ENVIRONMENTAL GUIDE FOR SALVAGE YARD OWNERS

Protecting the environment is everyone's business









MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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INTRODUCTION

Beyond salvaging auto parts for continued use, all salvage yards generate different waste streams with specific handling and containment requirements designed to protect human health and the environment. This guide highlights *primary* requirements all yard owners and operators should know and understand regarding the various air, waste, water, and clean-up regulations that apply to salvage operations. This guide also advocates use and recycling where possible to recover the value of materials, reduce costs and maximize profits while protecting the environment.

SECONDARY CONTAINMENT

Secondary containment involves structures and operational methods that block or trap hazardous substances and polluting materials. The containment prevents substances from escaping through sewers, drains, or otherwise directly or indirectly into a sewer system, the soil, groundwater, lakes, and streams. Examples of secondary containment include: a metal shed with a sealed concrete floor, barrier structures around an outdoor tank (i.e., a walled enclosure capable of holding a minimum of one and one-half times the amount of liquid in the largest tank within the enclosure), double-walled tanks, and indoor storage rooms without floor drains.

Your facility should use secondary containment for any stored liquids, such as oil, gas, and antifreeze. Secondary containment should also be used when storing lead acid batteries or when removing automotive parts such as engines, transmissions, and pumps that may contain polluting materials. Existing facilities with floor drains that lead to the surface waters, groundwater, or onto the ground must have their drains permanently closed. Flowable concrete designed not to shrink could be used to permanently close an internal floor drain. An inside containment area should be on sealed concrete floors without floor drains. An outside containment area should consist of a sealed concrete slab with raised sides capable of retaining any spills and either roofed to keep storm water out (e.g., rain, snow and ice), or large enough to hold any precipitation plus the required containment volume for stored materials. Proper secondary containment must be designed to prevent material from spraying over the containment wall if a container leaks or ruptures. In general, the distance between the storage container and the secondary containment wall should be the same as the difference between their heights. For example, a four-foot high drum should be placed three feet away from a one-foot high containment wall. Splash guards or baffles may

Metal Sheds



- Metal sheds are available at discount stores. They shelter drums from rain and snow.
- Sheds should be anchored to withstand wind.
- Shed construction should allow air flow to avoid buildup of fumes.
- A concrete base and curb inside the shed can provide secondary containment.
- A ramp provides easy access.

Pole Sheds



- A pole shed with dike provides secondary containment. It should be set back from buildings to meet fire safety requirements.
- Place drums or tanks away from the edge of the dike.
- Roof provides some shelter from rain and snow.
- The shed should be constructed with nonflammable material.
- Use a wet/dry vacuum or pump to remove rainwater.
- The concrete base and dike should be able to trap 150 percent of the contents



Portable Secondary Containment

- It consists of welded metal with sealed joints.
- The lid closes for safety when not in use.
- Wheels allow for easy mobility.
- It can be purchased or fabricated to meet special needs.



Indoor Storage Rooms

- A storage room with curb provides secondary containment.
- Any floor drains should be permanently eliminated to prevent spills from reaching the environment.
- Storage racks and cabinets have sills to trap leaks.
- Drums and containers are properly labeled with safety precautions and labels are visible.
- Drums on pallets allow managers to easily check for leaks.
- Adequate aisle space is provided for moving any containers and emergency response

also be attached to the walls to extend the height of the wall to prevent squirting outside of the system. These measures will prevent any spills or leaks from reaching the environment.

The following secondary containment preventative devices and actions can be implemented and/or constructed:

- Leak-proof dikes or barriers surrounding tanks and drums.
- Curbing capable of retaining any spill
- Sump and collection systems to retain any spill.
- Periodic inspections.
- Preventative maintenance.

Your facility will be required to have a Spill Prevention Control and Countermeasure (SPCC) plan if:

- The total aboveground oil storage capacity is more than 1,320 gallons or a single tank has an above-ground oil storage capacity of more than 660 gallons; and
- Spilled oil could potentially discharge to the surface waters of the state or a sanitary system that discharges through a waste water treatment system to the surface waters of the state.

