i>Roger Clarke</i>		Month Day Year 02 01 06		
	Transporter 2 Printed/Typed Name JOHN ONEWAY			Signature <i>John Oneway</i>		Month Day Year 02 03 06		
18. Discrepancy								
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number: _____								
DESIGNATED FACILITY	18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____							
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
	1. H050		2. H101		3. _____		4. _____	
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a							
Printed/Typed Name JOHN FINAL				Signature <i>John Final</i>		Month Day Year 02 08 06		

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)



GENERAL REQUIREMENTS FOR ABOVEGROUND & UNDERGROUND STORAGE TANKS

(Other requirements may be applicable by other state and federal agencies)

State of Vermont
Department of Environmental Conservation
Waste Management Division

103 South Main Street, West Bldg.
Waterbury, VT 05671-0404
Tel: 802-241-3888

TYPE OF TANK & GENERAL INFORMATION	Notification/Registration?	Permit?	Financial Responsibility?	Release Detection?	Spill, Overflow & Corrosion Protection?	Site Assessment at removal/Closure?	Required to report leaks or spills?	Uninsured releases covered by PCF?	Petroleum Cleanup Fund (PCF) Deductible?
These Are Category One Tanks (in the white area below only)									
Underground Motor Fuel – Any Size.	YES	YES	YES	YES	YES	YES	YES	YES	\$10,000
Used Oil Tank – Any Size, (special sampling requirements apply for site assessment)	YES	YES	YES	YES	YES	YES	YES	YES	\$10,000
Underground Fuel Oil Tank Commercial or industrial use (not only space heating) Any Size (e.g., generator, process heat, etc).	YES	YES	YES	YES	YES	YES	YES	YES	\$10,000
Underground Chemical (Non-petroleum) Tank – Any Size. •Federal deadline for financial responsibility has been deferred	YES	YES	•NO	YES	YES	YES	YES	NO	N/A
These Are Not Category One Tanks (gray shaded area below)									
Underground Motor Fuel Tank Farm or residential property ••These tanks are automatically covered by PCF. Annual assessment fee not required.	< 1,100 Gal.	NO	NO	NO	NO	NO	YES	YES	\$250
	> 1,100 Gal.	YES	NO	••YES	YES	YES	YES	YES	\$10,000
Underground Heating Oil Tank Used only for space heating, domestic hot water, and/or humidification. •••Upgrading these tanks with spill, overflow, and corrosion protection is highly recommended. ••••Site assessment is required if applying for a grant to remove tank.	<1,100 Gal.	NO	NO	NO	•••NO	••••NO	YES	YES	\$250
	>1,100 Gal.	YES	NO	NO	•••NO	YES	YES	YES	\$250
	Residential/ Farm Property	>1,100 Gal.	YES	NO	NO	•••NO	YES	YES	\$10,000
Commercial Property	>1,100 Gal.	YES	NO	NO	•••NO	YES	YES	YES	\$10,000
Aboveground Petroleum Tank Uninsured releases from aboveground tanks are now covered by PCF.	Residential/ Farm Property	NO	NO	NO	NO	NO	YES	YES	\$250
	Commercial Property	NO	NO	NO	NO	NO	YES	YES	\$1,000
	Bulk Facility	NO	NO	NO	NO	NO	YES	YES	\$10,000



Common OSHA Violations for Vehicle Service

The following information details the top 12 violations cited by the US Department of Labor (2004-2005) for Automotive Repair Shops (SIC 7538), listed in order of “most” violations cited.

1. Hazard Communication (haz-com) 1910.1200

Your shop is required to have a written haz-com plan, maintain Material Safety Data Sheets for each chemical, label all products, and provide haz-com training for all employees directly involved with chemical handling.

2. Respiratory Protection 1910.134

Your shop is required to have a written respiratory plan. All employees wearing respiratory equipment must be fit tested annually, you must provide medical clearance, and provide training to all employees exposed to respiratory exposures.

