

Hazardous Waste Management in Connecticut

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

Note that you are responsible for your hazardous waste from the point of generation to its final disposal.

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

Step One: Determine Which of Your Wastes are Hazardous

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

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

Characteristically Hazardous Wastes (see table on next page) are wastes that exhibit any one of the four characteristics listed below. An abbreviated definition is given for each one here. They are fully defined in the federal hazardous waste regulations [40 CFR 261.21 through 261.24]. Copies of these regulations may be obtained by contacting CT-DEP or through U.S. EPA's web site at www.epa.gov.

Listed Hazardous Wastes are wastes that are specifically identified in one of four lists developed by U.S. EPA in the federal hazardous waste regulations [40 CFR 261.31 through 261.33]. Each hazardous waste listing includes a description of a specific type of waste that EPA considers hazardous enough to warrant regulation. Hazardous waste listings describe wastes that are generated by certain industries, come from common industrial processes, or include specific

CHARACTERISTICALLY HAZARDOUS WASTES

| CHARACTERISTIC | DEFINITION | TESTING | MARINA EXAMPLES |
|---------------------|---|--|---|
| IGNITABILITY | Liquid wastes with a <i>flash point lower than 140°F</i> , <i>ignitable solids</i> , and materials that are designated by the U.S. DOT as <i>oxidizers</i> . | Laboratory certified by the CT Dept. of Public Health | <ul style="list-style-type: none"> • Used solvents • Waste gasoline • Old signal flares • Waste nitric acid |
| CORROSIVITY | Liquid wastes with a pH less than or equal to 2.0, or greater than or equal to 12.5 | The most accurate way to determine pH is with a laboratory test. | <ul style="list-style-type: none"> • Lead-acid batteries • Waste muriatic acid • Caustic paint strippers • Old drain cleaners |
| REACTIVITY | Materials that are: normally unstable; react violently, explode, or emit toxic fumes when mixed with water; or, are capable of exploding at room temperature and pressure or when heated under confinement. | Laboratory certified by the CT Dept. of Public Health | <ul style="list-style-type: none"> • Cyanide compounds • Non-empty aerosol cans • Blasting caps • Dynamite • Other explosives |
| TOXICITY | Materials containing greater than the regulated concentration of any of 40 contaminants listed in the federal hazardous waste regulations [40 CFR 261.24]. | Determined in a certified lab by a test called the Toxicity Characteristic Leaching Procedure (TCLP) | <ul style="list-style-type: none"> • Lead-based paint chips • Spent methyl ethyl ketone solvent • Waste gasoline (contains benzene) • Old containers of chlordane pesticide |

chemical compounds as their main active ingredient. Several hundred specific solvents, metal finishing waste streams and sludges, pesticides, various organic and inorganic chemicals and discarded commercial chemical products are included in these lists.

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

LISTED HAZARDOUS WASTES

| LISTED WASTE | DEFINITION | MARINA EXAMPLES |
|---------------------------|--|---|
| “F” WASTES | Wastes from certain common, nonspecific industrial activities | <ul style="list-style-type: none"> • Spent chlorinated solvents (e.g., methylene chloride, 1,1,1-trichloroethane, perchloroethylene) • Waste paint solvents (e.g., acetone, methyl alcohol, butyl alcohol, xylene, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethyl acetate) |
| “K” WASTES | Wastes from certain specific industrial processes | Rarely, if ever, generated by marinas |
| “U” AND “P” WASTES | Discarded commercial chemical products, off-spec products, container residues, and spill residues of such products | Not commonly generated by marinas <ul style="list-style-type: none"> • Certain old pesticides, solvents, and other chemical products |

Non-RCRA-Hazardous “Connecticut-Regulated” Wastes.

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

Some examples of Connecticut-Regulated Waste that might be generated at marinas may include:

- Non-hazardous paint-related wastes (e.g., sandblasting grit, bottom sanding dust, paints, solvents, cleanup residues, etc.)
- Non-hazardous rags/wipers contaminated with oil, grease, cleaners, paints, solvents, etc.
- Non-hazardous antifreeze
- Waste diesel fuel
- Used oil

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

For more information on Connecticut Regulated Wastes, contact CT-DEP’s Waste Engineering & Enforcement Division and ask for the free fact sheet entitled “Non-RCRA Hazardous Wastes (Connecticut-Regulated Wastes).” This document is among several helpful documents listed at the end of this section.

