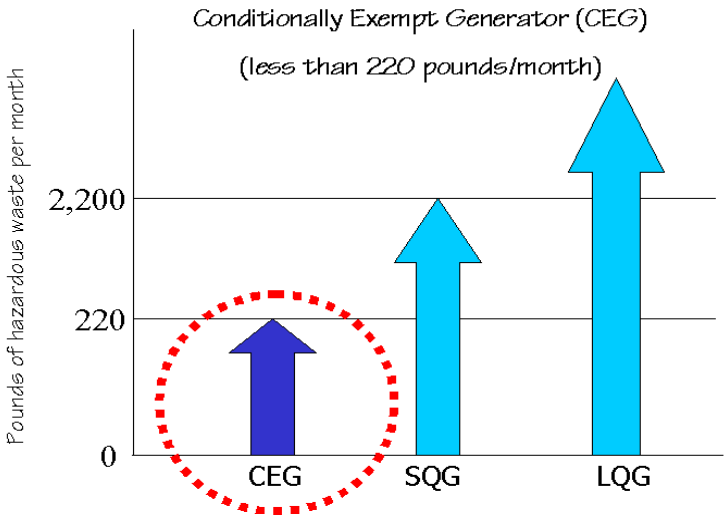
Vermont Agency of Natural Resources
Waste Management & Prevention Division

Conditionally Exempt Generator Handbook



A Hazardous Waste Management Guide for Smaller Vermont Businesses

January 2017

PLEASE READ

This handbook is intended for use as a guidance document only. It is to be used as a reference to the basic requirements of the Vermont **Hazardous Waste Management Regulations** (Regulations) as they apply to conditionally exempt generators of hazardous waste. Persons using this document should clarify questions by either reviewing the appropriate sections of the Regulations or contacting the Waste Management & Prevention Division.

The current Regulations (effective March 15, 2013) are available on-line at:

http://dec.vermont.gov/waste-management/hazardous/regulations

Each subchapter / appendix of the Regulations is posted on-line as a separate document that may be viewed or printed separately.

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Regulatory Background

The Vermont Hazardous Waste Management Regulations (Regulations) are administered by the Waste Management and Prevention Division of the Department of Environmental Conservation. The Regulations, which are based on the federal hazardous waste regulations, provide a regulatory "cradle-to-grave" framework for managing hazardous waste in Vermont. In essence, the Regulations identify the wastes that are regulated as hazardous, and establish management standards for the businesses, municipalities and other organizations (hereafter referred to simply as "businesses") that generate, transport, treat, store or dispose of them.

This handbook provides a general overview of the hazardous waste management requirements that apply to "Conditionally Exempt Generators" (CEGs), businesses that tend to be small, produce or "generate" limited amounts of hazardous waste, and are consequently subject only to basic waste handling requirements. This handbook also provides an overview of the handling requirements that apply to CEGs for **used oil** and **universal waste** (refer to page 5).

Do I Generate Hazardous Waste?

Everyone knows that some businesses generate hazardous waste (e.g., dry cleaners, electroplaters, auto body shops). For other businesses, hazardous waste generation may be a little less obvious. For example, most people do not think of food product manufacturers, educational institutions, and retail stores as producing hazardous waste. Upon closer examination, however, these businesses often do generate hazardous wastes through fleet maintenance, grounds-keeping, painting, and other facility maintenance activities.

What is a Hazardous Waste Generator?

The Regulations define a "generator" as any person, by site, whose act or process produces hazardous waste or whose act first causes hazardous waste to become subject to regulation. Since household waste is exempt from regulation, only businesses, municipalities and other organizations that produce hazardous waste are subject to regulation as generators.

> Although household waste is exempt from the Regulations, waste generated by a business operated out of a home is not exempt.

Generators are regulated based on the type(s) and quantity of hazardous waste produced on the contiguous property where their business is located. If a business operates (and generates hazardous waste) at more than one location, each property or "site" is regulated as a separate generator.

In Vermont, generators are grouped into three categories based on the type(s) and quantity of hazardous waste generated per month, as well as the total quantity of waste accumulated on-site.

Conditionally Exempt Generators (CEGs) produce the least amount of hazardous waste, and consequently are subject to the fewest and most flexible regulations. **Small Quantity Generators** (SQGs) and **Large Quantity Generators** (LQGs) produce larger amounts of hazardous waste and are subject to more stringent regulations with fewer disposal options.

What is Hazardous Waste?

In general, waste is regulated as hazardous waste if it is specifically **"listed"** in the Regulations, or if it exhibits one or more of four hazardous waste **"characteristics"** (i.e., ignitability, corrosivity, reactivity, or toxicity).

All hazardous wastes are identified by a four-character "hazardous waste code" that consists of one or two letters followed by two or three numbers (e.g., F005, VT02, D018). The general categories of hazardous waste, along with examples and their corresponding codes, are as follows:

Listed wastes:

The five categories of listed hazardous waste are identified below. In Vermont, the "VT" and "F" wastes are more common than the "K," "P" and "U" wastes.

- *Vermont-listed wastes* ("VT" wastes). Vermont regulates eight specific wastes that are not regulated by the federal Environmental Protection Agency (EPA). Vermont-listed hazardous wastes include: wastes with >50 parts per million PCBs (VT01); wastes with >5% by weight petroleum distillates (VT02); water-soluble metal working fluids (VT03); pesticides that are not federally regulated (VT06); antifreeze (ethylene glycol) (VT08); corrosive solids (VT20); liquid wastes containing perfluorooctanoic acid (PFOA) in concentrations equal to or greater than 20 parts per trillion (VT21); and liquid wastes containing perfluorooctanesulfonic acid (PFOS) in concentrations equal to or greater than 20 parts per trillion (VT22). *A full description of each Vermont-listed hazardous waste is provided in* ***Appendix A of this Handbook****.*

- *Wastes from non-specific sources* ("F" wastes). There are 28 "F"-listed wastes produced by general (non-specific) processes. Examples include "spent halogenated solvents" (F001, F002); "spent non-halogenated solvents" (F003, F005); and "electroplating solutions and treatment sludges" (F006).

Vermont CEGs rarely generate the "K," "P" or "U" wastes listed below:

- *Wastes from specific sources ("K" wastes).* Appendix I of the Regulations lists many hazardous wastes that result from specific processes (e.g., K001: Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol).

- *Acutely hazardous wastes ("P" wastes).* Appendix IV of the Regulations lists the many compound-specific acutely-hazardous wastes. More protective management standards apply to acutely hazardous wastes and to empty containers which have held acute wastes.

- *Discarded Commercial Chemical Products ("U" wastes).* Appendix III of the Regulations lists these compound-specific wastes.

Characteristic wastes ("D" wastes)**:**

Ignitable waste (identified by the D001 code) is 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. Examples of the more common category of ignitable liquid waste include some petroleum-based parts cleaning solvents and solvent-based paints.

Corrosive waste (identified by the D002 code) is liquid with a pH <2 or ≥12.5; or that corrodes steel at a rate greater than ¼ inch/year. Examples of corrosive wastes are battery acid and caustic drain cleaner.

Corrosive solids are regulated as a "Vermont-listed waste" and are identified by the VT20 code.