3. Portable Fire Extinguishers 1910.157

Your shop is required to provide monthly extinguisher checks, as well as annual checks. Your shop is also required to provide employee training on extinguisher use.

4. Abrasive Wheel Machinery (Grinders) 1910.215

Provide a tool rest and safety guard for each abrasive wheel. Gap standards between each tool rest and wheel should be at no more than 1/8 inch and the gap between each safety guard and wheel should be set at no more than 1/4 inch.

5. Electrical Wiring 1910.305

Comply with the electrical wiring standard by maintaining closed electrical boxes, safeguard them from abrasive wires, provide strain relief on flexible cords connected to boxes, and avoid the use of flexible wiring where permanent wiring is required.

6. Guarding Floor and Wall Openings 1910.23

Provide guards for floor and walkways openings, drop-offs and handrails.

7. Work Space around Electrical Equipment 1910.303

Sufficient space shall be provided and maintained about electric equipment to permit ready and safe operation and maintenance of such equipment,

8. Oxygen-Fuel Gas Welding and Cutting 1910.253

Comply with the requirements for oxygen and acetylene cylinder safety standards. Turn cylinder valves off when they are not in use, chain or otherwise secure cylinders, store oxygen and acetylene cylinders 20 feet apart or separated by a 5 foot high non-combustible barrier.

9. Exit Routes Maintained Open/Unlocked and Unblocked 1910.37

Comply with the requirements for open exit routes during business hours.

10. Spray Finishing Using Flammable and Combustible Materials 1910.107

Spraying areas shall be provided with mechanical ventilation adequate to remove flammable vapors, mists, or powders to a safe location and to confine and control combustible residues so that life is not endangered. Mechanical ventilation shall be kept in operation at all times while spraying operations are being conducted and for a sufficient time thereafter to allow vapors from drying coated articles and drying finishing material residue to be exhausted.

11. Housekeeping 1910.22

All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition. The floor of every workroom shall be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used, drainage shall be maintained and false floors, platforms, mats, or other dry standing places should be provided where practicable. To facilitate cleaning, every floor, working place, and passageway shall be kept free from protruding nails, splinters, holes, or loose boards.

12. Eye & Face Protection 1910.133

Employers must ensure each affected employee uses appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

For assistance with VOSHA related items in your Vehicle Service Shop, contact:

Project WorkSAFE

www.state.vt.us/labind/projectws.htm

Vermont Department of Labor & Industry - Safety and Health Consultation

1-888-SAFE-YES (1-888-723-3937)

The Voluntary Protection Programs recognizes that compliance enforcement alone can never fully achieve the objectives of the Vermont Occupational Safety and Health Act. Aggressive safety management programs that exceed VOSHA standards can protect workers more effectively than simple compliance. For more information, visit the web site or call:

Department of Labor

Voluntary Protection Programs 1-800-287-2765

www.state.vt.us/labind/Vosha/vpp.htm

FAQ page: www.state.vt.us/labind/Vosha/vppfaq.htm

A Quick Guide to Reading Material Safety Data Sheets

The information in the table below should help you understand how a Material Safety Data Sheet (MSDS) is formatted and what kind of information it contains. It is always a good idea to ask vendors for a copy of an MSDS for a chemical or product before bringing it on-site. This will allow you to evaluate the product and compare it to others that perform a similar function. By doing this you can select the product or chemical that represents the least hazard to your employees and will result in the least amount of regulation.

The federal Occupational Safety and Health Administration (OSHA) Hazard Communication Standard requires MSDSs must be obtained and maintained for every chemical used in the workplace. The MSDSs must be accessible to all personnel during their work hours.

What is This Stuff?

Section I: Product Identity

Provides the common or manufacturer's name and any approved chemical name and/or synonyms.

Chemical formula (if applicable), intended uses, and emergency telephone numbers. Including the assigned CAS number – the number assigned to chemicals or materials by the Chemical Abstracts Service.

Section II: Hazardous Ingredients

Names the hazardous ingredients and tells you the maximum amount you can be exposed to without harm.