FREQUENTLY ASKED QUESTIONS ABOUT HAZARDOUS WASTE DETERMINATIONS

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

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

Q: Where can I get my waste tested?

A: The Connecticut Department of Public Health licenses analytical laboratories in Connecticut, and several dozen of these labs are capable of doing hazardous waste testing. To get a list of these labs, call CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3274. Many of these labs are also listed in the Yellow Pages under “Laboratories – Analytical.”

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

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

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

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

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

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

Step Two: Determine Your Hazardous Waste Generator Status

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

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

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

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

For more detailed information, call the CT-DEP's Bureau of Materials Management and Compliance Assurance Waste Engineering & Enforcement Division at (860) 424-3023 and ask for the fact sheet, *Hazardous Waste Generator Category (4/96)*, listed at the end of this section, which will help you determine what set of requirements you are subject to.

Step Three: Properly Store and Dispose of Your Hazardous Waste

Once you have determined your generator status, the next step is to determine the requirements that apply, and ensure that your facility is in compliance with them. Table 1 on page 104 provides an overview of the various requirements that apply based on generator status. Details on these requirements are provided below.

1. Conditionally Exempt Small Quantity Generators (CESQG)

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

In general, if you are a CESQG, then you must do the following:

[RCSA §22a-449(c)-101(b), 40 CFR 261.5]

- Ensure that your waste is disposed of at a permitted hazardous waste treatment or disposal facility, or at a household hazardous waste facility (or one-day collection event that is permitted to take CESQG waste).
- If you hire a waste hauler to take away your waste, be sure that hauler has a valid EPA Identification number and transporter's permit to haul waste in Connecticut.
- Perform a hazardous waste determination on all the wastes you generate, and keep records of all test results and other information used to make these determinations for at least three (3) years from the date that the waste was last sent off-site for disposal.
- Comply with Universal Waste requirements for any Universal Wastes that you generate. Universal Wastes are wastes that are subject to a special, reduced set of requirements in 40 CFR 273, and include batteries, recalled pesticides, mercury thermostats, and fluorescent lamps. (For more information on Universal Wastes, call the CT-DEP's Engineering & Enforcement Division at (860) 424-3023 and request the fact sheet entitled "Universal Waste Rule.")
- Remember: if at any time your waste generation or storage amounts increase beyond CESQG levels, you must comply with the requirements for the higher generator category.

Best Management Practices for CESQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see page 108 for "Hazardous Waste Minimization Tips"). If possible, completely eliminate the generation of hazardous waste, and avoid having to comply with hazardous waste requirements altogether.
- If you store waste in containers, keep them in an area which has an impervious base and secondary containment to capture any leaks or spills. Use containers that are compatible with the waste you are putting in them, and store waste containers away from other wastes or raw materials with which they may be incompatible. In addition, ensure that the containers are kept closed and in good condition, and immediately replace or over-pack any damaged or leaking containers. Do not store hazardous waste within 50 feet of the facility property line, or immediately adjacent to rivers, streams, or shorelines.

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

2. Small Quantity Generators (SQG)

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

In general, if you are a SQG, then you must do the following:

[RCSA §§22a-449(c)-102(b) and -102(c), 40 CFR 262.34(d)]