Reactive waste (identified by the D003 code) may have any of the following properties: is normally unstable; reacts violently with water; forms a potentially explosive mixture with water; can generate toxic gases when mixed with water; is capable of detonation. Examples of reactive wastes include sodium metal, munitions, picric acid, and peroxide formers like diethyl ether.

Toxic wastes (identified by the D004 through D043 codes) are wastes that are capable of leaching one or more of 40 specific contaminants to groundwater. The list of contaminants includes eight metals (including arsenic, chromium, mercury, and lead), six pesticides, and 26 organic compounds (including benzene, which is a component of gasoline). A waste exhibits the toxicity characteristic if, when tested using the Toxicity Characteristic Leaching Procedure (TCLP), is found to contain any one of the 40 contaminants in excess of the "Regulatory Level" specified in the Regulations.

What is Used Oil and how is it Regulated?

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

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

Although used oil is exempt from regulation as hazardous waste under **Section 7-203(n)**, it is subject to the **Used Oil Management Standards** found in **Subchapter 8 of the Regulations**. For more information about used oil management, refer to the *Used Oil* and *Used Oil Burning* fact sheets that are included as **Appendices C and D of this Handbook**.

What is Universal Waste and how is it Regulated?

Universal wastes are low-risk wastes that are generated by a wide variety and large number of generators, and that are not exclusive to a specific industry or group of industries. Wastes that can be managed as universal wastes in Vermont include: **batteries, certain pesticides, mercury thermostats, PCB-containing fluorescent light ballasts, lamps, mercury-containing devices** (e.g., mercury switches), **cathode ray tubes** (e.g., computer monitors and TV screens), and **postconsumer paint**.

Although exempt from regulation as hazardous waste under **Section 7-203(s)**, universal wastes are subject to the streamlined **Universal Waste Management Standards** found in **Subchapter 9 of the Regulations**. For more information about universal waste management, refer to the *Universal Waste* fact sheet that is included as **Appendix E of this Handbook**.

HINT: Most hazardous wastes generated by Vermont small businesses are "VT-listed," "F-listed," or exhibit a hazardous waste characteristic. Some common examples include waste paint thinner, vehicle maintenance fluid, and oily debris. A list of common small business activities and some corresponding hazardous wastes is included as **Appendix B of this Handbook.**

How Do I Determine if My Waste is Hazardous Waste?

Any waste that is to be disposed of must be evaluated to determine if it is hazardous waste. To begin this hazardous waste determination process, it is helpful for a business to prepare a list of *all* wastes generated at its facility.

HINT: When preparing a list of waste, consider:

- ✓ Process wastes, manufacturing by-products, and spent laboratory chemicals
- ✓ Maintenance wastes, including spent sorbents, used oils, spent lamps, mercury-containing devices and parts washing solvent (even if the parts washing unit is maintained by a different company)
- ✓ Out-dated or otherwise un-needed chemicals or raw materials
- ✓ Spill cleanup material and contaminated debris (including oily debris)
- ✓ Emission-control dust and boiler blow-down water

For each waste generated, determine if the waste is hazardous according to the following procedure:

1) Determine if the waste meets any of the exemptions included in **Sections 7-203 and 7-204 of the Regulations**. Note that many of the **Section 7-203** exemptions require that specific management conditions be met; the **Section 7-204** exemptions are all conditioned upon reuse or recycling. A list of commonly used exemptions is included in **Appendix F of this Handbook**.

EXAMPLES of hazardous waste exemptions include: water-miscible metal working fluids, used oil, oil filters, oily rags and wipers that are commercially laundered, used chlorofluorocarbon (CFC) refrigerants, scrap metal, lead-acid batteries, antifreeze, and universal waste (e.g., batteries, thermostats, fluorescent lamps, cathode ray tubes, mercury-containing devices, and postconsumer paints).

2) If the waste is not exempt, the next step is to determine if it is "listed" as hazardous waste (i.e., is assigned a "VT," "F," "K," "P," or "U" code). Keep in mind that Vermont CEGs rarely generate "K," "P" or "U" listed wastes.

3) If the waste is not listed, the generator must then determine if the waste exhibits any of the four hazardous waste "characteristics" (i.e., ignitability, corrosivity, reactivity, and toxicity).

To determine if a waste meets a listing or exhibits a hazardous waste characteristic, a generator can use either **knowledge of the process** that produces the waste or **laboratory testing**. In order for a generator to use process knowledge, sufficient information (such as that provided on manufacturer labels or Safety Data Sheets corresponding to raw materials or products used in the process) must be considered and available for review. If sufficient information is not available to make a hazardous waste determination, it may be necessary to have a sample of the waste analyzed by a laboratory.

HINT: Since testing can be expensive, it is important to provide the laboratory with as much information as possible about the waste; this will enable the laboratory to perform only those tests necessary to determine if the waste is hazardous waste. For example, if you know that arsenic is the only potentially hazardous contaminant in a waste, there is no need to test for other contaminants. Environmental laboratories can be found with an online search using key words such as "environmental testing Vermont."

A generator can choose to assume that a waste exhibits a hazardous waste characteristic without knowing if the waste actually meets the criteria of ignitability, reactivity or corrosivity, or if the concentration of a suspected contaminant actually exceeds toxicity characteristic limits. A generator may not, however, manage a waste as non-hazardous without establishing, through process knowledge or testing, that the waste does not exhibit a hazardous waste characteristic.

For assistance in making hazardous waste determinations, contact:

- ✓ Vermont's Hazardous Waste Management Program. This program (within the Waste Management and Prevention Division) has technical specialists that can answer questions about all aspects of hazardous waste management, and can be reached during regular working hours at (802) 828-1138.

- ✓ Vermont's Small Business Compliance Program. This non-regulatory environmental compliance and technical assistance program (within the Environmental Assistance Office) assists Vermont's regulated community in achieving compliance with environmental regulations and promoting cooperation between the Department of Environmental Conservation (DEC) and the regulated community, and can be reached at 1-800-974-9559.

- ✓ Chemical Manufacturers and Suppliers, who are required by law to provide their customers with Safety Data Sheets or SDS (formerly known as Material Safety Data Sheets) for the chemical products they sell. SDSs provide information about the hazardous constituent(s) contained in a chemical product, the health and safety hazards posed by the product, and applicable *federal* regulations. SDSs do not provide information about applicable state regulations, or wastes generated through use of the

product (e.g., an SDS for parts washing fluid does not include information about contaminants such as metals that may be introduced by the parts washing process.).

- ✓ Trade Associations. National, regional or state-wide trade organizations (e.g., auto dealers, wood product manufacturers, drycleaners, ski areas) may be able to provide information about specific hazardous waste management issues that are of interest to their members.

> ***HINT:*** Although manufacturers, suppliers and trade associations may be able to provide some assistance when making waste determinations, they often are familiar only with the federal hazardous waste regulations. They typically are not able to provide reliable information about applicability of the Vermont Regulations or Vermont-listed hazardous wastes ("VT" wastes).

Determining Generator Status

After determining which wastes are hazardous, a business must determine its generator status. As discussed later (see page 10), generators are required to notify Vermont's Hazardous Waste Management Program of their generator status using the **Vermont Hazardous Waste Handler Site ID form** which is available online at:

http://dec.vermont.gov/waste-management/hazardous/administrative/epa-site-identification-numbers

The generator status of a facility (i.e., CEG, SQG or LQG) is determined based on:

1) the total quantity (by weight) of hazardous waste generated at the facility *per month*; and

2) the total amount of hazardous waste accumulated on-site at any given time.