Exposure limits, if available, are also provided for each hazardous component. The OSHA permissible exposure limit (PEL), National Institute for Occupational Safety and Health (NIOSH) recommended exposure limit (REL), and/or the American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV) will also be listed, if appropriate. The OSHA PEL is the regulated standard, while the others are recommended limits. The PEL is usually expressed in parts per million parts of air (ppm) or milligrams of dust or vapor per cubic meter of air (mg/m³). It is usually a time weighted average (TWA) - concentration averaged over an eight hour day. Sometimes, a short term exposure limit STEL may be listed. The STEL is a 15 minute TWA which should not be exceeded. A ceiling limit (C) is a concentration which may not be exceeded at any time. A "skin" notation means that skin exposure is significant in contributing to the overall exposure.

How Does This Chemical Behave?

Section III: Physical Data/Chemical Characteristics

This section helps to figure outlines the physical properties of the chemical and how likely it is to evaporate and give off vapors (leading to exposure and/or fires) or even smell.

Boiling Point: temperature at which liquid changes to vapor state

Melting Point: temperature at which a solid begins to change to liquid

Vapor Pressure: a measure of how volatile a substance is and how quickly it evaporates.

Vapor Density (air=1): weight of a gas or vapor compared to weight of an equal volume of air. Density greater than 1 indicates it is heavier than air, less than 1 indicates it is lighter than air. Vapors heavier than air can flow along just above ground, where they may pose a fire or explosion hazard.

Specific Gravity (water=1): ratio of volume weight of material to equal volume weight of water.

Solubility in Water: percentage of material that will dissolve in water, usually at ambient temperature.

Appearance/Odor: Odor threshold refers to the concentration required in the air before vapors are detected or recognized.

% Volatile by Volume: Percentage of a liquid or solid, by volume, that evaporates at a temperature of 70oF.

Evaporation Rate: the rate at which a material evaporates when compared to a known material's evaporation rate.

Viscosity: internal resistance to flow exhibited by a fluid; measurement of the flow properties of a material
Other Pertinent Physical Data: information such as freezing point is given, as appropriate.

Is This Product Dangerous?

Section IV: Fire and Explosion Data

Discusses when a chemical will ignite (including flash points) and fire fighting procedures.

Section V: Reactivity Data

Find out just how stable the chemical is. This section will tell you if the substance will explode or breakdown in the presence of heat, water or air.

Can This Product Hurt My Health?

Section VI: Health Hazard Exposure

The medical signs & symptoms are explained in this section that you may encounter with exposure or overexposure of the chemical. "Routes of Exposure" tell you how the chemical can get into your body (e.g. absorbed through the skin, inhalation, etc.) Explains what the health effects may be for short term (acute) and long term (chronic) exposures and whether it can cause cancer. It also includes emergency and first aid procedures.

How Should I Work With This Stuff?

Section VII: Precautions for Handling & Use

What to do in case of a spill. Precautions and appropriate methods for spill clean-ups are explained. Proper waste disposal methods and how to protect people and the environment from exposure are also explained. Be aware that many MSDS only focus on Federal disposal requirements and may not accurately reflect more stringent State disposal requirements.

How Should I Be Protected?

Section VIII: Control Measures

This section is all about personal protective equipment (PPE) for handling this chemical/material. Many times, this section of the MSDS is written for large scale use of the chemical. Appropriate PPE may be determined by considering the amount and use of the chemical. PPE includes:

Eye Protection, Skin Protection, Respiratory Protection, Ventilation

Resource Contact List

Vermont Department of Environmental Conservation

103 South Main St., Waterbury

Web-site: <http://www.anr.state.vt.us/dec/dec.htm>

Environmental Assistance Office

1-800-974-9559

Small Business Compliance Assistance Program
 Municipal Compliance Assistance Program
 Pollution Prevention & Waste Reduction Assistance
 Permit Assistance Program
 Vermont Business Environmental Partnership

Air Pollution Control Division

241-3840

Waste Management Division

Hazardous Waste Program	241-3888
Solid Waste Program	241-3444
Underground Storage Tank Program	241-3888