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

TABLE 1: Overview of Hazardous Waste Requirements Based on Generator Category

| | Large Quantity Generators (LPG) | Small Quantity Generators (SQG) | Conditionally Exempt SQGs (CESQG) |
|---|--|--|---|
| Hazardous Waste Generation Rate (per calendar month) | More than 2200 lbs. of hazardous waste OR more than 2.2 lbs. of acute hazardous waste. | More than 220 lbs. but less than 2200 lbs. of hazardous waste AND less than 2.2 lbs. of acute hazardous waste. | Less than 220 lbs. of hazardous waste AND Less than 2.2 lbs. of acute hazardous waste. |
| Max amount of Hazardous Waste on-site | None | 2200 lbs. | 2200 lbs. |
| Max. storage time | 90 days | 180 days | No limit |
| Waste Determination Required? | Yes | Yes | Yes |
| Generator EPA ID Number Required? | Yes | Yes | No |
| Manifest required for shipment off-site? | Yes | Yes | No |
| Permitted transporter required? | Yes | Yes | Yes |
| Allowed disposal facilities | Permitted hazardous waste treatment, storage, or disposal facilities. | Permitted hazardous waste treatment, storage, or disposal facilities. | Permitted hazardous waste treatment, storage, or disposal facilities; authorized household hazardous waste collection facilities. |
| Storage requirements | See text. | See text. | None. However, see BMPs for CESQGs. |
| Emergency Procedures/Plans | Full written contingency plan. See text for details. | Emergency coordinator and post information near on-site telephone. See text for details. | None. However, see BMPs for CESQGs. |
| Inspection requirements | Written inspection schedule and log. See Section 3 for details. | Written inspection schedule and log. See text for details. | None. However, see BMPs for CESQGs. |
| Personnel training requirements | Written training plan and formal classroom training. See text for details. | Employees must be familiar with waste handling & emergency procedures. See text for details. | None. However, see BMPs for CESQGs. |
| Recordkeeping requirements | Must retain manifests, biennial reports, waste determinations (w/ test results), inspection logs, and records of incidents requiring implementation of the contingency plan. | Must retain manifests, waste determinations (w/ test results), and inspection logs. | Records of waste determinations (w/ test results) |
| Biennial report? | Yes | Not required after 2001 | No |

- Prepare a hazardous waste manifest for each shipment of waste off-site, and retain a copy of the manifest for each shipment. Ensure that the required Land Disposal Restriction (“LDR”) Notices accompany each manifested shipment, and retain copies of these notices on-site.
- Ensure that you do not store waste for more than 180 days.
- If you store waste in containers, mark each container with the words “hazardous waste,” a description of the contents, such as the chemical name, and the date of initial accumulation. Store containers in an area which has an impervious base, and secondary containment that is capable of containing the volume of the largest container stored in the area, or ten percent of the total volume of waste stored in the area (whichever is greater). Use only containers that are compatible with the waste you are putting in them, and store waste containers away from other wastes or raw materials with which they may be incompatible. In addition, ensure that containers are kept closed and in good condition, and immediately replace or over-pack any damaged or leaking containers. And, when shipping containers of hazardous waste off-site, ensure that they are properly packaged, marked and labeled in accordance with U.S. DOT shipping requirements for hazardous materials.
- If you store waste in tanks, mark each tank with the words “hazardous waste,” and a description of the contents, such as the chemical name. Ensure that the waste is compatible with the tank (e.g., don’t put corrosive waste in an unlined steel tank) and do not store wastes that are incompatible with one another in the same tank. Do not use uncovered tanks. Ensure that ignitable and reactive wastes that are stored in tanks are separated from sources of ignition or reaction (e.g., open flames, smoking, welding, sparks, etc.).
- If you discontinue the use of a tank or container storage area, remove all waste, thoroughly clean and decontaminate the area, and perform post-decontamination testing to confirm that no waste residues remain.
- Develop a written inspection schedule which lists the areas of the facility to be inspected and describes procedures to be followed during inspections. Perform inspections of all hazardous waste storage areas (weekly for containers, daily for tanks), looking for leaks, spills, damaged containers, and other hazardous conditions. Correct any problems as quickly as possible. Document your inspections (and any corrective actions taken to address noted problems) in a written inspection log, and keep these records for at least three (3) years.
- Designate an emergency coordinator and post the name and telephone number of this coordinator next to the on-site telephone, along with the locations of fire extinguishers and spill control material, the fire alarm (if you have one), and the telephone number of the local fire department (i.e., 911). Make arrangements with local emergency response authorities to coordinate emergency services in the event of an emergency.
- Ensure that whenever waste is being handled, personnel have access to an internal alarm or emergency communication device.
- In the event of an emergency (e.g. fire, explosion, waste spill, severe storm, flood, etc.), take appropriate steps to ensure that hazardous waste