Some Key Considerations when Calculating Generator Status:

- ✓ Exempt wastes don't count toward generator status.

- ✓ Generator status is determined based on the amount of hazardous waste *generated per month*, and not the amount of hazardous waste shipped in a particular month.

- ✓ Generator status is determined based on the amount of hazardous waste generated *at a specific site*.

- ✓ ***For Vermont-listed hazardous wastes only*** ("VT" wastes), a generator can average the amount of that waste generated over a six-month period and use that average value when calculating generator status.

  For example, if a business generates 600 pounds of oily absorbents (VT02) in January, but none in February, March, April, May and June, the generation rate for that waste for the purpose of generator status is 100 pounds per month.

- ✓ Any hazardous waste that is reclaimed and subsequently reused on-site only needs to be counted as being generated one time.

- ✓ Because **used oil** and **universal wastes** (i.e., batteries, certain pesticides, mercury thermostats, PCB-containing fluorescent light ballasts, lamps, mercury-containing devices, CRTs, and postconsumer paints) are exempt, they should not be counted when calculating generator status.

Appendix G of this Handbook outlines the generation rates and accumulation limits for each generator status category (i.e., CEG, SQG and LQG), and compares the basic regulatory requirements that apply to each category.

EXAMPLE: A business that generates 100 pounds of oily absorbent (VT02), 25 pounds of spent paint thinner (F003), and 70 pounds of spent naphtha parts washing solvent (D001) in one month generates a total of 195 pounds of hazardous waste in that month (assume that 100 pounds of the VT02 waste is generated each month). When this monthly generation rate is compared to **Appendix G**, the business owner would find that the facility is subject to regulation as a CEG. However, if more than 2,200 pounds of hazardous waste is accumulated at the facility, the business would be subject to regulation as an SQG because it exceeds the maximum amount that a CEG can store at any one time.

What is a Conditionally Exempt Generator?

<u>To be conditionally exempt, a generator must:</u>

- ➢ generate less than 220 pounds of *hazardous waste* per month; and

- ➢ have accumulated less than 2,200 pounds of *hazardous waste*.

To be conditionally exempt, any generator of ***acutely hazardous waste*** *(i.e., "P-listed" hazardous waste) must also:*

- generate less than 2.2 pounds of ***acutely hazardous waste*** per month; and

- generate less than 220 pounds of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a discharge of any ***acutely hazardous waste*** per month; and

- have accumulated less than 2.2 pounds of ***acutely hazardous waste***, or 220 pounds of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a discharge of any **acutely hazardous waste** at any time.

If a business exceeds these limits, that business would be regulated as either a Small Quantity Generator (SQG) or a Large Quantity Generator (LQG).

HINT: For comparison purposes, ½ of a 55-gallon drum of water weighs about 230 pounds, and five 55-gallon drums of water weigh about 2,300 pounds, amounts that are slightly more than the generation and accumulation limits for CEGs. Keep in mind that the density of each type of hazardous waste will likely differ from that of water. For example, contaminated paint filters may weigh as little as 60 pounds per 55-gallon drum, while oily absorbents may weigh as much as 800 pounds per 55-gallon drum.

What Requirements Apply to Conditionally Exempt Generators?

Conditionally exempt generators may accumulate hazardous waste on-site for as long as they choose provided the generation and accumulation quantity limits identified above for CEGs are not exceeded.

Although CEGs are exempt from many of the requirements that larger generators (i.e., SQGs and LQGs) must meet, CEGs still must:

- ✓ Complete and submit an up-to-date **Vermont Hazardous Waste Handler Site ID form** to Vermont's Hazardous Waste Management Program. Upon submitting a completed Site ID form, the generator's site is assigned a permanent identification number (called an EPA ID number). If a business handles hazardous waste at more than one location, a separate Site ID form must be completed for each site.
- ✓ Conduct hazardous waste operations in a manner that minimizes the possibility of fire, explosion, or release of hazardous waste to the environment. (Although not required, it is recommended that CEGs periodically inspect hazardous waste containers for leaks.)

Vermont Hazardous Waste Handler Site ID forms are available from the Waste Management and Prevention Division by calling (802) 828-1138. The Site ID form and instructions are also posted on-line at:
http://dec.vermont.gov/waste-management/hazardous/administrative/epa-site-identification-numbers

- ✓ Accumulate and store hazardous waste upon an impervious surface (away from floor drains) and within a structure that sheds rain and snow.

- ✓ Accumulate and store hazardous wastes that are subject to freezing and expansion in a heated space.

- ✓ Manage containers holding hazardous waste as follows:

    - containers must remain closed, except when adding or removing waste;

    - containers must be in good condition and chemically compatible with any waste put in them; hazardous waste must not be put into an unwashed container that previously held an incompatible waste or material;

    - incompatible wastes must <u>not</u> be placed in the same container (examples of incompatible wastes are listed in **Appendix VII of the Regulations**);

    - containers must be marked with the words "Hazardous Waste" and other words to identify the contents (e.g., “oily debris” or “solvent”);

    - containers must <u>not</u> be opened, handled or stored in a manner which could cause them to rupture or leak; and

    - if a container holding hazardous waste is not in good condition, or if it begins to leak, the waste must be transferred to a container that is in good condition, or the initial container must be placed into a larger container.

- ✓ Keep hazardous waste separated from any incompatible waste or material stored nearby by means of a berm, wall, or other device.

- ✓ As required in Section 7-105 of the Regulations, in the event of a hazardous waste spill or release to the environment:

    - Take immediate actions to contain the spill or release;

    - Immediately report (see below) any spill or release of more than two gallons, or of a lesser amount that poses a threat to human health or the environment; and

- If requested by the Waste Management and Prevention Division, submit a written report within ten (10) days following the spill or release.

To report a spill or release, contact the Waste Management and Prevention Division at **(802) 828-1138** (during regular business hours), or the Vermont Division of Emergency Management and Homeland Security at **(800) 641-5005 (**24 hours/day, seven days/week).

Transporting Conditionally Exempt Generator Hazardous Waste

A CEG can **self-transport** his or her own hazardous waste to an appropriate off-site facility or household hazardous waste/CEG collection event without using a hazardous waste manifest (shipping document), and without meeting permitting requirements for hazardous waste transporters, provided the following requirements are met:

- ✓ applicable (federal) Department of Transportation regulations;
- ✓ applicable regulations of other states through which the waste is transported or to which the waste is delivered;
- ✓ the waste is transported in a vehicle that is owned by the CEG or an employee of the CEG; and
- ✓ in the event of a discharge of hazardous waste to the environment, the same emergency action and reporting requirements listed above under CEG requirements apply.

A CEG may also **hire a permitted hazardous waste transporter** to transport its waste to an appropriate off-site facility. A list of permitted hazardous waste transporters may be obtained from the Waste Management and Prevention Division by calling (802) 828-1138. The list of permitted transporters is also available on-line at:

http://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/AllWasteTransportersList.pdf

Off-Site Hazardous Waste Disposal Options for CEGs

CEGs can manage their own hazardous waste by any one of the following methods:

- ✓ Deliver the waste to a certified hazardous waste Treatment, Storage or Disposal facility.

