Small Mechanical Repair Facilities

Best Management Practices For

Hazardous Materials/Waste Handling

(Updated July 2016)

Best Management Practices (BMPs) should be thought of as "good housekeeping" practices. In the mechanical repair industry, you may have some waste streams regulated as hazardous waste by Federal & State laws. Many of these waste streams could be considered nonhazardous if properly recycled instead of disposed of in the trash or down the drain. Listed below are typical waste streams, along with procedures to help you comply with these regulations and help reduce the liabilities associated with noncompliance.

Types of Regulated Waste Streams:

1. **Lead Acid Batteries:** Batteries need to be stored on an impervious surface, in an area shielded from the weather. Best Management Practices dictate that batteries be stored indoors, on a wooden pallet over acid-resistant material. If any cores are missing caps or are cracked, place them in an acid-resistant plastic container, along with neutralizing material for leak absorption. Prevent acid from reaching soil and surface waters. This will reduce cost for contamination clean up and limit potential penalties. If you currently use your battery supplier to dispose of spent batteries, be sure that the supplier documents the number of cores removed on your **receipt**. If you are not using your battery supplier to recycle batteries, you may take your used cores to a scrap metal dealer. Again, secure a **receipt** noting the number of cores that were recycled**. Keep receipts ON SITE for a minimum of three years.** When your batteries are recycled, they are not counted towards your facility's hazardous waste totals.

2. **Used Oil:** To ease the burden of managing too many storage containers, used oil should be stored in one above ground storage tank (AST), if possible. If it is necessary for you to use 55-gallon drums as storage containers, they must be in good condition. 40 CFR 279.22(b) states: containers and aboveground storage tanks used to store used oil at generator facilities must be in good condition (no severe rusting, apparent structural defects or deterioration) and not leaking (no visible leaks). Drums must also be Department of Transportation (DOT) approved. Used oil containers that are not double walled must be placed within a secondary containment system. The secondary containment system must have the capacity to hold 110% of the volume of the largest container within the containment system. Your used oil containment area should have a sealed oil-resistant coating and be under cover. This will prevent rain from entering the storage area, mixing with oil and, subsequently, becoming contaminated. Make sure that all containers are capped when you are not transferring used oil from temporary containers. This provides additional assurance that water will not enter the container and contaminate the oil. The storage container and any fill pipes to the storage container must be labeled "Used Oil". The "Used Oil" signage must be visible from all approaches on the container (i.e. on each side). If you are using drums, each individual drum must be labeled. Receipts from the used oil hauler must be kept on site for a minimum of three years. When selecting a used oil hauler, be sure to check with the Florida Department of Environmental Protection about the company's record of compliance.

3. **Used Oil Filters:** There are limited options available for disposing of this type of waste. **You can no longer dispose of used oil filters into the solid waste stream.** All filters should be completely drained of any free flowing oil (crushed preferably) and placed into a marked container with a secure lid. You can dispose of these filters in two basic ways; (1) After containerizing the filters they can be hauled to the Waste-to-Energy (WTE) facility or (2) You can contract with a hauler to have them haul the filters to the WTE. The recommended BMP for draining and crushing filters is to "hot drain" the filter for 24 hours. Hot draining filters will minimize the volume of used oil inside the filter, and crushing them will reduce the amount of space used in the container. This can save you quite a bit of money if you are having a private hauler take them. (Check with your filter hauler before crushing). Do not crush filters by driving a vehicle over them! Label all drums "Used Oil Filters" and keep all receipts from the hauler a minimum of three years to show proof of proper disposal. Store the drum with lid closed inside a containment area to eliminate contamination from rain.

4. **Parts Cleaning Machines:** There are a multitude of choices when it comes to parts washers. The most-regulated systems are those that use chlorinated solvents or chemicals with low flash points. It is advisable to investigate other non-hazardous systems. The less-regulated systems may allow you to manage your parts washing operations without relying on another company to haul the waste away monthly. This may reduce the amount of waste that you haul monthly, thereby reducing your generator status and lowering your level of regulatory requirements (saving time and money).

   If you use mineral spirits to wash parts **AND your business is defined as a CESQG** (generates less than 220 pounds hazardous waste monthly), the Florida Department of Environmental Protection (FDEP) states that you may place mineral spirits in with your used oil. **Written permission from the used oil hauler must be kept on file at your facility.** An FDEP memo dated June 23rd 1992 states that mineral spirits can be mixed with used oil under the following conditions: (1) The mixture does not contain more than 1,000 ppm halogens and does not exhibit the ignitability characteristic (flash point less than 140° F). (2) The mixture is not determined to be hazardous waste through laboratory testing for toxicity characteristic (heavy metals). If the above conditions are met the mixture may be hauled as used oil destined for recycling. It is never suggested to use chlorinated solvents. Chlorinated solvents can cross-contaminate your waste stream and cause recyclable waste to become hazardous waste.

