Michigan Department of Environmental Quality
Environmental Assistance Program

Michigan Automotive Mechanical Repair Facility

Environmental Compliance Workbook

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Michigan Department of Environmental Quality • www.michigan.gov/deq • (800) 662-9278
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Michigan Automotive Mechanical Repair Facility
Environmental Compliance Workbook

The ***Michigan Automotive Mechanical Repair Facility Environmental Compliance Workbook*** explains the environmental protection requirements that apply to your business and what you need to do if you are not in compliance. In addition, the workbook provides information regarding best management practices and pollution prevention techniques that can help you minimize human health risks and environmental impacts while saving money. The workbook is divided into the following parts:

How to Use This Workbook

Embedded in the workbook are audit questions, which require "yes" or "no" answers about whether or not your facility is following the applicable environmental requirements. If you are planning to start a new business or expand an existing, you should start by reading Part 1, otherwise begin your self-audit at Part 2 of the workbook. **Be sure to answer each question in the order that it is asked. Do not skip any questions unless directed to do so.**

A blank *"Return-to-Compliance Plan"* form is provided as Appendix H at the back of the book. Complete the Return-to-Compliance Plan if your facility is not in compliance with a particular requirement. Assign Return-to-Compliance Plans to your employees to make the corrective actions.

Keep your completed workbook, including any Return-to-Compliance Plans, in your Department of Environmental Quality (DEQ) file. If a DEQ district staff person visits your facility, review the audit questions and plans with them. This review may answer many of their questions resulting in a more streamlined inspection.

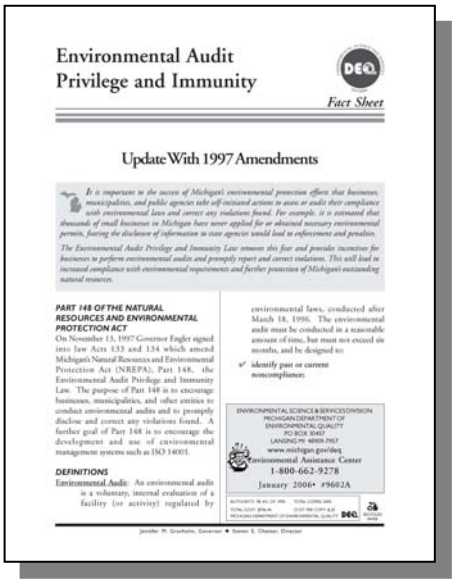
How to Find Supporting Documents

This workbook contains instructions on how access the numerous Web sites and supporting documents that you may want to reference. To make finding these resources a little easier, Workbook Hotlinks. Workbook Hotlinks, which is organized by Parts, contains direct links to all Web sites and documents referenced in the workbook.

Technical assistance staff are available to respond to any question related to state and federal environmental regulations. They can be reached by calling the DEQ's Environmental Assistance Program at (800) 662-9278 or e-mail to **DEQ-EAD-Env-Assist@michigan.gov.**

Environmental Audit Privilege and Immunity

As you go through the self-audit, you may find areas of non-compliance. It is estimated that thousands of small businesses in Michigan have never applied for or obtained necessary environmental permits, fearing the disclosure of information to state agencies would lead to enforcement and penalties. The Environmental Audit Privilege and Immunity Law removes this fear and provides incentives for businesses to perform environmental audits and promptly report and correct violations. This will lead to increased compliance with environmental requirements and further protection of Michigan's outstanding natural resources.


Environmental Audit
Privilege and Immunity

Fact Sheet

Update With 1997 Amendments

PART 148 OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT

DEFINITIONS

In general, the program has two main elements: a privilege that protects the audit report and audit-implementing personnel from disclosure (they cannot be used in legal proceedings against the company), and immunity provisions can be sought for violations that are reported and corrected in accordance with the law. Obtaining privilege involves filing a document called a "*Notice of Intent to Perform an Environmental Audit.*" To be eligible for privilege under this program, this notice must be filed before the audit is commenced and other general provisions must be met such as the findings must be found by the company, (not by DEQ staff). Immunity provisions can be sought later by filing a document called *a "Voluntary Disclosure."* You can learn more about the program at the DEQ's "Environmental Audit Privilege and Immunity" Web page.

Note: The Michigan Automotive Mechanical Repair Facility Environmental Compliance Workbook is an aid for your facility. Although it may overlap with other governmental regulations, the focus of the workbook is achieving environmental compliance. Other governmental regulations may apply but might not pertain to environmental compliance (for example: MIOSHA's Employee Right-to-Know standard). The Michigan DEQ suggests that you follow up with these agencies for proper compliance with their regulations.

*The **Michigan Automotive Mechanical Repair Facility Environmental Compliance Workbook** is intended for guidance only and may be impacted by changes in legislation, rules, and regulations adopted after the date of publication. Although the workbook makes every effort to teach users how to meet applicable compliance obligations, use of this workbook does not constitute the rendering of legal advice.*

This workbook has been reviewed by a steering committee and outside reviewers. Diligent attention was given to assure that the information presented herein is accurate as of the date of publication; however, there is no guarantee, expressed or implied, that use of this workbook will satisfy all regulatory requirements mandated by laws and their respective enforcement agencies. Reliance on information from this document is not usable as a defense in any enforcement action or litigation. The state of Michigan shall be held harmless for any cause of action brought on as a result of using of this publication.