is not released into the environment. Notify local emergency response authorities (i.e., local fire and/or police departments). If a spill has occurred, report it to the CT-DEP's Oil and Chemical Spill Response Division via its 24-hour spill reporting hotline at (860) 424-3338. If there is a release of hazardous waste that could threaten human health outside your facility, you must also contact the National Response Center at (800) 424-8802. Contain and properly dispose of any spilled or leaked waste (or hire a permitted spill cleanup contractor to perform this work).

- Train all personnel involved in hazardous waste management in proper waste handling and emergency procedures relevant to their specific job duties.
- Comply with Universal Waste requirements for any Universal Wastes that you generate. Universal Wastes are wastes that are subject to a special, reduced set of requirements in 40 CFR 273, and include batteries, recalled pesticides, mercury thermostats, and fluorescent lamps. (For more information on Universal Wastes, contact the CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3032 and request the fact sheet entitled "Universal Waste Rule.")
- Remember: if at any time your waste generation or storage amounts increase beyond SQG levels, you must comply with Large Quantity Generator Requirements.

Best Management Practices for SQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see page 108 for "Hazardous Waste Minimization Tips"). For some SQGs, eliminating even a small amount of waste generation will be enough to allow them to reduce to CESQG status.
- Do not store hazardous waste within 50 feet of the facility property line, or immediately adjacent to rivers, streams, or shorelines.
- If you store waste in tanks, provide the tank with an impervious base and secondary containment to capture any leaks or spills (or, as an alternative, use double-walled tanks). Ensure that the fill opening for the tank is properly equipped so as to prevent spillage down the outside of the tank.
- Develop written emergency procedures to respond to leaks, spills, fires, storms, floods, etc.
- Document the hazardous waste training that you provide to your employees.

3. Large Quantity Generators (LQG)

Few marinas are likely to fall into this generation category. However, for those that do, the applicable requirements for LQGs are listed below. All of the requirements and BMPs for LQGs are described in detail in a series of free fact sheets which are available free from CT-DEP (see list at the end of this section).

In general, LQGs must comply with the requirements listed in Section 2 above for Small Quantity Generators, as well as the following, additional requirements:

[RCSA §22a-449(c)-102(b), 40 CFR 262.34(a) and (b)]

- LQGs may not store wastes for more than 90 days.
- LQGs may not store containers of hazardous waste within 50 feet of the facility property line.
- LQGs that store hazardous waste in tanks must comply with numerous additional requirements. In particular, these tanks must be designed in accordance with special design and installation requirements, and must be tested for tightness prior to use. LQG tanks must also be provided with special secondary containment and leak detection systems, and spill prevention and overfill controls. LQGs are subject to special requirements in the event of a spill or leak, or if the tank becomes unfit for use. When LQGs permanently cease using a tank, they must perform special cleanup and decontamination activities, and, if the former tank storage area cannot be fully cleaned up, then the area must be closed in accordance with requirements for hazardous waste landfills. LQGs must have their tanks inspected by a independent, registered, professional engineer, and certified as to their integrity and compliance with the above requirements.
- LQGs must comply with special air emission standards for their tanks and containers (i.e., 40 CFR Subparts AA, BB, and CC).
- LQGs must have a written contingency plan that includes emergency procedures in the event of a fire, explosion, spill, or other emergency. This plan must include the names, addresses, and telephone numbers of all persons qualified to act as emergency coordinator, a list of all emergency equipment at the facility (including the locations and brief descriptions of each item on the list), and a facility evacuation plan. The plan must also describe arrangements with local emergency authorities to coordinate emergency services.
- LQGs must have a formal personnel training program that provides both initial training and annual refresher training. The training program must include a written description of the training, a list of names, job titles, and descriptions for all personnel involved in hazardous waste management, and records documenting that all required training has been provided. These records must be retained until closure of the facility (or for at least three (3) years after an employee last worked at the facility).
- LQGs must submit biennial hazardous waste reports to CT-DEP, and keep copies of these reports for at least three years.