5. **Aerosol Cleaners:** Many different kinds of aerosol cleaners promise they are "environmentally friendly". Read the label and consult the Safety Data Sheet for the listing of active ingredients. If any of the ingredients contain the word "chlor", the aerosol contains chlorinated solvents. **Chlorinated solvents are one of the main regulated ingredients in aerosol cleaners. Avoid using chlorinated cleaners. They can cross-contaminate other waste streams.** Products contain other regulated ingredients, so read labels and SDS carefully.

   Once an aerosol can is "empty", by federal definition, it can be disposed of in your normal trash. The definition of "empty" is the point at which the atmospheric pressure inside the can is the same as the pressure outside the can, with all material dispersed. If the container cannot be emptied, it must be treated as hazardous waste if any regulated material remains inside. You may want to look at purchasing cleaners in bulk that use reusable containers. These reusable containers can be pressurized with your own air compressor. This will save cost in purchase of materials and reduce the number of disposed containers.

6. **Waste/Used Antifreeze:** Waste antifreeze must be stored in separate waste containers and properly labeled. These containers should be marked "used antifreeze" for recycled antifreeze or "waste antifreeze" for antifreeze that is hauled as hazardous waste. Before disposal as waste antifreeze, a waste determination must be performed. This will require testing utilizing TCLP for heavy metals. Depending on the test result, it may be hazardous waste and will require you to have the appropriate hauler remove this waste with proper documentation (manifesting). Keep the receipt showing proper disposal for a minimum of three years. Recycling anti-freeze on site is the preferred management practice. Recycling on site reduces your monthly hazardous waste totals and can minimize the regulations that you are required to comply with by reducing your generator status. **Recycling on site is done three different ways, depending on the quality of the antifreeze and the amount generated.** (1) Antifreeze should be put back into the vehicle that it was taken out of whenever possible. (2) Recycling this waste on site with a machine owned by the facility is another option. If you own your own antifreeze-recycling machine you will have filters that will occasionally need to be changed. These filters build up heavy metals over time and should have a waste determination preformed on them before disposal, or simply be handled as a hazardous waste and manifested as such. A logbook should be kept with the amount of antifreeze recycled and the date, and should be kept for a minimum of three years. (3) There are several contractors that will come to your site to recycle your antifreeze. This service works well for all types of facilities, from Large Quantity Generators to Conditionally Exempt Small Quantity Generators. Even if you decide that you don't want the recycled product you can have the recycling contractor haul it for cheaper than it would cost to have it hauled by a hazardous waste hauler. Make sure that antifreeze is not stored in a container that cannot be completely emptied because any sludge will sink to the bottom of the container. Once in the container, the sludge may not be able to be removed if it is a large tank. A container with a wide opening is preferred (55gal. drum with an open top that clamps on and meets DOT standards). Receipts from the recycler or the hazardous waste hauler should be kept for a three-year minimum. For facilities that recycle their own antifreeze documentation needs to be kept in the form of a logbook with date, and amounts recycled.

7. **Shop Rags:** Do not use disposable shop rags in certain processes at your facility. If you do use disposable rags and they are contaminated, they must be hauled as hazardous waste. To avoid this problem, contracting with a uniform service may be a better option for limiting your liability. Contracting with a company that will supply you with clean rags on a regular basis may be expensive, but it could save you money in fines for improper disposal of hazardous waste. These contractors are permitted by state and local agencies to wash the rags, which are considered recyclable items. Used rags should be placed into a closed-lid container, which is properly labeled for the rag service. They will then pick up and launder the rags. Make sure that you receive receipts, which will serve as your documentation. Keep all receipts for a minimum of three years. Use shop rags instead of absorbent for small drips and dribbles. Do not mix rags together with different waste into the same storage container, as they may be reactive to one another and become a fire hazard.
   ***A new rule has been put in place by FDEP for the Management Practices for Wipes, Rags, and Shop Towels that are only contaminated with Excluded Solvents.** This rule provides another disposal option for wipes, rags, and towels that meet the conditions for exclusion. For more information on this rule, and a list of the solvents, please refer to the handout provided.