PART 1 - NEW FACILITIES AND EXPANSIONS

Whether a facility is expanding or a new facility is proposed, it is useful to identify necessary permits ahead of time and develop a work plan that assures they will be obtained in a timely manner. Some operational permits must be obtained prior to construction, and other permits regulate the actual construction activities. While many permits will be obtained from your local building department, others will be issued directly by the Michigan Department of Environmental Quality (DEQ). The screening checklist below will help identify relevant DEQ and related environmental permits for your project.

It is recommended that new and expanding facilities complete the checklist below to identify site characteristics that determine the necessity of many construction permits (i.e. presence of wetlands, flood plains, water bodies, and the size of earth disturbance). The screening questions in the left-hand column identify these activities and also reference the appropriate chapter (e.g., 5.3.1) of the "***DEQ Permit and Licensing Guidebook***" to go to for additional help. Visit the DEQ's *Environmental Permits, Licenses, and Certifications* Web page. The right-hand column lists Web sites that contain additional information about the permit program and identifies the relevant page(s) of this workbook. If you answer "yes" to any of the screening questions, please refer to any of the resources listed in the table, or contact the Environmental Assistance Center at (800) 662-9278.

KEY SCREENING QUESTIONS (DEQ Permit and Licensing Guidebook Chapter)	Yes ☐	No ☐	Web Page, Phone Numbers and Reference to Workbook
Air Permits: Does the project involve the installation of a waste oil–fired furnace or other source of air pollution? (5.1.3)	Y☐	N☐	▪ DEQ Environmental Assistance Program (800) 662-9278 for help in determining the need for an air permit. ▪ See page 4-34 of Workbook
Soil Erosion and Sedimentation Control (SESC): Does the project involve an earth change activity within 500 feet of a lake or stream, or will the project disturb an area greater than one acre in size? (5.3.5)	Y☐	N☐	▪ **www.michigan.gov/deqland** (select "Soil Erosion and Sedimentation Control") ▪ SESC Program, (269) 567-3515.
Does the project involve **construction** that will disturb one or more acre(s) that comes into contact with **storm water** that enters a storm sewer, drain, lake, stream, or other surface water?	Y☐	N☐	▪ **www.michigan.gov/deqstormwater** ▪ Water Bureau, Permits Section, (517) 241-8993, or appropriate DEQ Water Bureau District Office
Does the project involve the **construction or modification** of a **water well**?	Y☐	N☐	▪ Contact the county or district health department for your area. ▪ See page 5-1 of Workbook
Does the project involve the **installation of a septic system** for sanitary wastewater?	Y☐	N☐	▪ Contact the county or district health department regarding septic systems designed for domestic septage. ▪ See page 2-4 of Workbook
Does the project involve the installation of a **wastewater treatment system** for non-sanitary wastewater that will **discharge** directly to the ground or surface waters? (5.2.2) (5.2.1)	Y☐	N☐	▪ **www.michigan.gov/deqwater** (select "Groundwater Discharge" or select "Surface Water" then "NPDES.") ▪ Water Bureau, Permits Section (517) 241-8993, or appropriate DEQ District Office for non-domestic wastewater systems. ▪ See pages 2-9 and 2-6 of Workbook

KEY SCREENING QUESTIONS (DEQ Permit and Licensing Guidebook Chapter)	Yes ☐	No ☐	Web Page, Phone Numbers and Reference to Workbook
Does the project require a **site identification number** (EPA number) for regulated waste activities (used oil, liquid waste, hazardous waste, universal waste, PCBs)?	Y☐	N☐	▪ **www.michigan.gov/deqwaste** (select "Michigan Site Identification Form") ▪ Waste and Hazardous Materials Division, (517) 335-2690, or appropriate DEQ District Office. ▪ See page 4-17 of Workbook
Does the project involve the installation of an **aboveground storage tank** for a flammable or combustible liquid such as gas (under 200 degrees Fahrenheit)? (4.3.1.)	Y☐	N☐	▪ **www.michigan.gov/deqland** (select "Storage Tanks" and then "Aboveground Storage Tanks") ▪ Waste and Hazardous Materials Division, (517) 335-7211 ▪ See page 6-1 of Workbook
Does the project involve the installation of an **underground storage tank** for a flammable or combustible liquid such as gas (under 200 degrees Fahrenheit)? (4.3.4.)	Y☐	N☐	▪ **www.michigan.gov/deqland** (select "Storage Tanks" then "Underground Storage Tanks") ▪ Waste and Hazardous Materials Division, (517) 335-7211 ▪ See page 6-1 of Workbook
Does the project involve the installation of an **underground storage tank** for storing chemical or petroleum products such as used oil? (4.3.4.)	Y☐	N☐	▪ **www.michigan.gov/deqland** (select "Storage Tanks" then "Underground Storage Tanks") ▪ Waste and Hazardous Materials Division, (517) 335-7211. ▪ See page 6-1 of Workbook
Does the project involve the installation of a **liquefied petroleum gas** container filling location or storage location that has a tank with a capacity of more than 2,000 gallons or has two (2) or more tanks with an aggregate capacity of more than 4,000 gallons? (4.3.3)	Y☐	N☐	▪ **www.michigan.gov/deqland** (select "Storage Tanks" and then "Aboveground Storage Tanks") ▪ Waste and Hazardous Materials Division, (517) 335-7211 ▪ See page 6-1 of Workbook
Does the project involve filling, dredging, placement of structures, draining, or use of a **wetland**? (5.5.6)	Y☐	N☐	▪ **www.michigan.gov/jointpermit** , or **www.michigan.gov/water** (select "Wetlands Protection") ▪ Land and Water Management Division, Permit Consolidation Unit, (517) 373-9244
Storm Water Discharge to Wetlands: Will storm water be collected, stored, or treated in a wetland area from a public road, industrial, commercial, or multi-unit residential development? (5.5.6)	Y☐	N☐	▪ **www.michigan.gov/jointpermit** or **www.michigan.gov/water** (select "Wetlands Protection") ▪ Land and Water Management Division, Permit Consolidation Unit, (517) 373-9244
Great Lakes: Does the project involve construction, filling, or dredging below the Ordinary High Water Mark of one of the Great Lakes? (5.5.1)	Y☐	N☐	▪ **www.michigan.gov/jointpermit**, and **www.michigan.gov/deqwater** (select "Great Lakes") ▪ Land and Water Management Division, Permit Consolidation Unit, (517) 373-9244
Inland Lakes and Streams: Does the project involve any dredging, filling, placement of structures, or the operation of a marina within an inland waterbody (e.g. lake, river, stream, drain, creek, ditch, or canal), enlargement of a waterbody, or excavation of a pond within 500 feet of a waterbody? (5.5.7)	Y☐	N☐	▪ **www.michigan.gov/jointpermit,** or **www.michigan.gov/deqwater** (select "Inland Lakes and Streams") ▪ Land and Water Management Division, Permit Consolidation Unit, (517) 373-9244