Wastewater Management Division

Underground Injection Control (Floor Drains)	241-3822
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Regional Engineering Offices

Barre	476-0190
Essex Junction	879-5656
North Springfield	885-8855
Rutland	786-5900
St Johnsbury	751-0130

Other Vermont Resources:

Small Business Development Center P O Box 188, Randolph, VT Web-site: http://www.vtsbdc.org/regulatory.cfm	1-800-464-7232
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Vermont Agency of Transportation Hazardous Materials Transport	828-2797
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Vermont Department of Labor and Industry Project WorkSAFE Web-site: http://www.state.vt.us/labind/projectws.htm	1-888-723-3937
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Vermont Automobile Dealers Association 317 River St., Montpelier, VT Web-site: http://www.vermontada.org/	223-6635
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VERMONT SOLID WASTE DISTRICTS (May 2006)

ADDISON COUNTY SOLID WASTE MANAGEMENT DISTRICT

<p>P.O. Box 573, Route 7 South Middlebury, VT 05753 (802) 388-2333 e-mail: acswmd@acswmd.org</p>	<p>Addison, Bridport, Cornwall, Ferrisburg, Goshen, Leicester, Lincoln, Middlebury, Monkton, New Haven, Orwell, Panton, Ripton, Shoreham, Starksboro, Vergennes, Waltham, Weybridge, Whiting</p>
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BENNINGTON REGIONAL PLANNING COMMISSION

<p>9 Church Street / PO Box 10 Arlington, VT 05250 (802) 375-2576</p>	<p>Arlington, Dorset, Manchester, Pownal, Rupert, Sandgate, Shaftsbury, Stamford, Sunderland</p>
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CENTRAL VERMONT SOLID WASTE MANAGEMENT DISTRICT

<p>137 Barre Street Montpelier, VT 05602 (802) 229-9383 e-mail: comments@cvswwmd.com</p>	<p>Barre City, Barre Town, Berlin, Bradford, Cabot, Calais, Chelsea, East Montpelier, Greensboro, Hardwick, Marshfield, Middlesex, Montpelier, Newbury, Northfield, Orange, Plainfield, Roxbury, Tunbridge, Walden, Washington, Williamstown, Woodbury</p>
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CHITTENDEN SOLID WASTE DISTRICT

<p>1021 Redmond Road Williston, VT 05495 (802) 872-8100 e-mail: info@cswd.net</p>	<p>Bolton, Burlington, Charlotte, Colchester, Essex, Essex Junction, Hinesburg, Huntington, Jericho, Milton, Richmond, St. George, Shelburne, South Burlington, Underhill, Westford, Williston, Winooski</p>
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GREATER UPPER VALLEY SOLID WASTE MANAGEMENT DISTRICT

<p>96 Mill St. / P.O. Box 58 North Hartland, VT 05052-0058 (802) 296-3688 e-mail: guvswd@valley.net</p>	<p>Bridgewater, Hartland, Norwich, Pomfret, Sharon, Strafford, Thetford, Vershire, West Fairlee, Woodstock</p>
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LAMOILLE REGIONAL SOLID WASTE MANAGEMENT DISTRICT

<p>29 Sunset Drive, Suite 5 Morrisville VT 05661-9788 (802) 888-7317 e-mail: info@lrswmd.org</p>	<p>Belvidere, Cambridge, Craftsbury, Eden, Elmore, Hyde Park, Johnson, Morristown, Stowe, Waterville, Wolcott, Worcester</p>
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LONDONDERRY GROUP

<p>PO Box 118 South Londonderry, VT 05148 (802) 824-6304</p>	<p>Landgrove, Londonderry, Peru, Weston, Windham</p>
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MAD RIVER SOLID WASTE ALLIANCE

<p>P.O. Box 210 Waterbury Center, VT 05677 (802) 244-7373 e-mail: malterport@aol.com</p>	<p>Duxbury, Fayston, Moretown, Waitsfield, Warren, Waterbury</p>
--	--