8. **Absorbent Material:** Absorbent materials are needed when spills occur. The types and amounts of spilled material will determine how you need to dispose of the absorbent material used. As a general rule: use absorbent materials for oil spills only, or for emergency situations where nothing else is available. Heat-treated peat moss is the preferred absorbent if this material is going to the county incinerator WTE. Do not use absorbents for spills involving gasoline, diesel, antifreeze, battery acid, etc. Use rags provided by your rag service for small spills, drips, and/or dribbles. Absorbents will not change the fact that a spilled hazardous substance is a hazardous waste, and must be disposed of accordingly. Heat-treated peat moss and other absorbents should be used for large spills and/or emergency spills. The substance being absorbed will dictate disposal requirements. If you have further questions about this waste, please call to verify proper disposal.

9. **Air Conditioning Repair:** The procedure for this type of operation depends on the type of machine you have. A system that captures, recycles, and places the Freon back into the system being serviced is preferable to a system that merely catches Freon and places it into a container for shipment off site. A logbook should be kept on amounts of Freon reclaimed and used to charge machines. A total account of all Freon bought, charged into systems, and reclaimed should be a part of your everyday best management practices. Do not discharge Freon to the atmosphere. If your current system is being upgraded, be sure to recycle any mercury thermostats that are replaced. Make sure your equipment is registered with the Florida Department of Environmental Protection (FDEP) and the employee has the proper training to perform the work (ASE Certified). All associated paperwork for this operation must be kept on site. Any records pertaining to reclamation and disposal need to be kept on site for a minimum of three years.

10. **Waste Fuel Filters:** These types of filters can include in-line gasoline and/or diesel filters, fuel/water separator filters, and fuel dispenser filters. Limited options are available to you for disposing of this type of waste. The filters can be drained of all free flowing fuel and placed in a container that is properly marked and has a tight fitting lid to keep fumes from escaping. If your facility generates small numbers of these filters, you can dispose of them in the same container as your used oil filters. If you generate large numbers of fuel filters, store them separately in a drum with a tight fitting lid to minimize the threat of explosion. Drain all residues from filters. Residues from fuel filters can be disposed of in your used oil, as long as the used oil is being recycled, and does not change the ignitability characteristic of the mixture (Fed. Reg., Vol. 50, No.280, Nov., 29, 1985, p.49179).
    Draining the filter to minimize the amount of used fuel in the filter element is recommended. Fuel filters may be stored in the same container as oil filters and can be managed in two basic ways; they can be hauled to the WTE by you or by a licensed hauler. **No filters can be disposed of in a landfill.** The filters should be drained. Not only does this minimize the volume of used fuel inside the filter, but it also reduces the amount of free liquid in the collection drum for the filters. Label the drums Used Fuel Filters and keep the receipts from the hauler a minimum of three years to show proper disposal. Store the drum with lid closed inside a containment area that is protected from the weather.

11. **Discarded Gasoline & Diesel Fuel:** Fuels removed from vessels that cannot be used must be disposed of as hazardous waste. This includes both proper labeling and documentation of the management activities. Waste gasoline should be stored separately from other wastes. Please consult the haulers list provided to you for a list of companies that can legally haul this waste.

12. **Fluorescent Bulbs:** Fluorescent bulbs/devices are considered hazardous waste because they contain the heavy metal **mercury**. However, if you recycle under the Universal Waste Regulations, fluorescent bulbs/devices do not qualify as hazardous waste. Please call the Pollution Prevention (P^2) Program for a list of fluorescent bulb recyclers and handling instructions. Caution: if a supplier tells you that their bulbs are environmentally safe, remember that they are trying to sell you a product, and that they may not be familiar with the State and Local regulations that pertain to the proper recycling or disposal of these mercury-containing bulbs. **Lamps or devices with <u>any</u> mercury must be recycled following the Universal Waste Regulations or disposed of following hazardous waste regulations.** Please refer to the Management of Spent Mercury-Containing Lamps and Devices handout for further details.

*__Safety Data Sheets__ are a good start to determine if your waste stream will be hazardous waste. They do have their limitations if they are too vague. SDS's do not take into account what process or system the product may be used in or what your management practices are for preventing cross contamination. There is a free tool for you to use that can be received from your supplier of the product. Before purchasing any product, request the SDS to see what is in it and to help avoid costs associated with the purchase, use, and disposal of the product.