KEY SCREENING QUESTIONS (DEQ Permit and Licensing Guidebook Chapter)	Yes ☐	No ☐	Web Page, Phone Numbers and Reference to Workbook
Storm Water Ponds and Discharges to Inland Lakes/Streams, or Great Lakes: Will storm water from any road or any other part of the development be discharged either directly or ultimately to an inland waterbody, or one of the Great Lakes; or will a storm water pond be constructed within 500 feet of an inland waterbody? (5.5.7), (5.5.1)	Y☐	N☐	▪ **www.michigan.gov/jointpermit** or **www.michigan.gov/deqwater** (select "Inland Lakes and Streams" or select "Great Lakes") ▪ Land and Water Management Division, Permit Consolidation Unit (517) 373-9244
Does the project involve placement of fill, earth moving, or placement of structures within the 100-year **floodplain** of a watercourse? (5.5.2)	Y☐	N☐	▪ **www.michigan.gov/jointpermit** or **www.michigan.gov/deqwater,** select "Wetlands Protection" ▪ Land and Water Management Division, Permit Consolidation Unit (517) 373-9244
Does the project involve construction of a building or septic system in a designated Great Lakes **high risk erosion area**? (5.5.4)	Y☐	N☐	▪ **www.michigan.gov/deqwater** (select "Great Lakes" and then "Shoreland Management") ▪ Land and Water Management Division, Permit Consolidation Unit (517) 373-9244
Does the project involve dredging, filling, grading, or other alteration of the soil, vegetation, or natural drainage, or placement of permanent structures in a designated **environmental area**? (5.5.4)	Y☐	N☐	▪ **www.michigan.gov/deqwater** (select "Great Lakes" and then "Shoreland Management" or "Submerged Lands") ▪ **www.michigan.gov/deqwater** (select "Wetlands Protection") ▪ Land and Water Management Division, Permit Consolidation Unit (517) 373-9244
Does the project propose any development, construction, silvicultural activities or contour alterations within a designated **critical dune area**? (5.5.5)	Y☐	N☐	▪ **www.michigan.gov/deqland** (select "Sand Dunes" and then "Sand Dunes Protection") ▪ Land and Water Management Division, Permit Consolidation Unit (517) 373-9244

Purchasing Potentially Contaminated Property

If you are in the market to purchase or lease property, never assume the property is free of contamination. Prior to purchasing or leasing property, you should consider having an environmental consulting firm complete a Phase I and Phase II environmental site assessment (ESA), and Baseline Environmental Assessment (BEA), on the property.

The purpose of the Phase I and Phase II ESA is to establish whether or not the potential for contamination exists on the property. The Phase I is an in-depth evaluation of the past and current uses of the location, chemical storage on and near the property, and any contaminated sites within a given distance from the property. The Phase I study will establish a list of environmental concerns for the property or within the vicinity of the property. The Phase II study will investigate these potential environmental concerns by confirming the presence of underground storage tanks or abandoned containers, testing the soil and groundwater at suspicious property locations identified by the Phase I and determining the contents of the abandoned containers. If Phase II identifies contamination on the property at levels above the DEQ established residential screening levels, thee property will be considered a contaminated facility.

The future purchaser or leaser is best advised to file a Baseline Environmental Assessment (BEA) with the DEQ. The purpose of the BEA is to establish the means to distinguish a new release from pre-existing contamination so the new owner or operator is not held liable for responding to releases caused by others. The BEA provides liability protection for known and unknown contamination.

For information on purchasing potentially contaminated property, Phase I and II ESA's or BEA process, go to **www.michigan.gov/bea.** To locate environmental consulting firms in your area, go to **www.deq.state.mi.us/sid-web/QC_Search.aspx**.