- ✓ Deliver the waste to a collection event authorized by the Waste Management and Prevention Division to accept CEG waste (e.g., events sponsored by Vermont Solid Waste Districts, Planning Commissions and Alliances). A list of Vermont's Solid Waste Districts, Planning Commissions and Alliances is included as **Appendix H of this Handbook**; an updated version of this list, including additional contact information, is available on-line at:

  http://dec.vermont.gov/waste-management/solid/local-districts

- ✓ Deliver the waste to a certified solid waste management facility allowed to accept such waste under the terms of its certification.

- ✓ Deliver the waste to a facility which uses, reuses, recycles or reclaims the waste.

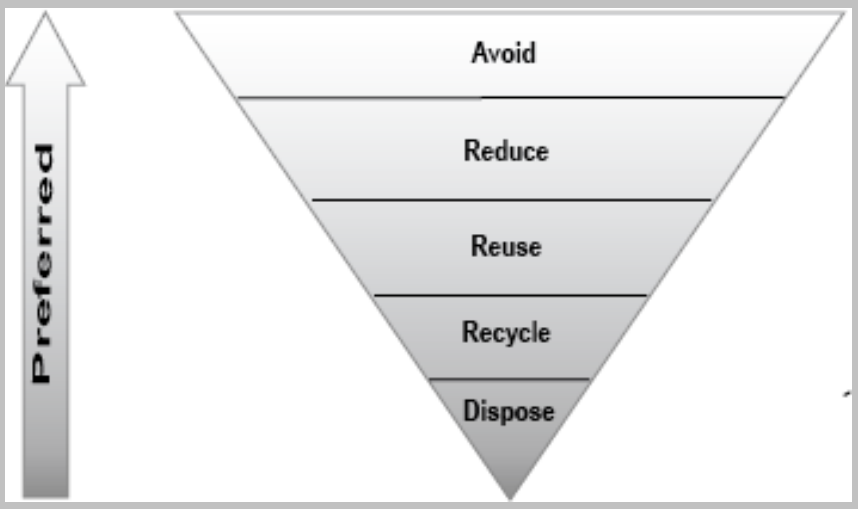
- ✓ Deliver the waste to another facility located in Vermont that is owned and operated by the same owner/operator (as the CEG that generated the waste) and that meets either the SQG or LQG standards in the Regulations. For example, the Acme Trucking Company can bring waste from one of its district facilities to its main garage, provided the district facility is a CEG and the main garage is in compliance with either SQG or LQG requirements.

It Makes Sense to Generate Less Hazardous Waste!

Businesses can save money and lessen their regulatory obligations by reducing the amount of waste that they generate. In the United States, billions of dollars are spent each year managing hazardous wastes and cleaning up contamination that results from the mismanagement of hazardous materials. By decreasing the amount and toxicity of the waste that is generated, each business can realize the immediate benefit of decreased waste management costs and environmental liability, while at the same time doing its part to minimize public and private expenditures for environmental cleanup.

Consider the *waste management hierarchy* when making decisions about how to manage hazardous waste (most desirable to least desirable):

Waste Management Hierarchy:



Avoid: Substitute less toxic materials for hazardous materials to avoid unnecessary waste generation.

- Purchase and use less toxic products or alternative products with less hazardous constituents.
- Avoid generating unnecessary waste by not overstocking materials that may expire before they are used; keep an inventory of products.

Reduce: Minimize excess materials and excess consumption.

- Ensure product and waste container lids and caps are closed between uses to reduce chance of evaporation, spills and drips.
- Train employees to use only the quantity of material needed to complete a job (e.g., when products are mixed, measure the quantity of each material needed and specify those quantities for mixing in the future).

- Provide additional training to spray gun operators to minimize the amount of overspray in coating operations.
- Manage hazardous and non-hazardous wastes separately. If hazardous waste is mixed with non-hazardous waste, the combined waste is usually considered hazardous.

Reuse: Prevent waste generation by reusing materials as many times, and in as many ways, as possible.

- Use absorbent clean-up materials until they are fully saturated.
- Improve housekeeping methods. For processes that utilize dip tanks or automated spray equipment, arrange equipment so that the fluids/coatings drains/drips are caught for reuse.
- Reuse solvent waste from one process in another operation where solvent quality is less critical such as parts washing.
- Used gear-box and hydraulic oils can be used to lubricate chains and conveyors.

Recycle: In some cases, hazardous wastes may be processed to reclaim spent materials**.**

- Recycle antifreeze by filtration and/or reconditioning
- Recycle solvent waste by filtration or distillation.

Note: Any recycling activity that involves processing of a waste prior to reuse is considered generator treatment for which notification is required. The Generator Treatment Notification form can be found here: http://dec.vermont.gov/sites/dec/files/wmp/HazWaste/Documents/Forms/GenTreatmentForm.pdf

Disposal: The least desirable method of managing hazardous waste is disposal. It generally is quite expensive and represents potential liability to the generator for an indefinite period of time.

The **Environmental Assistance Office** provides free, confidential assistance to businesses to help identify chemical use and hazardous waste reduction opportunities. In Vermont, you may contact this non-regulatory office by calling **1-800-974-9559**.

APPENDIX A

HAZARDOUS WASTE CODES COMMONLY USED BY CEGS:

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 Waste 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 100ºF, 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.

VT21 Liquid wastes containing perfluorooctanoic acid (PFOA) in concentrations equal to or greater than 20 parts per trillion.

VT22 Liquid wastes containing perfluorooctanesulfonic acid (PFOS) in concentrations equal to or greater than 20 parts per trillion.

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

APPENDIX B

REGULATED WASTES FROM COMMON SMALL BUSINESS ACTIVITIES

AUTO BODY SHOPS:

- ✓ waste paint, solvents, spray booth filters, solvent still bottoms, and overspray

DENTAL OFFICES:

- ✓ silver-bearing x-ray wastes
- ✓ dental amalgams

DRY-CLEANING:

- ✓ perchloroethylene still bottoms, filters, and lint
- ✓ separator water
- ✓ petroleum solvent still bottoms, filters, and lint

EDUCATIONAL INSTITUTIONS:

- ✓ silver-bearing dark-room wastes
- ✓ outdated laboratory chemicals
- ✓ laboratory wastes
- ✓ waste paints and paint solvents
- ✓ parts washing solvents and degreasers
- ✓ waste oil, oily absorbents, unused pesticides
- ✓ fluorescent lamps, computer monitors

FURNITURE / WOOD PRODUCTS MANUFACTURE:

- ✓ wood finishing wastes (stains, paints, penetrating oils, and solvent-based coatings)
- ✓ machine maintenance wastes (waste oils, oily absorbents)
- ✓ spray booth wastes
- ✓ waste resin and glue

LABORATORIES:

- ✓ spent solvents
- ✓ acids and bases
- ✓ chemical laboratory waste
- ✓ unused reagents & outdated chemicals
- ✓ contaminated absorbents
- ✓ test samples

LOGGING / SAW MILLS:

- ✓ oily wastes
- ✓ waste hydraulic fluid and contaminated debris
- ✓ wood preserving wastes (pentachlorophenol, creosote, and arsenic solutions)

METAL FABRICATION / METAL FINISHING:

- ✓ cutting oils, water-based coolants
- ✓ parts washing solvents and degreasers
- ✓ waste paints and thinners, still bottoms
- ✓ waste plating solutions
- ✓ corrosive (acid or alkaline) wastes
- ✓ sludge and swarf

PRINTING / PHOTO PROCESSING:

- ✓ waste inks and clean-up materials
- ✓ press cleaning solvents and solutions
- ✓ waste oils and oily absorbents
- ✓ plate making chemicals
- ✓ silver-bearing dark-room wastes

VEHICLE MAINTENANCE:

- ✓ spent parts washing / degreasing solvent
- ✓ spent antifreeze
- ✓ used oil, oil filters, oily absorbents
- ✓ waste fuel and fuel filters
- ✓ lead acid batteri

VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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 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 can used oil be stored?