An SPCC plan is a pollution prevention plan that describes strategies the facility has taken to appropriately manage oil onsite and to promptly report oil spills that may occur. It is important to note that the SPCC regulations are overseen by U.S. Environmental Protection Agency (USEPA). Therefore, compliance questions should be directed to the USEPA Region 5 office. If your facility manages polluting materials onsite that are not considered oil, you may be required to develop a Pollution Incident Prevention Plan (PIPP) as well. The PIPP requirements are similar to the SPCC plan requirements in that it is a written plan that details the pollution prevention measures implemented and spill reporting procedures. However, PIPP requirements are unique to the state of Michigan. Therefore, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) is the agency that oversees the program and any compliance assistance.

For more information on secondary containment, SPCC, or PIPP requirements in Michigan, see Chapter 4 of the Michigan Guide to Environmental, Health, and Safety Regulations at Michigan.gov/EHSGuide and Michigan.gov/Part5.

STORM WATER PERMITS

Under federal and state law, salvage yard facilities that have a point source discharge of storm water to surface waters of the state must be covered by an appropriate industrial storm water permit. Surface waters of the state include rivers, lakes, streams, and wetlands. A point source discharge is any conveyance intended to discharge storm water off site such as a pipe, ditch, channel, county drain, or graded lot. If your storm water discharges to a sanitary or combined sewer, you should contact your local municipality for possible sewage pretreatment permit requirements. New applicants seeking industrial storm water permit coverage for the first time must have a Storm Water Pollution Prevention Plan (SWPPP) and an industrial storm water certified operator overseeing the storm treatment and control measures at the facility before obtaining permit coverage. The SWPPP is a written plan that describes how the facility will minimize the discharge of pollutants via storm water discharges through the implementation of pollution prevention measures. Industrial storm water certified operator trainings and exams are offered by EGLE at every district office throughout the year. Facilities covered by an industrial storm water permit are required to pay an annual fee of \$260. To obtain more information related to the industrial storm water program, visit the Industrial Storm Water Program webpage.

OIL

Used oil must be recycled under Michigan law. Federal and state law prohibits the dumping of oil onto the ground, into sewers, drainage systems, or any waters in the state. When accumulating and shipping used oil to be recycled, it must be managed to meet the liquid industrial by-products regulations, unless it is subject to hazardous waste regulation. It is the generator's responsibility to characterize his or her used oil. Used motor oil is normally subject to liquid industrial by-products regulation. Other used oils may be subject to hazardous waste regulation they contaminated through use.



If used oil is acceptable for reuse "as is" in on-site equipment, it should be accumulated and handled separate from other used oil. If used oil becomes contaminated through mixing with other waste materials like solvents, it may need to be managed

and disposed as a hazardous waste, which is costly. Under Michigan regulations, if the halogen content in used oil exceed 1,000 parts per million, the oil is a presumed hazardous waste and has to be managed as a hazardous waste. The only exceptions are if the generator can prove the halogens are present in the oil from a legitimate use or by performing costly tests to prove the oil meets federally-defined criteria established to "rebut the presumption" the halogens are present from mixing hazardous waste with used oil. Therefore, like with other unwanted liquids, used oil should be accumulated and managed separately from other waste liquids to ensure it can be burned as fuel or recycled into new products economically, rather than disposed as a hazardous waste.

To verify used oil is not subject to hazardous waste regulation, typically all parties handling the used oil (the generator, transporter, and receiving facility) screen the oil for halogens. Halogen test kits for oil can be found by searching on-line or talk with your used oil recycler. Records of the screening measurements should be kept on file as part of your used oil waste characterization record for at least three years.

When accumulating used oil on-site, follow the secondary containment practices specified in this guide. Make sure tanks and containers with used oil are protected from weather, fire, physical damage, and vandals. Make sure the containers and tanks are labeled with the words "used oil" and kept closed, except when adding or removing the oil. Closed for a drum means that the cover is

secured with the snap rings bolted and the bung cap is firmly tightened, except for non-pressurized mobile oil drain pans that must be, at a minimum, emptied when not in use. If you own or operate a used oil collection center or aggregation point, you are also required to provide written notification of that activity to EGLE using the EQP 5150 form.