Best Management Practice for LQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see page 108 for “Hazardous Waste Minimization Tips”). As is clear from Table 1 and the above bullets, there are many advantages to reducing your generator status (e.g., longer storage times, fewer requirements to comply with, etc.).

HAZARDOUS WASTE MINIMIZATION TIPS

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

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

Some specific waste minimization options for the marina industry include:

- **Used Oil:** *Keep hazardous waste and other contaminants out of your used oil so that it does not have to be handled as a hazardous waste.*
- **Waste Fuel (gasoline, diesel):** *Send the waste fuel that you generate for recycling (fuel blending) rather than for disposal or incineration. Waste fuels that are recycled in this way are exempt from regulation as hazardous waste.*
- **Parts Washing:** *Switch from a hazardous parts washing solvent (low-flash mineral spirits, chlorinated solvents) to a non-hazardous one (high-flash mineral spirits or water-based cleaners).*
- **Paint Stripping:** *Instead of sandblasting or using hazardous paint strippers (methylene chloride) to remove paint, use non-hazardous strippers or dustless sanders.*
- **Paints/Solvents:** *Look into having painting done by off-site contractors. If you must paint on-site, use as little paint and as little solvent as possible to get the job done. Look into non-hazardous solvents for cleaning up, etc. Reuse solvents by settling out the paint solids, or recycle them in an on-site solvent recycling still.*
- **Engine Coolant (Antifreeze):** *Reuse or recycle antifreeze on-site.*
- **Rags/Wipers:** *Use only non-hazardous cleaning agents/solvents for cleanup. Send your rags to an industrial laundry instead of disposing of them.*
- **Batteries (Lead-Acid and Household Types):** *Send batteries for recycling rather than disposing of them. Manage batteries under reduced “Universal Waste Rule” requirements [40 CFR 273].*
- **Old Virgin Products:** *Marinas that stock products for their customers (e.g., paints, solvents, cleaners) often find that they must dispose of old or damaged products as hazardous wastes. To avoid this, try not to stock items which are hazardous. If this is not possible, see if the manufacturer will take the material back, or if there is someone else who can legitimately use the product.*

Hazardous Waste Management Documents Available from the Bureau of Material Managements and Compliance Assurance, Waste Engineering & Enforcement Division: (860) 424-3023