Green Building & Building Material Recycling

The design, construction, and maintenance of buildings has a tremendous impact on our environment and our natural resources. There are more than 76 million residential buildings and nearly 5 million commercial buildings in the U.S. today. These buildings together use one-third of all the energy consumed in the U.S., and two-thirds of all electricity. By the year 2010, another 38 million buildings are expected to be constructed. The challenge will be to build them smart, so they use a minimum of nonrenewable energy, produce a minimum of pollution, and cost a minimum of energy dollars, while increasing the comfort, health, and safety of the people who live and work in them.

For more information about green construction and the recycling of construction materials, go to **www.michigan.gov/deqconstruction.**

PART 2 - WASTEWATER

The discharge of improperly treated wastewater can result in both soil and water contamination and potentially cost your facility a great deal in cleanup costs and fines. This part will help you determine what type of wastewater you generate and how to dispose of it properly.

Automobile maintenance repair facilities may generate both sanitary and non-sanitary wastewater.

- **Sanitary wastewater** is the wastewater from your restrooms, break rooms, and sinks. Sanitary wastewater does not include wastes generated from repair activities or pouring waste fluids down the drain.
- **Non-sanitary wastewater** is the wastewater that results from your facility activities that contain one or more pollutants. It includes any wastewater generated from the washing of cars, floors, deicing the undercarriage, rinsing dust from brake drums, discharging air compressor condensate, and laundering of towels and rags.

✓ AUDIT QUESTION: Type of Wastewater		
2.1.	What type of wastewater does your facility generate?	☐ Sanitary ☐ Non-Sanitary ☐ Both

Where Does Your Wastewater Go?

Determine which of the following ways your wastewater is disposed, and then complete the corresponding questions. Check all that apply.

- ☐ **Municipal sewer system** – Questions 2.2 – 2.10
- ☐ **On-site septic system** (for sanitary wastewater) – Questions 2.11 – 2.13
- ☐ **Groundwater discharge** to ground, grassy areas, drywells, infiltration basins, or outdoor seepage basins (for non-sanitary wastewater) – Question 2.14
- ☐ **Holding tank** (the contents of which is hauled off-site by a permitted hauler to a disposal facility) – Questions 2.15 -2.19
- ☐ **Surface water discharge** (includes direct discharge to ditch, river, lake, or stream) – Questions 2.20-2.21

After completing the questions in the appropriate sections above, continue with "**Pollution Prevention**" on page 2-6.

Municipal Sewer System

There are two types of municipal sewer systems, generally referred to as "combined" and "separate" (see Figures 2-1 and 2-2 below).

Figure 2-1: Combined Sewer System

A **combined sewer system** is designed to carry both storm water and sanitary wastewater to a publicly owned treatment works (POTW) for treatment.

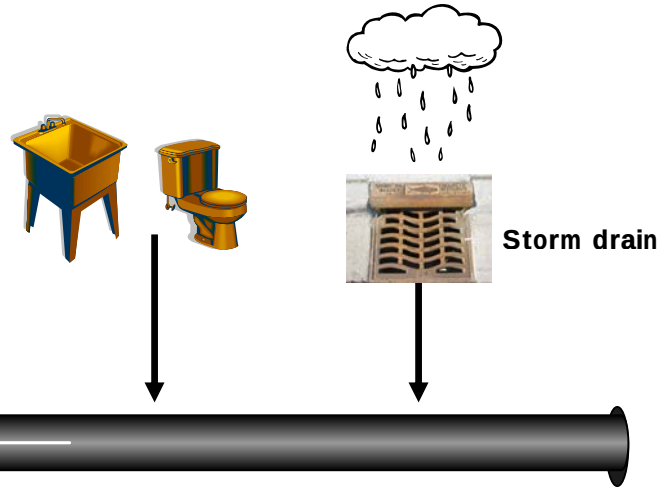
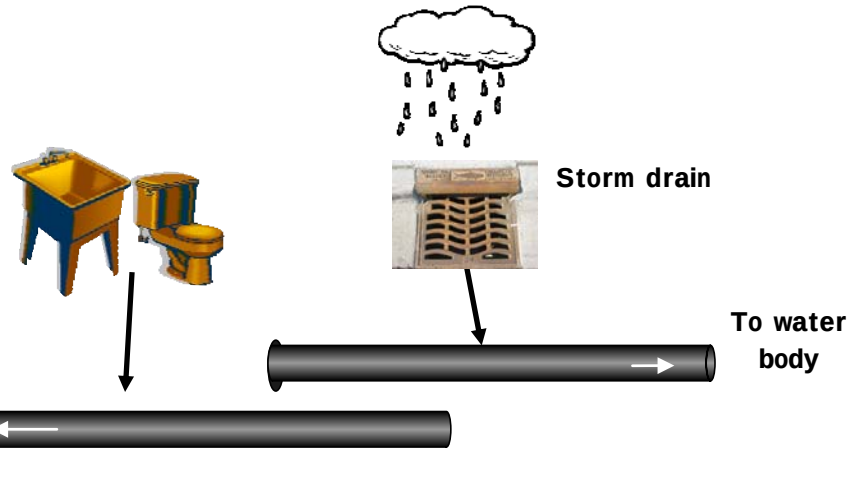


Figure 2-2: Separate Sewer System

A **separate sewer system** takes storm water directly to nearby surface waters and the sanitary wastewater is sent to the POTW.