Used oil may 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 may 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) 828-1138 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 & Prevention 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 & Prevention 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 & Prevention Division
1 National Life Drive – Davis 1
Montpelier, VT 05620-3704
802-828-1138

Environmental Assistance Office
1 National Life Drive – Main 2
Montpelier, VT 05620-3804
800-974-9559

Burning Used Oil Fuel

In Vermont, used oil may be burned as fuel provided certain minimal requirements are met. These include labelling containers with the words "Used Oil Fuel", basic testing requirements to determine if the oil is appropriate for burning, and other container management standards summarized in the "Used Oil" fact sheet and found in the Vermont Hazardous Waste Management Regulations (VHWMR) Section 7-806.

This fact sheet summarizes the requirements applicable to burning *"specification"* used oil fuel in *"small fuel burning equipment"* (i.e., equipment that has been designed specifically for burning used oil fuel), an activity that is exempt from Vermont's Air Pollution Control Regulations (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.

What is specification used oil fuel?

Specification used oil fuel meets the "allowable" constituent and property levels identified in Table 1. While used oil that exceeds one or more of the Table 1 specifications may still be managed according to the VHWMR Subchapter 8 Used Oil Management Standards, it must either be burned as off-specification used oil or recycled in some other manner (e.g., re-refined).

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

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

It is space heating equipment defined as having a maximum operating heat input equal to or less than 500,000 BTU/hr.

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); and
- No more than one space heater is connected to an above-ground storage tank.

Continued ►

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

No. The types of used oil that may be burned in small fuel burning equipment are limited to vehicle crankcase, transmission fluid, hydraulic and machine gearbox oil that meet the Table 1 specifications. Other types of used oil (e.g., compressor oil, petroleum-based power steering fluid, metal working fluids) may be burned as fuel only after approval is granted by the Waste Management & Prevention Division. Approval is based on product information provided on the safety data sheet (SDS) and a description of the process generating the used oil.

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

- Facilities 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 prior to accepting it. 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 & Prevention 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.

- Facilities 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 prior to accepting the material; 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 (or to provide notification) to burn used oil fuel in small fuel burning equipment?

No permit is required to burn specification used oil fuel. Moreover, facilities that burn specification used oil fuel and that do not generate any hazardous waste (e.g., oily absorbents or debris) are not required to notify the Waste Management & Prevention Division of this activity.

Continued ►

Can I burn used oil fuel that I did not generate?

Yes. In addition to burning used oil fuel that is generated on-site, burners may accept used oil fuel 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.

Can used oil fuel be transported by either the burner or the generator?

Yes. Not permit or certification is required under the VHWMR to transport used oil fuel, nor is there a limit imposed on the quantity shipped at any one time. However, in all cases the transportation of used oil fuel must be in accordance with applicable DOT (Department of Transportation) requirements, including those for placarding.

What records must be maintained?

When used oil fuel is received from other businesses or municipalities, the burner must retain records for three years which document:

- ✓ the quantity of used oil fuel accepted;
- ✓ specification testing results; and
- ✓ the name, address, and telephone number of the facility from which used oil fuel is accepted.

When used oil fuel is only generated on-site (or received from do-it-yourselfers), the burner need only retain specification testing results.

For more information contact:

Vermont Department of Environmental Conservation:

Waste Management & Prevention Division
1 National Life Drive – Davis 1
Montpelier, VT 05620-3704
802-828-1138

Environmental Assistance Office
1 National Life Drive – Main 2
Montpelier, VT 05620-3804
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),
- **cathode ray tubes** (e.g., color computer monitors and TV screens), and
- **postconsumer paint** (e.g., unused oil and latex architectural paint).

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 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, mercury-containing devices, or postconsumer paint calculated collectively), and who does not accumulate 36,288 kilograms (40 tons) or more of CRTs, at any time.*

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 waste in a way that prevents breakage and releases to the environment.
- Keep containers of universal waste closed.
- Immediately contain and transfer any universal waste that shows 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 waste 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 transporting solid waste for compensation, 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
1 National Life Drive – Davis 1
Montpelier, VT 05620-3704
802-828-1138

Environmental Assistance Office
1 National Life Drive – Main 2
Montpelier, VT 05620-3804
800-974-9559

APPENDIX F

COMMONLY USED EXEMPTIONS:

The following exemptions were identified by Vermont's Hazardous Waste Program staff as those most relevant to conditionally exempt generators (CEGs). For a complete list of exemptions, refer to sections 7-203 and 7-204 in subchapter 2 of the Vermont Hazardous Waste Management Regulations.

§ 7-203 CONDITIONAL EXEMPTIONS

The following wastes are exempted from the provisions of these regulations:

(a) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused.

(l) Water-miscible metal cutting and grinding fluid waste that does not exhibit a characteristic of hazardous waste as defined in **§§ 7-205 through 7-208** provided:

(1) It is recycled or treated on-site (e.g., centrifugation, evaporation, filtration and ultrafiltration) or sent off-site for treatment; and

Note: Evaporation equipment must be approved in accordance with Vermont's Air Pollution Control Regulations.

(2) Containers and/or tanks holding water-miscible metal cutting and grinding fluid are:

(A) Marked with words that identify the contents;
(B) Kept closed except to add or remove spent material;
(C) In good condition (i.e., no severe rusting, apparent structural defects or deterioration);
(D) Stored on an impervious surface, and if stored out-of-doors, within a structure that sheds rain and snow; and

(3) If the waste is subject to freezing and expansion, mechanical or physical means are employed to prevent freezing; and

(4) Any residue resulting from on-site recycling or treatment is managed either as used oil in accordance with the requirements of **subchapter 8**, or in accordance with applicable hazardous waste management requirements of **subchapters 1 through 7**; and

(5) Any water resulting from on-site treatment is discharged in accordance with **10 V.S.A. chapter 47** (for indirect injection well, and direct discharges) and **chapter 48** (for groundwater protection); and

(6) Any water-miscible metal cutting and grinding fluid waste sent off-site for treatment are offered for transport only to a transporter permitted according to the requirements of **subchapter 4**.

(n) Used oil that meets the criteria of the VT02 hazardous waste code and/or exhibits a hazardous waste characteristic, is not subject to the requirements of **subchapters 3 through 7** of these regulations, but is subject to the Used Oil Management Standards of **subchapter 8**.

Note: Pursuant to **10 V.S.A. § 6621a**, no person shall knowingly dispose of used oil in a landfill.

(o) Non-terne plated used oil filters that are not mixed with wastes listed in **§§ 7-210 through 7-215** if:

(1) These oil filters have been gravity drained using one of the following methods:

(A) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
(B) Hot-draining and crushing;
(C) Hot-draining and dismantling; or
(D) Any other equivalent hot-draining method that will remove used oil; or
(E) Draining and crushing using a mechanical, pneumatic, or hydraulic device designed for the purpose of crushing oil filters and effectively removing the oil; and

(2) All drained oils are collected and managed subject to these regulations.