<u>Do Not's</u>

- <u>Do not</u> use any chlorinated solvents.
- <u>Do not</u> use one container as the "catch-all" for all fluid draining procedures. This can cause cross-contamination of waste.
- <u>Do not</u> store any materials/waste near storm drains, ditches, creeks, rivers, canals, or any bodies of water that would be contaminated if a spill occurs.
- <u>Do not</u> throw away, or send to a bookkeeper, receipts that show your disposal of waste materials. They are required to remain on site for a minimum of three years. This includes contracts with hazardous waste haulers.
- <u>Do not</u> take the word of any sales person who will not supply an SDS for the product he/she is selling. Some will say that the material is biodegradable or environmentally friendly, but the process that you use the material in may contaminate the product and cause it all to be regulated (i.e. equipment degreasing and rinsing).
- <u>Do not</u> mix any waste with another waste. This will increase your cost for disposal. The most common mistake is to mix the wrong materials into the used oil. Check with your used oil hauler for what is acceptable to mix together into the bulk used oil container. Get this in writing from your hauler!
- <u>Do not</u> dispose of any material into your septic system, sanitary sewer, or storm sewer. If you want to do this you must have written permission from the Regulatory agency that permits that particular system. Septic System-Department of Health and Rehabilitative Services; Sanitary Sewers- utility district in which your facility is located; Storm Sewer-Department of Environmental Protection.
- <u>Do not</u> store hazardous waste out of containment areas. Make sure all containers are properly <u>labeled</u> (include dates where necessary).
- <u>Do not</u> hesitate to ask any questions when it comes to managing your hazardous waste streams.

If you have any questions, please call the Division of Natural Resources Management, Pollution Prevention (P^2) Program at (239) 533-8821.

GUIDANCE FOR USED OIL MANAGEMENT
CHAPTER 62-710, FLORIDA ADMINISTRATIVE CODE (F.A.C.)
September 3, 2013

The Department recently adopted revisions to the used oil management rules to clarify certain requirements. The revised rules became effective on April 23, 2013. This guidance serves to provide further clarification for the public, the regulated community, and Department staff.

Facilities that Burn Used Oil On-site under a Valid Air Permit

Facilities that conduct processing operations or transport used oil incidental to burning the used oil as fuel on-site, provided a valid air permit authorizing such burning is in effect for the facility and all of the used oil fuel is burned on-site within the limits of a valid air permit, shall not be considered a processor, transporter, or transfer facility as defined under 62-710.201 and shall not be subject to the requirements of Rules 62-710.500, 62-710.510, 62-710.600, or 62-710.800, F.A.C.

Facilities that Discharge Wastewater under a Valid NPDES Permit

Many facilities are large and complex industrial manufacturing facilities that may have continuous monitoring and periodic inspections and sampling programs in place, discharging their wastewaters under a NPDES permit with an oil & grease limitation. These facilities should have compliance programs to insure compliance with used oil regulations and the Federal Spill Prevention, Control and Countermeasure requirements.

For facilities with NPDES permits, notwithstanding 62-710.401(2), F.A.C., which states the following; "*No person may discharge used oil into soils, sewers, drainage systems, septic tanks, surface or ground waters, watercourses, or marine waters*", it should be understood that de minimis quantities of used oil are regulated by the Clean Water Act. De minimis quantities of used oil are small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations, or when small amounts of oil are lost to the wastewater treatment system during washing or draining.

Large industrial facilities may have installed complex machinery equipped with hydraulic systems or lubrication systems. Such systems may have de minimis oil discharges that are routed to sewers and drainage systems to the wastewater treatment systems and are treated, monitored, sampled and limited under the NPDES permit. The systems may also be equipped with oil/water separation devices and connected to oil collection systems. Any used oil that is recovered from the wastewater treatment system should be either managed with the rest of the facilities' used oil as fuel, or

managed in accordance with the other applicable parts of Chapter 62-710, or in accordance with Chapter 62-701 or Chapter 62-730, F.A.C.

Therefore, it is important to understand that such facilities should have best practices in place, as required by their Industrial NPDES permit, that are intended to provide for the effective protection of ground and surface waters while maximizing energy recovery of used oil. In implementing these best practices, it may be impracticable for the facility to follow a strict interpretation of the requirements 62-710.401(2), F.A.C.

Used Oil Marketers

The definition of "processor" in subsection 62-710.201(3), F.A.C., means any person processing used oil. The term also includes any transfer facility that stores used oil for longer than 35 days at a time, any used oil fuel marketer who receives used oil from transporters and who has at least 25,000 gallons of used oil storage capacity, and any person who blends used oil with on-specification used oil fuel or with virgin petroleum products for the purpose of producing on-specification used oil fuel.

The definition of "used oil fuel marketer" in subsection 62-710.201(10), F.A.C., and 40 Code of Federal Regulations (C.F.R.) Part 279.1, means any person who conducts either of the following activities:

(a) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(b) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in 40 C.F.R. Part 279.11 [as adopted in subsection 62-710.210(2), F.A.C.].