✓ AUDIT QUESTIONS: Municipal Sewer System			
2.2.	Have you determined if your facility is connected to a "combined" or "separate" sewer system? *Learn and keep records that demonstrate the destination of drains and sewers on the property. If you cannot locate schematics of the building systems and do not know the destination of a drain or sewer, call your POTW, public works department, or sewer authority for guidance. You can also learn more from the U.S. Environmental Protection Agency's (U.S. EPA's) document, "Storm Water Management Fact Sheet: Non-Storm Water Discharges to Storm Sewers." Go to **www.epa.gov/npdes/pubs/nonstorm.pdf**.*	☐ Yes	☐ No (Out of Compliance)
2.3.	Are you discharging non-sanitary wastewater or waste liquids such as citrus cleaners and antifreeze into a combined sewer system or sanitary sewer?	☐ Yes	☐ No (Go to 2.7)
2.4.	Did you obtain written authorization from your POTW to discharge? *Generally, you will be required to fill out an application detailing what wastes you are requesting permission to discharge. Your sewer authority will review the application and determine whether or not you can discharge the waste to their treatment facility.*	☐ Yes	☐ No (Out of Compliance)
2.5.	Have you reviewed with your POTW any requirements for discharge such as monitoring, recordkeeping, sampling, maintenance activities (i.e. oil/water separators or grit chambers maintenance) and whether industrial pretreatment regulations apply?	☐ Yes	☐ No (Out of Compliance)
2.6.	Are you complying with all pretreatment standards or other requirements established by your POTW before discharging wastewater to the sewer system?	☐ Yes	☐ No (Out of Compliance)
2.7.	Is your facility connected to a separate sewer system?	☐ Yes	☐ No (Go to 2.10)
2.8.	Are you discharging non-sanitary wastewater or waste liquids such as antifreeze into the **storm sewer**?	☐ Yes (Out of Compliance)	☐ No
2.9.	Are any of your floor drains connected to the storm sewer?	☐ Yes (Out of Compliance)	☐ No
2.10.	Are you following any of the best management practices listed in Table 2.1?	☐ Yes	☐ No

Table 2.1: BEST MANAGEMENT PRACTICES - *NOT REQUIRED BUT RECOMMENDED*
☐ Trench drains should be cleaned periodically using appropriate disposal techniques (see page 4-15).
☐ Only rain water should enter storm sewers, so prevent sand and other debris from entering storm sewers. The basin at the bottom of the storm sewer allows for settling of sand and other debris. If the basin gets full, it can no longer treat the storm water within the separate storm sewer collection system. Periodically inspect the basins at the bottom of storm sewers to see if your preventative actions are working or whether the basin is full of debris. If debris and grit is present and the basin is over half full, arrange to have it cleaned out by an environmental spill response company (check your Yellow Pages).

Discharges to the Ground

On-Site Septic System (for Sanitary Wastewater)

When a municipal sewer system is not available, most facilities dispose of their sink and bathroom generated sanitary wastewater to an on-site sewage disposal system. Sewage disposal systems consist of a septic tank and a tile field and are designed to capture solids, provide some biological decomposition, and discharge the remaining wastewater to the ground and groundwater through the tile field.

If you have a septic system, you may only use it to discharge sanitary wastewater.

Septic systems are designed to be used solely for disposal of sanitary wastewater. Non-sanitary wastewater discharges can destroy a septic system and turn the septage into a nonhazardous liquid waste or hazardous waste which can be expensive to clean up. **Do not discharge your non-sanitary wastewater into septic systems.** Septic tanks should be pumped out by a DEQ licensed septic waste hauler every two to three years or when needed.

✓ AUDIT QUESTIONS: Septic System			
2.11.	Do you only discharge sanitary wastewater to your septic system? *Sanitary waste includes only bathroom and break room wastewater.*	☐ Yes	☐ No (Out of Compliance)
2.12.	Do you dispose of non-sanitary wastewater (e.g., floor and car wash water and air compressor condensate), or waste liquids (e.g., antifreeze) in toilets or sinks?	☐ Yes (Out of Compliance)	☐ No
2.13.	Do you have any floor drains or sinks that transport any non-sanitary wastewater (i.e. floor and car wash water) to your septic system? *If you have floor drains, they should be rerouted to a holding tank or to the shop's non-sanitary wastewater collection/treatment system provided that the discharge is authorized in your discharge permit.*	☐ Yes (Out of Compliance)	☐ No

Groundwater Discharge (for Non-Sanitary Wastewater)

Some discharges of non-sanitary wastewater to the ground are allowed, but only if authorized by the DEQ by permit. Below are two types of discharges common to facilities that are not connected to a municipal sewer system.

A typical 25 horsepower air compressor can generate approximately 20 gallons of condensate in one day. During the process of compressing air, the air along with water vapor and airborne contaminants are drawn into the compressor intake. Condensate is approximately 99 percent water and one percent oils. This ratio will vary with local climate conditions. Although the volume is not great, there could be a high concentration of VOC's and other organics in the condensate. If the facility desires to discharge the condensate to the ground, representative sampling should be conducted and compared with groundwater regulatory standards for the protection of your property. If the pollutant levels are below standards, the facility can apply for a groundwater discharge permit. As an alternative, the condensate could be collected and hauled to a POTW for disposal.