Note: The Agency recommends that drained oil filters be recycled as scrap metal.

(p) Petroleum contaminated soil provided:

(1) The soil does not exhibit a characteristic of hazardous waste as defined in **§§ 7-205 through 7-208**, with the exception that soil subject to the corrective action requirements of **40 CFR Part 280** is not subject to regulation as hazardous waste solely for the waste codes of D018 through D043 of **§7-208**; and

(2) The soil does not contain waste listed in **§§ 7-210 through 7-215,** with the exception that soil may contain waste identified by the VT02 hazardous waste code; and

(3) The soil is evaluated by field screening, review of any available information about the contaminant (e.g., materials safety data sheet information) and, if necessary, laboratory analysis and/or testing to establish the type and concentration of the contaminant(s) present; and

Note: Field screening and laboratory analysis or testing must be conducted by an independent professional consulting firm or laboratory using a method or methods that are either identified under **§ 7-219** of these regulations or that are otherwise approved by the Secretary.

(4) The soil is managed (e.g., assessed, monitored, excavated, stored, treated, transported, or stockpiled) in a manner that is protective of human health and the environment (refer to **Chapter 3** of the Agency's "**Investigation and Remediation of Contaminated Properties Procedure"** which is available from the Secretary upon request).

(q) Industrial discharges in compliance with **10 V.S.A. chapter 47**. This exemption applies only to the actual point source discharge. It does not exclude wastewaters while they are being collected, stored, or treated before discharge nor does it exclude sludges that are generated by industrial wastewater treatment.

(r) Pesticidal wastes that are both generated and disposed of by the same farmer provided:

(1) The emptied pesticide container is triple-rinsed in accordance with the provisions of **subsection (j) of this section**; and

(2) The pesticide residues are disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label.

(s) The wastes listed below are exempt from regulation under **subchapters 1 through 7** of these regulations except as specified in **subchapter 9** of these regulations. The following wastes are subject to regulation as universal wastes under subchapter 9:

(1) Batteries as described in **§ 7-902**;
(2) Pesticides as described in **§ 7-903**;
(3) Thermostats as described in **§ 7-904**;
(4) PCB-containing fluorescent light ballasts as described in **§ 7-905**;
(5) Lamps as described in **§ 7-906**;
(5) Mercury-containing devices as described in **§ 7-907**; and
(7) Cathode ray tubes (CRTs) as described in **§ 7-908**.

(t) PCB-containing dielectric fluid and, with the exception of fluorescent light ballasts, electric equipment containing such fluid authorized for use and regulated under **40 CFR Part 761** of the Toxic Substances Control Act and that are hazardous only because they either meet the criteria of the VT01 hazardous waste identification code or fail the test for the Toxicity Characteristic (hazardous waste codes D018 through D043 only). This exemption is not applicable to waste contaminated with PCB-containing dielectric fluid.

(v) Waste which consists of discarded arsenical-treated wood or wood products which fails the test for the toxicity characteristic for hazardous waste codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(w) Used oil contaminated rags or wipes that do not exhibit a hazardous waste characteristic provided:

(1) The rags or wipes are picked up and cleaned under a contractual agreement with a commercial laundering service;
(2) Free liquid is not present in the rags or wipes as per test method 9095 of EPA Publication SW 846 (the paint filter liquids test); and
(3) Prior to being picked up by the launderer, the rags or wipes are accumulated and stored on-site in containers that are:
(A) Marked with words that identify the contents as used rags or wipes destined for laundering;
(B) Kept closed except to add or remove spent material;

Note: If a bag is used to accumulate and/or store used oil contaminated rags or wipes, it must be kept in a closed container.

(C) In good condition (i.e., no rips, tears, severe rusting, apparent structural defects or deterioration); and
(D) Stored on an impervious surface, and if stored out-of-doors, within a structure that sheds rain and snow.

(x) Reusable absorbent material contaminated with used oil that does not exhibit a hazardous waste characteristic provided that:

(1) The contaminated absorbent material is processed and reused on-site, any residual material that results from processing is managed in accordance with these regulations, and any contaminated water resulting from on-site processing is discharged in accordance with **10 V.S.A. chapter 47** (for indirect injection well, and direct discharges) and **chapter 48** (for groundwater protection); and

(2) Prior to being processed, the absorbent materials are accumulated and stored on-site in containers that are:

(A) Marked with words that identify the contents;
(B) Kept closed except to add or remove spent material;
(C) In good condition (i.e., no severe rusting, apparent structural defects or deterioration); and
(D) Stored on an impervious surface, and if stored out-of-doors, within a structure that sheds rain and snow.

§ 7-204 RECYCLING EXEMPTIONS

The following wastes are exempted from the provisions of these regulations if they are recycled as specified:

Note: Refer to **subchapter 6** for standards applicable to hazardous waste recycling activities not exempted under this section.

(d) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(e) Scrap metal that is recycled.

(f) Spent lead-acid batteries that are reclaimed or regenerated, provided:

(1) Persons who generate or collect spent lead-acid batteries, who regenerate spent lead-acid batteries, or who store spent lead-acid batteries but do not reclaim them (other than spent lead-acid batteries that are to be regenerated) store such batteries under cover on an impervious surface; and
(2) Transport of spent lead-acid batteries is done in compliance with **49 CFR Parts 171 through 177**; and
(3) Owners or operators of facilities which store lead-acid batteries (other than spent lead-acid batteries that are to be regenerated) before reclaiming them comply with the requirements of **40 CFR Part 266, Subpart G**.

(g) Recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these metals provided:

(1) Persons who generate, transport, store or recycle these recyclable materials comply with **40 CFR Part 266, Subpart F**.
(2) Any generator or facility accumulating or storing these recyclable materials from which precious metals are reclaimed comply with any additional standards and requirements specified by the Secretary as necessary to protect human health and the environment. In making such determination, the Secretary shall use the standards and procedures specified in **40 CFR §§ 260.40 and 260.41**.

(h) Intact or shredded circuit boards being recycled provided that they are:

(1) Stored in containers sufficient to prevent a release to the environment prior to recovery; and
(2) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(i) Spent ethylene glycol or water-based ethylene glycol solutions (e.g., antifreeze) that are subject to regulation as hazardous waste for meeting only the criteria of the VT08 hazardous waste code provided that:

(1) The spent ethylene glycol or water-based ethylene glycol solution is recycled for reuse (e.g., filtered) and/or treated for reuse (e.g., additives added); and

(2) Containers and/or tanks used to hold spent ethylene glycol or water-based ethylene glycol solution are:

(A) Marked with words that identify the contents;
(B) Kept closed except to add or remove spent material;
(C) In good condition (i.e., no severe rusting, apparent structural defects or deterioration):
(D) Stored on an impervious surface, and if stored out-of-doors, within a structure that sheds rain and snow; and

(3) If the spent ethylene glycol or water-based ethylene glycol solution is subject to freezing and expansion, mechanical or physical means are employed to prevent freezing; and

(4) Any residue resulting from on-site recycling and/or treatment that is hazardous waste is managed as hazardous waste.