| TITLE | DATE | GENERAL TOPIC |
|---|-------------|--|
| Hazardous Waste Management Regulations* | 9/10/02 | CT's rules for the management of hazardous waste, which incorporate the federal rules with certain additions and modifications. |
| Fact Sheet: "DEP Revises Hazardous Waste Regulations"* | 3/24/03 | Summary of the new provisions in the above regulations. |
| Conditionally Exempt Small Quantity Generator Handbook* | 2/98 | Requirements for generators of less than 100 kg/month of hazardous waste. |
| Small Quantity Generator Guidance* | 2/05 | Requirements for generators of between 100 kg/month and 1000 kg/month of hazardous waste. |
| Hazardous Waste Generator Category* | 4/96 | Helps generators determine which set of requirements they are subject to. |
| Hazardous Waste Determinations/ Knowledge of Process* | 2/02 | Guidance on how to determine if a waste is hazardous. |
| Hazardous Waste Personnel Training* | 4/96 | Describes personnel training requirements for large quantity generators. |
| Hazardous Waste Inspections* | 4/96 | Describes inspection requirements for large quantity generators. |
| Hazardous Waste Contingency Plan* | 4/96 | Describes emergency planning and response requirements for large quantity generators. |
| Hazardous Waste Container Management* | 4/96 | Describes container management requirements for large quantity generators. |
| Permitted Waste Transporter's List* | 3/20/07 | List of companies who are permitted to haul hazardous waste in or through CT. |
| List of Commercial Hazardous Waste and Connecticut Regulated Waste Facilities in Connecticut* | 1/18/07 | List of facilities in CT that are permitted to store, treat, or dispose of commercial and industrial wastes. |
| Non-RCRA Hazardous Wastes (Connecticut Regulated Wastes)* | 11/29/01 | List of non-hazardous wastes which are subject to special requirements in CT. |
| COMPASS (Hazardous Waste Compliance Assistance Program) Document Package | 10/97 | Summary of COMPASS program, plus fact sheets regarding hazardous waste generator category, use of manifests, container management, inspections, personnel training, and contingency plan requirements. |
| Pollution Prevention Options — Fact Sheets for Industry* | 9/96 | A collection of numerous industry- and process-specific fact sheets designed to help companies reduce or eliminate the generation of hazardous waste. |
| Pit Stops Fact Sheets* | 5/04 | A collection of fact sheets regarding various wastes generated from vehicle maintenance and painting operations. |
| Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries* | 10/18/96 | Comprehensive guidance on the proper handling of wastes, which contain lead-based paint. |
| Disposal of Building Materials Coated with Lead-Based Paint* | 2/99 | Brief, two-page companion to the above guidance, intended for homeowners and small contractors. |
| Management of Used Oils in Connecticut* | 1/99 DRAFT | Comprehensive guidance on the management of used oils and other oily wastes in CT. |
| Used Oil Supplemental Fact Sheet #10: Used Oil from Boats, Ships, and Other Watercraft* | 12/30/05 | Brief, four-page fact sheet intended for marinas and individual boat owners that generate used oil. |
| A Reference Book for Disposal of Household Hazardous Waste in CT* | 12/1/95 | Guidance for municipalities on the management of household hazardous waste. |
| Management of Aerosol Cans | 7/13/05 | Two-page fact sheet on the proper management and disposal of aerosol cans. |
| Universal Waste Rule* | 8/02 | Overview of special reduced hazardous waste requirements for batteries, mercury thermostats, recalled pesticides, and fluorescent lamps. |

*Note: These documents can be found by visiting the Connecticut DEP website, www.ct.gov/DEP, and searching by the document title, in the search box.

Hazardous Waste Management

Documents Available from the DEP Pollution Prevention Program: (860) 424-3022

| TITLE | DATE | GENERAL TOPIC |
|---|-----------|--|
| Facility Pollution Prevention Guide | 5/92 | Comprehensive pollution prevention guidance manual developed by EPA. |
| Profile of the Shipbuilding and Repair Industry** | 11/97 | Detailed EPA analysis of the processes and waste management activities associated with shipbuilding and repair facilities. |
| Water Based Paints — A Pollution Prevention Case Study* | 1/98 | Case study of an autobody shop that reduced air emissions and waste generation by switching to water based paints. |
| New Parts Cleaning Systems Eliminate Hazardous Waste — A Pollution Prevention Case Study* | 1/98 | Case study of efforts by the USPS to reduce hazardous waste generation at its vehicle maintenance facilities. |
| Used Oil Regulations — A Quick Guide for Auto Repair Shops*** | Not Dated | Quick guide on used oil requirements in Connecticut. Available in English, Spanish, and Portuguese. |
| Antifreeze* | 1/98 | One-page fact sheet aimed at household do-it-yourselfers. |
| Degreasers* | 1/98 | One-page fact sheet aimed at household do-it-yourselfers. |
| Household Hazardous Waste Vendors* | 11/01/04 | A listing of potential household hazardous waste collection vendors. |
| Managing Household Hazards: Managing Household Batteries* | 10/05 | Information on the proper disposal of a variety of small household batteries. |
| Recycling Rechargeable Batteries* | 9/01 | A fact sheet on the proper management of spent rechargeable batteries. |

*NOTE: These documents can be found by visiting the Connecticut DEP website, www.ct.gov/DEP, and searching by the document title, in the search box.

**NOTE: The “Profile of the Shipbuilding and Repair Industry” can be found by searching the EPA website, www.epa.gov.

***NOTE: The “Used Oil Regulations – A quick Guide for Auto Repair Shops” is available from the Northeast Waste Management Officials Association (NEWMOA); through their website www.newmoa.org and searching for Connecticut Used Oil Regulations – A quick Guide for Auto Repair Shops.