While the definition of a used oil fuel marketer is fairly broad, the Department's requirements for registration and record-keeping are limited in paragraph 62-710.500(1)(c), F.A.C., to "used oil fuel marketers who *sell* used oil fuel." The definition of processor is not intended to extend the registration requirements of subsection 62-710.500(1), F.A.C., and record keeping requirements of subsection 62-710.510(1), F.A.C., to marketers who are not selling used oil fuel. The term marketer in subsection 62-701.201(3), F.A.C., should therefore be read to include only those marketers who sell used oil fuel and both receive used oil from transporters and have at least 25,000 gallons of storage capacity. Notwithstanding the above, a used oil marketer is required to obtain an EPA ID#, keep a record of shipments, and keep copies of analyses of the used oil in accordance with 40 C.F.R. 279.72, 279.73, and 279.74, adopted by reference in Rule 62-710.210, F.A.C.

Used Oil Transfer Facilities

The definition of processor is not intended to include any transfer facility that stores used oil for 35 days or less regardless of the transfer facility's used oil storage capacity, provided the facility is not processing the used oil as described in subsection 62-710.201(2), F.A.C.

Used Oil Storage

Subsection 62-710.401(6), F.A.C., sets out several requirements that apply to the storage of used oil in tanks or containers. These terms "tanks" and "containers" are not defined but should be interpreted broadly to include all types of containers that store used oil, including drip pans and portable collection containers. This means, for example, that all used oil storage tanks and containers must be labeled with the words "used oil" in order to minimize the risk of cross contamination.

Subsection 62-710.401(6), F.A.C., also refers to a "structure" without defining that term. In context, it is clear that this term must refer to those structures which will protect the used oil storage tank or container from the weather in much the same way as would a covering and/or proper use of lids. Any structure other than a building with four walls and a roof must be evaluated on a case by case basis to determine whether it is expected to adequately protect the used oil from the weather (e.g. blowing rain).

All tanks and containers, stored outside of a structure, regardless of their size, must be closed or covered, and must either be double-walled or stored on an oil impermeable surface with engineered secondary containment.

The Department recognizes that it is not always practical to have specially constructed secondary containment for small containers, drip pans, and portable collection containers, and that the environmental risks of a spill of used oil from small containers is minimal. The Department will therefore assume that portable collection containers and other small containers (those with a total capacity of equal to or less than 55 gallons) which are stored on an oil impermeable surface *inside a structure* will meet the secondary containment requirement.

For larger containers, the facility may demonstrate that the building structure meets secondary containment requirements. This demonstration could include, but is not limited to, the following:

- Appropriate documentation (such as an analysis by an engineer with experience in containment structures) that is maintained at the facility to demonstrate the structure's secondary containment is sufficient to contain spills and leaks from containers and prevent migration of used oil to the soil, groundwater or surface water.

- The container(s) is in good condition, and is not stored near a doorway leading outside or on a surface that slopes toward an outside doorway or drain that leads to the environment; the floor surface is in good condition and is oil impermeable, the walls connect to the floor, and there is sufficient volume to collect the used oil if it spills.

In addition, any portable collection containers regardless of size which have wheels, which are typically emptied within 24 hours, and which are stored on an oil impermeable surface inside a structure will meet the secondary containment requirement.

Used Oil Training Manual/Records

Paragraph 62-710.600(2)(b), F.A.C., requires certified used oil transporters to show evidence of familiarity with Florida and federal laws and rules governing used oil transportation and to have an annual and new employees training program in place covering the applicable rules. A record of training must be maintained in the company's operating and personnel files [paragraph 62-710.600(2)(c), F.A.C.]. The used oil transporter is no longer required to submit the training manual to the Department for approval. Instead, the used oil transporter is now required [paragraph 62-710.600(2)(d), F.A.C.] to submit an annual certification with the annual registration "which states that the used oil transporter is familiar with applicable Florida and federal laws and rules governing used oil transportation, has an annual and new employees training program in place covering the applicable rules that is still operating and is being adhered to and is annually reviewed and updated to address changes in regulations which apply to the operation, and which provides an explanation of any modifications to the training program."

Closure Certification

Subsection 62-710.800(3), F.A.C., states that a Professional Engineer registered in the state of Florida must sign and seal the certification of closure completion required in paragraph 62-710.800(5)(e). In addition, the certification must also be signed by the owner or operator of the facility.

If you have any questions or concerns regarding this guidance or the recently revised rules, please feel free to contact Janet Ashwood by phone (850) 245-8789 or email Janet.Ashwood@dep.state.fl.us.