When shipping used oil off-site for recycling, a licensed liquid industrial by-products transporter is required unless you self-transport your oil. All shipments must be documented on a shipping record that includes all of the following information and accompanies the shipment during transport:

- The name and address (site or mailing) of the generator;
- The name of the transporter;
- The type and volume of liquid industrial byproduct in the shipment;
- The date the liquid industrial by-product was shipped off-site from the generator; and
- The name, address, and site identification (Site ID) number of the designated facility.

The generator must sign the shipping document at the time of pick-up certifying that the information on the document accurately represents the shipment. The generator can only offer shipment to a permitted and registered liquid industrial byproducts transporter. The transporter must also certify to the same and that they have taken possession of the shipment for transport and will deliver it only to the facility listed on the shipping document by the generator. Both the generator and transporter must keep a copy of the signed/certified shipping document for three years and make it available to EGLE staff upon request. The recycling facility must provide notification back to the generator verifying they received the shipment, which must also be recorded and made available for inspection.

Used oil generated on-site can be burned on-site in a furnace without an air permit from Air Quality Division (AQD). However, when burning on-site generated oil without an air permit from AQD, the fuel burning equipment must also meet the following provisions:

- It must have a rated heat input capacity of no more than 500,000 BTU/hour.
- It must be vented to the outdoor air.

- It must only be used for space heating, service water heating, or indirect heating.
- It must only be used to burn used oil. No other waste can be burned in the furnace. Fuel burning equipment used to burn other waste materials are incinerators that must meet much more stringent requirements.

The equipment must be operated and maintained to meet the manufacturer specifications. Any other building and fire codes must also be met.

To burn any used oil generated off-site, an air permit is required from the AQD. If accepting oil from non-households, the site is considered a liquid industrial by-products designated (receiving) facility who must:

- Provide written notification of that activity to EGLE using the EQP 5150 form; and
- Annually report how much used oil was accepted from non-households.

Before receiving any off-site used oil, you will also need information from the generator that confirms the oil is not a presumed listed hazardous waste. The generator information should be confirmed by screening the incoming used oil shipments for halogens at the time of pick-up and delivery. Oil characterization records must be kept on-site available for EGLE inspection to verify only used oil is accepted from off-site for burning. For more information about obtaining an air permit, go to www.michigan.gov/air, click "Permits".

For more information on managing used oil from salvage operations, see the following guidance documents:

- Used Oil Overview
- Used Motor Oil Generator Requirements
- Other Used Oil Generator Requirements
- Burning Used Oil
- Used Oil Sorbents, Oil Contaminated Textiles, & Other Petroleum Contaminated Materials
- Oil Water Separators
- Used Oil Collection Centers and Aggregation Points
- Emptying Product Tanks and Containers

OIL FILTERS



Used oil filters containing terne plated material (an alloy of lead and tin) are classified as hazardous waste when disposed. The manufacturing of these filters was banned in January

1993. The test to determine if oil filters are hazardous is difficult and costly. Since recycling used oil filters as scrap metal makes them exempt from hazardous waste regulations, recycling oil filters for their scrap metal is the best option.

To recycle oil filters, the oil must be drained from the filter. Any of the following methods can be used to drain the oil filters:

- Puncturing the filter anti-drain back valve or the filter dome end and hot- draining;
- Hot-draining and crushing;
- · Dismantling and hot-draining; or
- Any other equivalent hot-draining method that will remove used oil.

By using a filter crusher, an additional seven to nine ounces of oil will be removed from the filter. The collected oil can then be recycled. The filter itself can be taken to a recycling or scrap metal facility to be recycled into useable products or handled by your used oil recycler if they offer that service.

Non-terne used oil filters are not subject to hazardous waste regulation when hot-drained and managed by one of the above methods. If the metal part of the filter is recycled and the filter medium is disposed, then the filter portion would need to be characterized to determine how it must be managed. For information about filter recycling, check your local phone directory or on-line for scrap metal recyclers or check with your used oil recycler to see if they offer that service.

For more details on managing used oil filters, see our Used Oil Filter Generator Requirements and Used Oil Sorbents, Oil Contaminated Textiles, & Other Petroleum Contaminated Materials guidance.