Power washing the exterior of vehicles (this does not include the undercarriage) parked on an unpaved surface or a grassy area to knock off mud and dirt that does not involve detergent or additives does not require a groundwater permit from the DEQ. If detergents or additives are used, a permit is required.

A groundwater permit is required to discharge less than 2,000 gallons a day of wastewater from an indoor bay for car washing to a drywell (i.e., an outdoor basin where it will seep into the ground) or to a sub-surface infiltration system. This discharge may be covered under the "General Permit for Vehicle Wash Not Open to the Public" if washing is limited to the removal of non-polluting substances from the exterior of vehicles. Also, the portion of the vehicle being washed must not have come in contact with solid, hazardous, or liquid industrial waste.

If wastewater characteristics or on-site activities prevent you from applying for a general permit, a site-specific permit may be tailored for your facility. To be permitted, you must meet strict environmental standards prior to discharge to the ground or groundwater. This could include expensive treatment systems that include air stripping and/or carbon adsorption. In addition, your facility may have to include the following for pretreatment:

- An oil/water separator and a grit chamber (often used to prevent clogging of the infiltration system or equipment).
- A wastewater recycling system (to reduce the amount of wastewater generated).

To obtain authorization for a discharge of wastewater from power washing, car washing, air compressor condensate, or other wastewater to the ground, contact your DEQ Water Bureau district office (Appendix A), or the appropriate Groundwater Permit Section staff. For additional information, go to **www.michigan.gov/deqwater** and select "Groundwater Discharge."

✓ AUDIT QUESTION: Groundwater Discharge				
2.14.	Did you receive authorization for discharges of non-sanitary wastewater to the ground (i.e., to drywells, infiltration basins, and/or infiltration fields) through a groundwater permit?	☐ NA	☐ Yes	☐ No (Out of Compliance)

Holding Tank

Wastewater, excluding septage waste, may be collected in a holding tank and then transported to a recycling or disposal facility. You may haul your non-sanitary wastewater and waste liquids, also known as nonhazardous liquid waste, without being licensed by the Waste & Hazardous Materials Division (WHMD) if the requirements on page 4-37 are met, or you may hire a permitted and registered hazardous or liquid industrial waste transporter. Nonhazardous liquid waste hauled by a permitted and registered transporter must have manifests accompanying the shipment (see page 4-35). Manifests are not required for septage waste hauled by licensed septage waste transporters. Licensed septage waste transporters cannot transport nonhazardous liquid waste or hazardous waste.

✓ AUDIT QUESTIONS: Holding Tank			
2.15.	Are you adhering to the storage requirements beginning on page 4-18 while your nonhazardous liquid waste is being stored on-site?	☐ Yes	☐ No (Out of Compliance)
2.16.	Are you transporting the nonhazardous liquid waste from the holding tank to the recycling or disposal facility?	☐ Yes	☐ No (Go to 2.18)
2.17.	Are you complying with all of the self-transporting requirements beginning on page 4-37?	☐ Yes (Skip 2.18 & 2.19)	☐ No (Out of Compliance. Skip 2.18 & 2.19)
2.18.	Is the wastewater pumped out and hauled away by a permitted and licensed hazardous or liquid industrial waste transporter?	☐ Yes	☐ No (Out of Compliance)
2.19.	Is the shipment of nonhazardous liquid waste manifested? *(See page 4-35 for manifest requirements.)*	☐ Yes	☐ No (Out of Compliance)

Discharges to a Surface Water

The DEQ and the U.S. EPA regulate direct discharges to surface water. You are "directly discharging" to the surface water if your wastewater goes to any lake, stream, river, county drain, roadside ditch, or local storm sewer that goes to a lake, stream, etc.

Your facility cannot directly discharge wastewater legally to surface water, unless you have been issued a wastewater discharge permit under the National Pollutant Discharge Elimination System (NPDES) permit program.

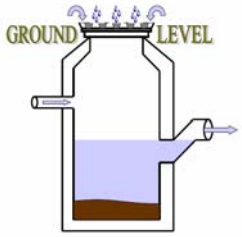
✓ AUDIT QUESTIONS: Surface Water			
2.20.	Did you obtain an NPDES Permit before discharging any wastewater to surface waters?	☐ Yes	☐ No (Out of Compliance)
2.21.	Do you have any floor drains that are connected to a storm sewer that empties to a ditch, river, stream, or other body of water? *Learn and keep records that demonstrate the destination of drains and sewers on the property. If you cannot locate schematics of the building systems and do not know the destination of a drain or sewer, call your POTW, public works department, or sewer authority for guidance. You can also learn more from the U.S. EPA's document, "Storm Water Management Fact Sheet: Non-Storm Water Discharges to Storm Sewers." Go to* ***www.epa.gov/npdes/pubs/nonstorm.pdf****.*	☐ Yes (Out of Compliance)	☐ No

Pollution Prevention

✓ AUDIT QUESTION: Pollution Prevention			
2.22.	Are you following any of the best management practices listed in Table 2.2?	☐ Yes	☐ No

Table 2.2: BEST MANAGEMENT PRACTICES - *NOT REQUIRED BUT RECOMMENDED*

- ☐ Keep your establishment clean. Prevent spills and leaks that may add contaminants to floor rinse waters.
- ☐ Minimize your water usage. Using less water means less wastewater to manage.
- ☐ Run a dry facility. A dry facility uses no water, or very little water, to clean floors.
  - Do not wash the floors or use wet mops to clean up spills.
  - Clean up small spills with rags. Do not saturate rags.
  - If the spills are solvents, use appropriate sorbents or spill kit to clean the spill and dispose of the absorbents as hazardous waste.