NORTHEAST KINGDOM WASTE MANAGEMENT DISTRICT

<p>P.O. Box 1075 Lyndonville, VT 05851 (802) 626-3532 e-mail: progmgr@nekwmd.org</p>	<p>Albany, Averill, Averys Gore, Barnet, Bloomfield, Brighton, Brunswick, Canaan, Concord, Danville, Derby, East Haven, Ferdinand, Granby, Groton, Guildhall, Holland, Irasburg, Kirby, Lewis, Lunenburg, Lyndon, Maidstone, Morgan, Newark, Peacham, Ryegate, Sheffield, Stannard, Sutton, Victory, Waterford, Warren Gore, Warners Grant, Westmore, Wheelock</p>
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NORTHWEST VERMONT SOLID WASTE MANAGEMENT DISTRICT

<p>10-12 Kingman Street / P.O. Box 1547 St. Albans, VT 05478 (802) 524-5986 e-mail: operations@nswsd.org</p>	<p>Alburg, Bakersfield, Berkshire, Enosburg, Fairfield, Fletcher, Georgia, Grande Isle, Isle LaMotte, Montgomery, North Hero, Richford, St. Albans City, Sheldon, South Hero</p>
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RUTLAND COUNTY SOLID WASTE DISTRICT

<p>2 Green Hill Lane Rutland, VT 05701-5915 (802) 775-7209 e-mail: rcswd@rcswd.com</p>	<p>Brandon, Castleton, Clarendon, Danby, Hubbardton, Ira, Killington, Mendon, Mt. Tabor, Pittsford, Poultney, Proctor, Rutland City, Wallingford, Wells, West Rutland</p>
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SOLID WASTE ALLIANCE COMMUNITIES

<p>87 Halls Pond Road Salem, NY 12856 (518) 854-9702 e-mail: info@rutlandcountyswac.org</p>	<p>Benson, Chittenden, Fair Haven, Middletown Springs, Pawlet, Rutland Town, Shrewsbury, Sudbury, Tinmouth, West Haven</p>
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SO. WINDSOR/WINDHAM COUNTY SW MANAGEMENT DISTRICT

<p>c/o NH/VT Solid Waste Project 130 Pleasant Street suite #3 Claremont, NH 03743 (603) 543-1201</p>	<p>Andover, Baltimore, Cavendish, Chester, Grafton, Ludlow, Plymouth, Reading, Rockingham, Springfield, Weathersfield, Westminster, West Windsor, Windsor</p>
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TRI-TOWN AGREEMENT

<p>Drawer B Randolph, VT 05060</p>	<p>Braintree, Brookfield, Randolph</p>
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WHITE RIVER ALLIANCE

<p>RR 1 Box 335 Bethel, VT 05032 (802) 234-9340</p>	<p>Barnard, Bethel, Hancock, Pittsfield, Rochester, Royalton, Stockbridg</p>
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WINDHAM SOLID WASTE MANAGEMENT DISTRICT

<p>327 Old Ferry Road Brattleboro, VT 05301 (802) 257-0272 e-mail: recycle@swsmd.org</p>	<p>Brattleboro, Brookline, Dover, Dummerston, Guilford, Halifax, Jamaica, Marlboro, Newfane, Putney, Readsboro, Stratton, Townshend, Vernon, Wardsboro, Whitingham, Wilmington, Winhall</p>
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NON-DISTRICT TOWNS

Any business located within a town that is not a member of a solid waste district, planning commission or alliance, should contact their town clerk for information about hazardous waste management options.