FUEL

Fuel is ignitable and toxic and must be managed as a hazardous waste when disposed. If disposed, it must be transported to a licensed hazardous waste disposal facility by a permitted and registered hazardous waste transporter, using a uniform hazardous waste manifest. However, when recycled and re-refined into fuel, it is subject to regulation as a liquid industrial by-product. When it can be used "as is" without any treatment, it is a product and not subject to waste regulation at all. So the best option for handling fuel is to use it "as is" if possible, storing it separate from off-specification fuel needing to be refined. If it can't be used "as is," it should be sent to a refinery. Find a fuel refinery through an internet search, local telephone directory, or ask your waste vendor for help.

When accumulating off-specification fuel that is to be re-refined as fuel, follow the secondary containment practices specified in this guide. Make sure tanks and containers are protected from weather, fire, physical damage, and vandals. Make sure storage tanks meet the storage tank requirements outlined in this guide. Containers and tanks holding off-specification fuel must be labeled to describe their contents with words like "Off-specification fuel" or "Off-specification diesel" consistent with what is needed by the transporter and refinery. Containers and tanks must be kept closed except when adding or removing fuel. Closed for a drum means that the cover is secured with the snap rings bolted and the bung cap firmly tightened.

When shipping off-specification fuel off-site for recycling, use a licensed liquid industrial by-products transporter. Shipments of fuel being recycled must be documented on a shipping record that includes all of the following information, meets the U.S. Department of Transport regulations, and accompanies the shipment during transport:

- The name and address (site or mailing) of the generator;
- The name of the transporter;
- The type and volume of liquid industrial byproduct in the shipment;
- The date the liquid industrial by-product was shipped off-site from the generator; and
- The name, address, and Site ID number of the designated facility.

The generator can only offer shipment to a permitted and registered liquid industrial by-products transporter. The generator must sign the shipping document at the time of pick-up, certifying that the information on the document accurately represents the shipment. The transporter must also certify to the same, and that they have taken possession of the shipment for transport and will deliver it only to the facility listed on the shipping document by the generator. Both the generator and transporter must keep a copy of the signed/certified shipping document for three years and make it available to EGLE staff upon request. The recycling facility must provide notification back to the generator verifying they received the shipment, which must also be recorded and made available for inspection.

For more information about managing fuel subject to hazardous waste regulation, see Chapter 2.4 of the Michigan Guide to Environmental, Health, and Safety Regulations at www.michigan.gov/ehsguide, including Tables 2.4 and 2.5.

ANTIFREEZE

Like used oil, federal and state law prohibits the dumping of antifreeze onto the ground, into sewers, drainage systems, or any waters in the state. Most wastewater treatment plants cannot process antifreeze either. As such, the best way to manage antifreeze is to send it to be recycled. Just like used oil or any other waste stream, the generator is responsible for characterizing the antifreeze. Most motor vehicle antifreeze does not pick up contaminants from use that makes it a hazardous However, antifreeze from heavy duty waste. equipment, like military or mining vehicles, may produce antifreeze with high levels of lead making it subject to hazardous waste regulation. If handling antifreeze from this type of equipment, it is best to handle it as a universal waste. The universal waste standards are streamlined standards for handling hazardous waste in Michigan.

When accumulating used antifreeze, follow the secondary containment practices specified in this guide. Label universal waste antifreeze "Universal Waste Antifreeze" and non-hazardous antifreeze with words conveying its non-hazardous status like "Non-hazardous Waste Antifreeze." The labeling should match the waste characterization record for the waste. Make sure tanks and containers of waste antifreeze are protected from weather, fire, physical damage, and vandals. Keep containers and tanks closed except when adding or removing the antifreeze.

When shipping used antifreeze, it must be managed to meet the liquid industrial by-products regulations in Michigan. Make sure to document it on a shipping record that includes:

- The name and address (site or mailing) of the generator
- The name of the transporter
- The type and volume of liquid industrial byproduct in the shipment
- The date the liquid industrial by-product was shipped off-site from the generator
- The name, address, and Site ID number of the designated facility

The generator must sign the shipping document certifying that the information is accurate and only offer the antifreeze for shipment in Michigan to a permitted and registered liquid industrial byproducts transporter. At the time of pick-up, the transporter must also certify the information, then deliver the shipment only to the designated facility listed on the shipping document. The shipping document must accompany the shipment during transport. Both the generator and transporter must keep a copy of the signed/certified shipping document for three years and make it available to EGLE staff upon request. The receiving recycling facility must provide notification back to the generator verifying they received the shipment, which must also be recorded and made available for inspection. For more details on managing antifreeze, see our Antifreeze guidance.