APPENDIX G

REQUIREMENTS FOR LARGE QUANTITY GENERATORS (LQG), SMALL QUANTITY GENERATORS (SQG) AND CONDITIONALLY EXEMPT GENERATORS (CEG) OF HAZARDOUS WASTE IN VERMONT

Selected Regulatory Requirements	LQG	SQG	CEG
File a Vermont Hazardous Waste Handler Site ID Form	yes	yes	yes
Must determine Generator Status	yes	yes	yes
Maximum amount of hazardous waste generated per month *	no limit	2,200 pounds	220 pounds
Maximum amount of hazardous waste that may be stored on-site at any one time *	no limit	13,200 pounds	2,200 pounds
Maximum length of time hazardous waste may be stored on site *	90 days**	180 days**	no limit
Must follow hazardous waste storage requirements, including:			
Keep waste under cover to protect from precipitation	yes	yes	yes
Store waste on impervious surface	yes	yes	yes
Keep waste container(s) closed	yes	yes	yes
Assure waste containers are in good condition	yes	yes	yes
Assure waste containers are compatible with waste	yes	yes	yes
Protect freezable wastes from freezing	yes	yes	yes
Maintain aisle space of 24 inches or greater	yes	yes	no
Post “Danger- Hazardous Waste Storage Area – Authorized Personnel Only” warning sign(s)	yes	yes	no
Post “No Smoking” sign(s) (only if store ignitable waste)	yes	yes	no
Conduct daily inspection of hazardous waste storage area and maintain inspection log	yes	yes	no
Maintain an inventory of hazardous wastes in storage	yes	yes	no
Store ignitable waste at least 50 feet from the property line	yes	yes	no
Must label hazardous waste containers with:			
the words “Hazardous Waste”	yes	yes	yes
words to identify the container’s contents	(accumulating waste only)	(accumulating waste only)	yes

* Generation or storage of more than 2.2 pounds of acutely hazardous waste confers LQG status. Acutely hazardous wastes – identified by the waste code “P” followed by three numbers – are listed in Appendix IV of the regulations.

** Section 7-311(c) of the regulations allows generators to request up to a 30-day extension “due to unforeseen temporary and uncontrollable circumstances,” to be granted at the Secretary’s discretion.

Selected Regulatory Requirements (cont'd)	LQG	SQG	CEG
the words "Federal Law Prohibits Improper Disposal, If found, contact the nearest police or public safety authority or the US Environmental Protection Agency"	yes	yes	no
the generator's name, address and EPA ID number	yes	yes	no
the waste's name and hazardous waste ID number	yes	yes	no
the date that waste was placed into storage	yes	yes	no
Hazardous waste disposal			
Must use a Uniform Hazardous Waste Manifest to ship waste	yes	yes	no
Must ship hazardous wastes with a certified transporter	yes	yes	no
Must comply with Federal land disposal restrictions	yes	yes	no
Must follow emergency preparedness measures			
Report spills or releases of greater than two gallons	yes	yes	yes
Have at least one person on-site or on-call at all times to respond to emergencies	yes	yes	no
Post emergency information near phones where hazardous waste is handled	no	yes	no
Provide hazardous waste training to employees	annually	initial***	no
Provide emergency communication device at hazardous waste storage area(s)	yes	yes	no
Provide fire & spill control equipment	yes	yes	no
Make arrangements with local emergency services	yes	yes	no
Maintain a written contingency plan	yes	no	no
Maintain a written training plan	yes	no	no
Reporting			
Submit biennial report on hazardous wastes generated	yes	no	no
Must certify facility closure if no longer generate hazardous waste	yes	yes	no

REMINDER: The regulations cover each of the requirements listed above in detail. The regulations also address special case situations, such as the import and export of hazardous wastes. The regulations provide a number of conditional exemptions (see Appendix F). When determining generator status, do not include wastes exempted in Sections 7-203 and 7-204 of the regulations.

The Environmental Assistance Division is available to provide free, non-regulatory assistance regarding how to comply with various environmental regulations, as well as in reducing the amount or toxicity of hazardous wastes produced. Go on-line to: http://dec.vermont.gov/environmental-assistance or, in Vermont, call 1-800-974-9559.

***SQG Training Requirement: Ensure that each employee is thoroughly familiar with evacuation signals and routes, and proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations as well as emergencies.

APPENDIX H

VERMONT SOLID WASTE DISTRICTS, PLANNING COMMISSIONS AND ALLIANCES:

ADDISON COUNTY SOLID WASTE MANAGEMENT DISTRICT

http://www.addisoncountyrecycles.org

ADDISON, BRIDPORT, BRISTOL, CORNWALL, FERRISBURGH, GOSHEN, LEICESTER, LINCOLN, MIDDLEBURY, MONKTON, NEW HAVEN, ORWELL, PANTON, RIPTON, SHOREHAM, STARKSBORO, VERGENNES, WALTHAM, WEYBRIDGE, AND WHITING

TOWN OF BARTON

https://sites.google.com/site/townofbarton

CONTACT THE TOWN CLERK

BENNINGTON COUNTY SOLID WASTE ALLIANCE

http://www.bcswavt.org

ARLINGTON, BENNINGTON, DORSET, GLASTENBURY, MANCHESTER, POWNAL, RUPERT, SANDGATE, SEARSBURG, SHARTSBURY, STAMFORD, SUNDERLAND, AND WOODFORD

TOWN OF BURKE

http://burkevermont.org

CONTACT THE TOWN CLERK

TOWN OF CANAAN

http://canaan-vt.org

CONTACT THE TOWN CLERK

CENTRAL VERMONT SOLID WASTE MANAGEMENT DISTRICT

http://www.cvswmd.org

BARRE CITY, BARRE TOWN, BERLIN, BRADFORD, CALAIS, CHELSEA, EAST MONTPELIER, FAIRLEE, HARDWICK, MIDDLESEX, MONTPELIER, ORANGE, PLAINFIELD, TUNBRIDGE, WALDEN, WASHINGTON, WILLIAMSTOWN, WOODBURY

CHITTENDEN SOLID WASTE DISTRICT

http://cswd.net

BOLTON, BUELS GORE, BURLINGTON, CHARLOTTE, COLCHESTER, ESSEX, HINESBURG, HUNTINGTON, JERICHO, MILTON, RICHMOND, ST. GEORGE, SHELBURNE, SOUTH BURLINGTON, UNDERHILL, WESTFORD, WILLISTON, WINOOSKI

TOWN OF COVENTRY

CONTACT THE TOWN CLERK
PO BOX 101
168 MAIN STREET
COVENTRY, VT 05825
(802) 754-2288

TOWN OF FAIRFAX
http://www.fairfax-vt.gov
CONTACT THE TOWN CLERK

GREATER UPPER VALLEY SOLID WASTE MANAGEMENT DISTRICT
http://www.guvswd.org
BRIDGEWATER, HARTLAND, NORWICH, POMFRET, SHARON, STRAFFORD, THETFORD, VESHIRE, WEST FAIRLEE, WOODSTOCK

TOWN OF HARTFORD
http://www.hartford-vt.org
CONTACT THE TOWN CLERK

LAMOILLE REGIONAL SOLID WASTE MANAGEMENT DISTRICT
http://www.lrswmd.org
BELVIDERE, CAMBRIDGE, CRAFTSBURY, EDEN, ELMORE, HYDE PARK, JOHNSON, MORRISTOWN, STOWE, WATERVILLE, WOLCOTT, WORCESTER