REGIONAL OFFICES

DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC) DISTRICT ENVIRONMENTAL COMMISSIONS (ACT 250)

DISTRICTS 1, 8, & 9

450 Asa Bloomer State Office Bldg.
Merchants Row
Rutland, VT 05701-5903

DEC Permit Specialist.....	786-5907
DEC Regional Engineer.....	786-5900
Act 250 (Dist #1 & 8).....	786-5920
Act 250 (Dist #9).....	879-5614
DEC River Management.....	786-5906

DISTRICTS 2 & 3

100 Mineral St, Ste #303
Springfield, VT 05156

DEC Permit Specialist.....	885-8850
DEC Regional Engineer.....	885-8855
Act 250 (Dist #2, 3, & 3A).....	885-8855
DEC River Management.....	786-5906
DEC Wetlands.....	476-2678

DISTRICTS 4 & 6

111 West Street
Essex Junction, VT 05452

DEC Permit Specialist.....	879-5676
DEC Reg. Engineer (Dist #4 & 6).....	879-5656
DEC Reg. Engineer (Dist #9).....	786-5900
Act 250 (Dist #4, 6, & 9).....	879-5614
DEC River Management.....	879-5631
DEC Wetlands (Dist #4).....	879-2396
DEC Wetlands (Dist #6).....	241-3754

DISTRICTS 3A & 5

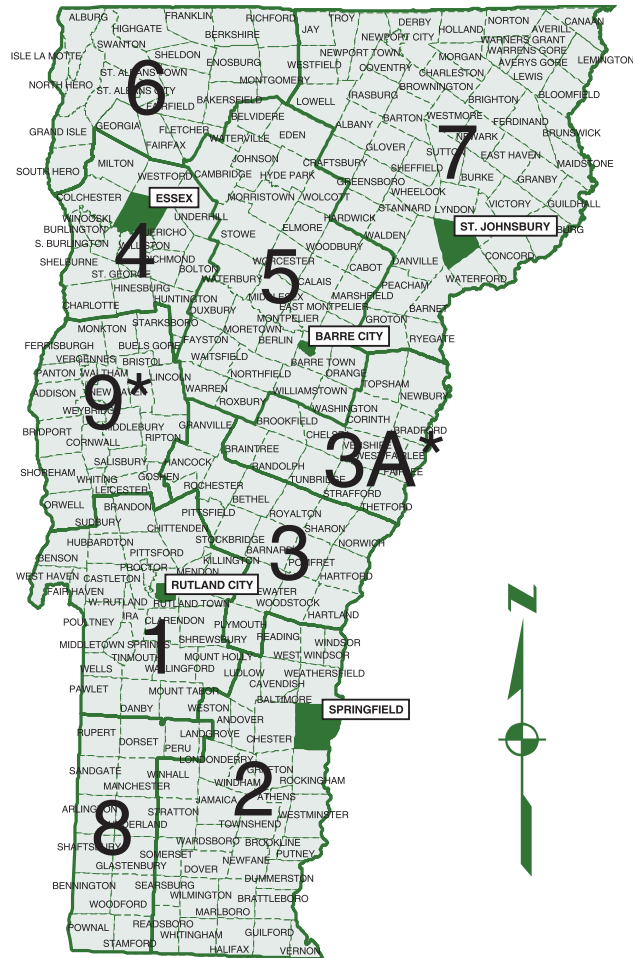
5 Perry Street, Suite 80
Barre, VT 05641-4282

DEC Permit Specialist.....	476-0195
DEC Regional Engineer.....	476-0190
Act 250 (Dist #3A).....	885-8855
Act 250 (Dist #5).....	476-0185
DEC River Management.....	476-2679
DEC Wetlands (Dist #3A).....	476-2678
DEC Wetlands (Dist #5).....	241-3762

DISTRICT 7

1229 Portland St-Ste 201
St. Johnsbury, VT 05819

DEC Permit Specialist (Tues)	751-0127
DEC Regional Engineer.....	751-0130
Act 250.....	751-0120
DEC River Management.....	476-2679
DEC Wetlands.....	241-3762



DEC and ACT 250 Regional Office Map
February 17, 2006

3A* NOTE:

For towns in District 3A, contact the Springfield Office for Act 250 Permits. For Water Supply, Wastewater Disposal and Subdivision Permits, District 3A must contact the Barre Office.

9* NOTE:

For towns in District 9, contact the Essex Junction Office for Act 250 Permits. For Water Supply, Wastewater Disposal and Subdivision Permits, District 9 must contact the Rutland Office.