- ☐ Only rain water should enter a storm sewer, so prevent sand and other debris from entering the storm sewers in your parking lot. A settling basin at the bottom of the storm sewer allows for settling of sand and other debris. If your basin gets full, then it is no longer helping treat the storm water within the separate storm sewer collection system.
- ☐ Periodically inspect the basins at the bottom of storm sewers to see if your preventative actions are working or whether your basin is full of debris. If debris and grit is present and your basin is over half full, then arrange to have it cleaned out by an environmental spill response company (check your Yellow Pages).

- ☐ Train staff on good housekeeping skills. At the end of the day, spend 15 minutes cleaning up materials.
- ☐ Consider the purchase of grates that remind employees not to dump wastes into the storm sewer.

Annual Wastewater Reporting

A completed Annual Wastewater Report (AWR) must be submitted to the DEQ by manufacturers and certain service related businesses. The purpose of the report is to obtain an annual estimate of the quantities of a specific group of chemicals known as Critical Materials that are entering the waters of the state. Table 2.4 on page 2-9 is a complete listing of Critical Materials. The criterion for choosing these chemicals was based on their toxicity, carcinogenic and bioaccumulative nature, and persistence in the environment. The DEQ uses the information it gathers through the AWR for water pollution control purposes, such as establishing program priorities (i.e., inspections, compliance assistance, spill prevention, etc.)

Automotive maintenance repair facilities do use products containing critical materials like toluene which is found in products like carburetor cleaner. A repair facility that has a reportable wastewater discharge and meets one or both of the following conditions must complete an AWR:

1. **The total amount of a Critical Material found in all products used by the facility in a year exceeds the threshold found in Table 2.4.** *Critical Material Use exemptions may apply. Go to* ***www.michigan.gov/deqannualwastewater*** *for more information.*

   EXAMPLE: A facility uses two products containing toluene, a Critical Material.

   (% by weight of toluene) x (density of product) x (usage rate) = (amount of toluene generated)

   Carburetor Cleaner (30% by weight, toluene)
   0.30 x 7.4 pounds/gallon x 104 gallons/year = 230.8 pounds/year

   Rubberized Undercoat (10% by weight, toluene)
   0.10 x 8.5 pounds/gallon x 3.5 gallons/year = 3.0 pounds/year

Total Toluene Usage

230.8 + 3.0 = 233.8 pounds/year

Since 233.8 pounds of toluene is more than the 100 pound threshold in Table 2.4, a wastewater report is required.

2. The Critical Material(s) enter the sewer system or waters of the state.

EXAMPLE: If you use a carburetor cleaner containing toluene and the overspray lands on the floor, and you wash the floor into the drain to your sanitary sewer, then this condition is met and an AWR must be submitted.

✓ AUDIT QUESTIONS: Annual Wastewater Report		
2.23. Do you have a wastewater discharge to a combined or sanitary sewer system or to waters of the state (i.e. ground, rivers lakes and streams)? *"Wastewater" means all liquid waste discharged resulting from industrial or commercial processes, including contact cooling and condensing waters, but excluding non-contact cooling water, sanitary sewage, and storm water runoff that does not come in contact with process materials, products, or byproducts.*	☐ Yes	☐ No (Done. Go to page 3-1)
2.24. Do you use critical materials in or incidental to your business that exceeds the annual usage threshold in Table 2.4	☐ Yes	☐ No (Go to 2.26)
2.25. Are you completing the Annual Waste Water report? *Annual Wastewater Reports are due on August 1st every year. A copy of the wastewater report forms, instructions, and other related program information can be obtained at **www.michigan.gov/deqannualwastewater**.*	☐ Yes (Done. Go to page 3-1)	☐ No (Out of Compliance. Done. Go to page 3-1)
2.26. Do any of the products you use containing Critical Materials end up in your wastewater discharge? *Answer "Yes" if your POTW ever requested you to sample or report any critical materials to them. Annual Wastewater Reports are due on August 1st every year. A copy of the wastewater report forms, instructions, and other related program information can be obtained at: **www.michigan.gov/deqannualwastewater**.*	☐ Yes	☐ No (Done. Go to page 3-1)
2.27. Are you completing the Annual Waste Water report? *Annual Wastewater Reports are due on August 1st every year. A copy of the wastewater report forms, instructions, and other related program information can be obtained at **www.michigan.gov/deqannualwastewater**.*	☐ Yes	☐ No (Out of Compliance)
2.28. Are you following the best management practices in Table 2.3?	☐ Yes	☐ No

Table 2.3: BEST MANAGEMENT PRACTICES - *NOT REQUIRED BUT RECOMMENDED*
☐ Look for products that do not contain Critical Materials, and keep the products that do contain Critical Materials from entering the sewer.
☐ Keep a chart identifying the Critical Materials in your products and their respective annual usage thresholds. This information can be used to monitor your purchases.