LEAD ACID BATTERIES

Lead acid batteries are banned from disposal in Michigan's landfills and incinerators, so you need to return them for recycling. Under state law, lead acid batteries can be managed through delivery to a retailer, distributor, manufacturer or recycling facility. Owners and operators of salvage yards have two options for managing lead acid batteries:

1. Recycle them under Rule 804 of the Part 111 rules, which exempts them from most of the requirements of the hazardous waste regulations. The generator



must characterize the waste batteries and meet land disposal restrictions (see Chapter 2.4.5.c). You do not have to include the battery volume when determining your generator status or use manifests when shipping the used batteries to a recycler. In addition, there is no time limit in the state regulations on how long you may store the batteries before shipping. There may be local ordinances that have time limits or other requirements.

2. Manage them as a universal waste. Universal waste batteries or containers need to be labeled with the words "universal waste battery(ies)," or "waste battery(ies)," or "used battery(ies)."

Store damaged, cracked, or leaking batteries in a closed container until they can be taken to or picked up by a recycling facility. Batteries should never be intentionally cracked open and drained of acid. If batteries are not damaged, they can be placed on wooden pallets on a leak-proof surface until they can be taken away to be recycled. For companies that will take back batteries, search the internet or check your local telephone directory for battery recycling. For more information on handling lead acid batteries. see Michigan Guide Environmental, Health, and Safety Regulations, Chapter 2 at www.michigan.gov/ehsguide and the Universal Waste guidance.

AEROSOL CANS

Aerosol cans are a commonly overlooked hazardous waste. Residues in aerosol containers are exempt from the hazardous waste regulations if the cans are "empty," which means the pressure in the container approaches atmospheric pressure. A practical test to see if a can is empty is to turn the aerosol can upside down and press down on the nozzle. If you don't hear or see anything and the can feels light, it is usually empty. This quick test is not accurate if the nozzle is blocked. Empty aerosol cans should be recycled as scrap metal.



To learn more about characterizing waste from aerosol cans and the air permitting requirements for puncturing aerosol cans, see the On-site Aerosol Can Drum Top Recycling System guidance. Contact our Environmental Assistance Center at 800-662-9278 before purchasing an on-site puncturing device to make sure what you'd like to puncture and recycle is allowed. Only licensed hazardous waste treatment, storage and disposal facilities are allowed to puncture non-empty aerosols cans generated by a small quantity or large quantity hazardous waste generator. If you puncture empty aerosol cans that were generated at another location, be sure to obtain the Safety Data Sheets for all of the material processed, so that the liquids released from puncturing the aerosol cans can be properly characterized.

AIR BAG INFLATORS AND MODULES

Airbag inflators and modules and the regulations they are subject to can be tricky. Airbag inflators and modules, by themselves, can be both explosive (reactive) and ignitable (due to the propellant used in the airbags). Airbag inflators and modules installed in motor vehicles and not subject to a court ordered recall are not subject to hazardous waste regulation when they are shredded as part of a motor vehicle. Airbag inflators and modules not subject to recall, when removed from motor vehicles and reused, are considered commercial chemical products not subject to waste regulation. Airbag inflators and modules removed from automobiles and destined for disposal are a hazardous waste that can cause serious physical injury. They must be managed to meet any court ordered recall order and the hazardous waste regulations or the Interim Final Rule for Safe Management of Recalled Airbags.

See USEPA Interim Final Rule for Safe Management of Recalled Airbags and USEPA memo on the Regulatory Status of Automotive Airbag Inflators and Fully Assembled Airbag Modules for more information. Search by vehicle identification number on the National Highway Traffic Safety Administration recall web page (www.nhtsa.gov/recalls) to see if a vehicle is subject to an airbag recall.