TOWN OF LEMINGTON
CONTACT THE TOWN CLERK
2549 RIVER ROAD
LEMINGTON, VT 05903
(802) 277-4814

LONDONDERRY GROUP
http://londonderryvt.org/recycletransfer
LANDGROVE, LONDONDERRY, PERU, WESTON, WINDHAM

TOWN OF LOWELL
CONTACT THE TOWN CLERK
2170 VT ROUTE 100
LOWELL, VT 05847
(802) 744-6559

MAD RIVER RESOURCE MANAGEMENT ALLIANCE
http://www.madriverrma.org
DUXBURY, FAYSTON, MORETOWN, ROXBURY, WAITSFIELD, WARREN, WATERBURY

CITY OF NEWPORT
http://www.newportvermont.org
CONTACT THE CITY MANAGER

NORTHEAST KINGDOM WASTE MANAGEMENT DISTRICT
http://www.nekwmd.org
ALBANY, AVERILL, AVERYS GORE, BARNET, BLOOMFIELD, BRIGHTON, BROWNINGTON, BRUNSWICK, CABOT, CHARLESTON, CONCORD, CORINTH, DANVILLE, DERBY, EAST HAVEN, FERDINAND, GLOVER, GRANBY, GREENSBORO, GROTON, GUILDHALL, HOLLAND, IRASBURG, JAY, KIRBY, LEWIS, LUNENBURG, LYNDON, MAIDSTONE, MARSHFIELD, MORGAN, NEWARK, NEWBURY, NEWPORT TOWN, NORTON, PEACHAM, RYEGATE, SHEFFIELD, STANNARD, SUTTON, TOPSHAM, TROY, VICTORY, WATERFORD, WARREN GORE, WARNERS GRANT, WESTFIELD, WESTMORE, WHEELOCK

NORTHWEST VERMONT SOLID WASTE MANAGEMENT DISTRICT
http://nwswd.org
ALBURG, BAKERSFIELD, BERKSHIRE, ENOSBURG, FAIRFIELD, FLETCHER, FRANKLIN, GEORGIA, GRAND ISLE, HIGHGATE, ISLE LAMOTTE, MONTGOMERY, NORTH HERO, RICHFORD, ST. ALBANS CITY, ST. ALBANS TOWN, SHELDON, SOUTH HERO, SWANTON

RUTLAND COUNTY SOLID WASTE DISTRICT
http://www.rcswd.com
BRANDON, CASTLETON, CLARENDON, DANBY, HUBBARDTON, IRA, KILLINGTON, MENDON, MT. HOLLY, MT. TABOR, PITTSFORD, POULTNEY, PROCTOR, RUTLAND CITY, WALLINGFORD, WELLS, WEST RUTLAND

TOWN OF SAINT JOHNSBURY
http://stjvt.com
CONTACT THE TOWN MANAGER

TOWN OF SALISBURY
https://www.townofsalisbury.org
CONTACT THE TOWN CLERK

SOLID WASTE ALLIANCE COMMUNITIES
http://rutlandcountyswac.org
BENSON, CHITTENDEN, FAIR HAVEN, MIDDLETOWN SPRINGS, PAWLET, RUTLAND, SHREWSBURY, SUDBURY, TINMOUTH, WEST HAVEN

SOUTHERN WINDSOR/WINDHAM COUNTIES SOLID WASTE MANAGEMENT DISTRICT
http://www.vtsolidwastedistrict.org
ANDOVER, ATHENS, BALTIMORE, CAVENDISH, CHESTER, GRAFTON, LUDLOW, PLYMOUTH, READING, ROCKINGHAM, SPRINGFIELD, WEATHERSFIELD, WEST WINDSOR, WINDSOR

MOUNTAIN ALLIANCE - TOWN OF RANDOLPH
manager@municipaloffice.randolph.vt.us
BRAINTREE, BROOKFIELD, NORTHFIELD, RANDOLPH

WHITE RIVER ALLIANCE - TOWN OF BETHEL
KEITH O. ARLUND, ADMINISTRATOR
RR 1 BOX 335
BETHEL, VT 05032
(802) 234-9340
BARNARD, BETHEL, GRANVILLE, HANCOCK, PITTSFIELD, ROCHESTER, ROYALTON, STOCKBRIDGE

WINDHAM SOLID WASTE MANAGEMENT DISTRICT
http://www.windhamsolidwaste.org
BRATTLEBORO, BROOKLINE, DOVER, DUMMERSTON, GUILFORD, HALIFAX, JAMAICA, MARLBORO, NEWFANE, PUTNEY, READSBORO, SOMERSET, STRATTON, TOWNSHEND, VERNON, WARDSBORO, WESTMINSTER, WHITINGHAM, WILMINGTON, WINHALL

NOTE: DISTRICTS FREQUENTLY CHANGE AND THIS LIST MAY NOT BE UP-TO-DATE, FOR THE MOST RECENT LISTING OF DISTRICTS, PLEASE REFER TO:
http://dec.vermont.gov/waste-management/solid/local-districts

CONTACTS

Hazardous waste, solid waste, medical waste, used oil, universal waste & storage tanks:

Waste Management and Prevention Division, VT Department of Environmental Conservation
1 National Life Drive, Davis 1, Montpelier, VT 05620-3704
802-828-1138 *http://dec.vermont.gov/waste-management*

Environmental Assistance (compliance, technical and permit assistance):

Compliance and Technical Assistance:
Environmental Assistance Office, VT Department of Environmental Conservation
1 National Life Drive, Main 2, Montpelier, VT 05620-3804
800-974-9559 *http://dec.vermont.gov/environmental-assistance*

Permit assistance: Do you need a state permit? Ask a Permit Specialist.
Find the permit specialist for your town:
http://dec.vermont.gov/environmental-assistance/permits/specialists

TO REPORT HAZARDOUS WASTE OR HAZARDOUS MATERIAL SPILLS:

Waste Management and Prevention Division (during regular business hours):	802-828-1138
Division of Emergency Management & Homeland Security Hotline (24 hours/day):	800-641-5005
National Response Center:	800-424-8802

Air Quality:

Air Quality & Climate Division, VT Department of Environmental Conservation
802-828-1288 *http://dec.vermont.gov/air-quality*

Emergency Planning & Community Right-to-know Act (EPCRA Tier II Program):

Vermont Department of Public Safety- Division of Fire Safety
802-479-7586 *http://demhs.vermont.gov/programs/epcra*

Floor drains:

Drinking Water and Groundwater Protection Division, VT Department of Environmental Conservation
Underground Injection Control (UIC) Program
802-477-3441 *http://dec.vermont.gov/water/underground-injection-control*

Pesticides, herbicides, and wood treatment:

Vermont Agency of Agriculture Food and Markets
802-828-2430 *http://agriculture.vermont.gov/pesticide_regulation*

Radioactive wastes, asbestos, and lead-abatement:

Vermont Department of Health
800-464-4343 *http://healthvermont.gov/environment*

VOSHA, occupational health & safety:

Vermont's Occupational Safety and Health Administration (VOSHA), Department of Labor
General VOSHA: *http://labor.vermont.gov/vosha/*
Project Worksafe: 888-723-3937 *http://labor.vermont.gov/project-worksafe/*