RADIOACTIVE SCRAP METAL

In Michigan and other states, shippers of scrap metal and other recyclable materials may be eligible for a Department of Transportation special permit (DOT-SP 10656) when radioactive material is detected in a shipment. This permit allows the shipment to proceed from the location of detection of the radioactivity back to the place of origin of the shipment without being subject to the classification, packaging and hazards communications requirements of the Department of Transportation rules found in Title 49 of the

Code of Federal Regulations. Eligibility is based upon the state radiation control program's determination that the load meets the requirements of the permit. To obtain a special permit or if you have questions on how to deal with radioactive material, contact EGLE, Radiological Protection Program staff at radioactivematerial@michigan.gov or 517-284-6581.

Refer the Michigan Guide to Environmental, Health, and Safety Regulations, Chapter 10 at Michigan.gov/EHSGguide for additional information on radioactive material regulations.

TIRES

Stockpiled scrap tires are not only a fire hazard but can be a breeding ground for mosquitoes and rodents that can transmit serious diseases. A scrap tire collection site is defined as a site that contains 500 or more scrap tires, or a tire retailer who sells new or retreaded tires whose site contains 1,500 or more scrap tires, or an automotive recycler who sells salvage vehicle parts, salvage vehicles, or scrap metal whose site contains 2,500 or more scrap tires. These sites are regulated by EGLE and have registration, bonding, mosquito control, and pile size limitations. Tires used as vehicle support stands are exempt from regulation.

Old tires can be recycled or disposed by contracting for removal with a registered scrap tire hauler or registering yourself as a hauler and taking them to a registered facility that will process the tires for use in making shoes, belts, floor mats, carpet padding, road fill in asphalt paving, or tire-derived fuel. If the tire casing is in good shape, retreading is another option for used tires. Each tire contains two gallons of oil and can be burned for fuel at a tire-derived fuel plant. One pound of tires contains 12,000-16,000 BTUs of energy, which is slightly higher than coal.

Salvage yards transporting crushed cars containing scrap tires must register annually by January 31, with EGLE as a scrap tire hauler if hauling greater than ten tires at any one time. They also must use a scrap tire manifest for transporting the scrap tires and can only deliver the scrap tires to the authorized location indicated on the scrap tire manifest. The scrap tire hauler registration number must be clearly visible on the motor vehicle used to transport the scrap tires. It doesn't matter if the scrap tires are transported in or on the motor vehicle or trailer, or if they are transported in crushed vehicles. For more information on scrap tires, see the Scrap Tire Information Sheet and Contact Information available at Michigan.gov/ScrapTires.

STORAGE TANKS

Aboveground storage tanks (ASTs) and underground storage tanks (USTs) containing refined petroleum products and other chemicals can be hazards to health, safety, and the environment. Most ASTs and USTs are regulated by both EGLE's Remediation and Redevelopment Division (RRD) and the Department of Licensing and Regulatory Affairs (LARA), Storage Tank Division (STD). Common to salvage yards, underground waste oil tanks are regulated under the Michigan Underground Storage Tank Rules; aboveground waste oil tanks may be regulated under the Storage and Handling of Flammable and Combustible Liquids Rules.

Most USTs containing refined petroleum products and certain chemicals with a capacity greater than 110 gallons are regulated under the Michigan Underground Storage Tank Rules. New USTs and piping (installed after December 22, 1988) must have corrosion protection and overfill protection when they are installed. Older systems (installed prior to December 22, 1988) were required to have these same measures installed by December 22, 1998. A method of release detection is required on most regulated USTs regardless of age. USTs that are registered with the STD as temporarily out of use may remain in the ground for up to one year. USTs that are out of use for more than one year must be removed from the ground.

ASTs containing waste oil are regulated directly by the LARA, STD if the flash point of the oil is below 200 degrees Fahrenheit. If the tank is 1,100 gallons or greater, a plan review and field certification are required. Precautions to control fire hazards and prevent leakage include either single-walled tanks with secondary containment or two-hour fire rated tanks and heat actuated quick-closing valves on below liquid level lines. ASTs containing combustible liquids with a flash point above 200 degrees Fahrenheit are not regulated by the LARA, STD. Check with the local fire department for possible regulations. Leaks and spills of petroleum or chemicals need to be reported to EGLE RRD immediately.

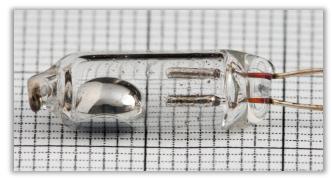
For more information on storage tank regulations and requirements in Michigan, see Chapter 4 of the Michigan Guide to Environmental, Health, and Safety Regulations at Michigan.gov/EHSGuide and Michigan.gov/StorageTanks.

CHLOROFLUOROCARBONS

In the United States, ozone-depleting substances (ODS), like chlorofluorocarbons, are regulated as class I or class II controlled substances. Class I substances have a higher ozone depletion potential and have been completely phased out in the U.S., with a few exceptions. This means no one can produce or import class I substances. Class II are all hydrochlorofluorocarbons substances (HCFCs), which are transitional substitutes for many class I substances. New production and import of most HCFCs will be phased out by 2020. The most common HCFC in use today is HCFC-22 or R-22, a refrigerant still used in existing air conditioners and refrigeration equipment. Because of their danger to the atmosphere, federal law prohibits releasing these materials into the air. CFCs must be carefully removed by a person who is trained, and in most circumstances, certified in a USEPA-approved program that uses USEPA approved equipment.

The proper management of these materials is complex. Go to the USEPA's site on ozone protection regulations at www.epa.gov/ozone-layer-protection for more information. For questions, contact the USEPA at spdcomment@epa.gov.

MERCURY



Mercury Switch

Mercury, a silvery colored liquid metal, is extremely toxic to the nervous system and may impair the way we see, hear, walk, and talk. When spilled, mercury evaporates at room temperature and the vapors cannot be seen, smelled, or tasted. In the environment, mercury can be converted into a form that is especially toxic and can build up in fish tissue.

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The automotive industry has used mercury in tilt switches for under-hood and trunk lamp activation, relays to activate airbags, anti-lock brake systems (mainly in four-wheel drive vehicles), some seat belt systems, and some automatically adjusting suspension systems. Mercury-containing switches should be removed from scrapped vehicles and appliances prior to crushing or shredding to recover the mercury and eliminate potential release to the environment.

Elemental mercury-containing devices can be managed under universal waste regulations instead of the more complex hazardous waste regulations. Store mercury switches in a leak-proof, closed container in a way that prevents the capsules from breaking. Label the container to describe its contents with words like "Mercury Containing Equipment" or "Waste Mercury Switches." Where possible, send mercury switches for recycling. See the Mercury Recycling - Michigan Options for the best information on processing mercury waste.

TORCH CUTTING

Torch cutting of metals that is done on a non-production basis, must be done inside with the emissions not being vented to the outdoor air or in an enclosure that has a properly designed and operated fabric filtration system. If you are able to comply with these requirements you may be able to operate without an air permit.

Additionally, torch cutting must meet the 20% opacity limit. Opacity is defined as the amount of the background that is obscured. These types of operations may not cause a nuisance or interfere with their neighbor's enjoyment of their life and property.



MORE INFORMATION

See the following resources to learn more details about the topics discussed in this guide:

- Michigan Guide to Environmental, Health, and Safety Regulations, Chapter 1 (air), Chapter 2 (waste), and Chapter 3 (water) available on-line at Michigan.gov/EHSGuide.
- EGLE Hazardous Waste and Liquid Industrial By-products Regulations Recorded Webinar Series
 available on-line at Michigan.gov/EGLEwaste, under the "Announcements" tab. The series has
 webinars covering waste characterization, used oil characterization and handling, liquid industrial
 by-products generator and receiving facility requirements, e-Manifest and shipping documents, and
 universal waste antifreeze.
- Waste Quick Look Guide which provides an overview best management practices and the management requirements for waste streams commonly generated at salvage yards.

This publication is intended for guidance only and may be impacted by changes in legislation, rules, policies, and procedures adopted after the date of publication. Although this publication makes every effort to teach users how to meet applicable compliance obligations, use of this publication does not constitute the rendering of legal advice.