TABLE 2.4 REGISTER OF CRITICAL MATERIALS

Chemical Name	Note	Parameter Number	Annual Usage Threshold (In Pounds)
Aldrin	2,3	00309-00-2	10
Arsenic	1,2	07440-38-2	100
Benz(a)Anthracene	2	00056-55-3	10
Benzene	2	00071-43-2	100
Benzo(a)Pyrene	2	00050-32-8	10
Beryllium	1	07440-41-7	100
4-Bromophenyl Phenyl Ether		00101-55-3	10
Cadmium	1	07440-43-9	100
Chlordane	2,3	00057-74-9	10
Chlorobenzene		00108-90-7	100
Chloroform	2	00067-66-3	100
Chromium	1	07440-47-3	100
Copper	1	07440-50-8	100
P,P'-Dde	2,3	00072-55-9	10
Ddt (P,P', O,P' And Technical Grade)	2,3	00050-29-3	10
Dibenz(A,H)Anthracene	2	00053-70-3	10
1,3-Dichlorobenzene*		00541-73-1	10
1,4-Dichlorobenzene	2	00106-46-7	100
3,3'-Dichlorobenzidine*	2	00091-94-1	10
1,2-Dichloroethane	2	00107-06-2	100
1,1-Dichloroethylene		00075-35-4	100
Dieldrin	2,3	00060-57-1	10
Di-N-Octyl Phthalate		00117-84-0	10
Endrin	3	00072-20-8	10
Heptachlor	2,3	00076-44-8	10
Hexachlorobutadiene	2	00087-68-3	10
Hexachloroethane	2	00067-72-1	10
Heptachlor Epoxide	2,3	01024-57-3	10
Hexachlorobenzene	2	00118-74-1	10
Hexachlorocyclohexane (All Isomers)	2,3	00608-73-1	10
Lead	1	07439-92-1	100
Mercury	1	07439-97-6	10
Methoxychlor	3	00072-43-5	10
Methylene Chloride	2	00075-09-2	10
4,4'-Methylenebis (2-Chloroaniline)	2	00101-14-4	10
Mirex	2,3	02385-85-5	10
Nickel	1	07440-02-0	100
Octachlorostyrene		29082-74-4	10
Pentachlorophenol (And Salts)	2	00087-86-5	10
Polybrominated Biphenyls (Pbb)	2	67774-32-7	10
Polychlorinated Biphenyls (Pcb)	2	01336-36-3	10
Polychlorinated Naphthalenes		CLASS 06-6	10
P,P'-Tde (P,P'-Ddd)	2,3	00072-54-8	10
Selenium	1	07782-49-2	100
Silver	1	07440-22-4	100
Styrene (Monomer)	2	00100-42-5	100
2,3,7,8-Tcdd (And Congeners)	2	01746-01-6	10
2,3,7,8-Tcdf (And Congeners)	2	51207-31-9	10
1,2,3,4-Tetrachlorobenzene		00634-66-2	10
1,2,3,5-Tetrachlorobenzene		00634-90-2	10
1,2,4,5-Tetrachlorobenzene		**00095-94-3**	**10**
Tetrachloroethylene	2	00127-18-4	100
Toluene		00108-88-3	100
Toxaphene	2,3	08001-35-2	10
Tributyltin (And Salts And Esters)	3	CLASS 06-3	10
1,2,4-Trichlorobenzene		00120-82-1	10
1,2,3-Trichlorobenzene		00087-61-6	10
Trichloroethylene	2	00079-01-6	100
2,4,5-Trichlorophenol		00095-95-4	10
2,4,5-Trichlorotoluene		06639-30-1	10
Trifluralin	2,3	01582-09-8	10
Vinyl Chloride	2	00075-01-4	100
Xylene (All Isomers)		01330-20-7	100
Zinc	1	07440-66-6	100

1. All compounds containing the listed elements must also be reported.
2. Carcinogens.
3. Pesticides.

PART 3 – AIR QUALITY

This Part is divided into four sections: cleaning solvents; motor vehicle air conditioning systems; vehicle emission systems; and particulates from abrasive cleaning, grinding, and brake repair.

Section I. Cleaning Solvents

Automotive mechanical repair facilities typically use solvents when cleaning parts and tools and should follow the air, waste, and flammable and combustible liquid requirements mentioned in this section and in other sections of this workbook.

Many cleaning solvents contain volatile organic compounds (VOCs) and hazardous ingredients. VOCs contribute to the formation of ground level ozone, an air contaminant that triggers a variety of health problems including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Some spent solvents may have to be managed as a "hazardous waste" because of its flashpoint, the toxicity of the ingredients, and how it was used. To save on disposal costs, consider using alternative solvents. For example, consider purchasing a product with a higher flashpoint or one that does not contain chemicals listed in the hazardous waste rules (see page 4-3).

✓ AUDIT QUESTIONS: Cleaning Solvents		
3.1. Do you use solvents to clean parts and tools in a parts washer tub, similar to the one shown above?	☐ Yes	☐ No (Go to 3.10)
3.2. Are you complying with all of the following requirements? ☐ Cover is closed except when handling parts in the cleaner. ☐ Cleaned parts are drained for at least 15 seconds before they are removed or until dripping ceases. ☐ Waste solvent is stored in a closed container. ☐ Written procedures identifying the above requirements are posted in an accessible and conspicuous location near the cleaners (see example below).  *You can order stickers to place near your cleaner that meet this requirement by calling (800) 662-9278.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Cleaning Solvents		
3.3. Do any of the cleaning solvents you use contain more than 5% by weight of any of the following: 1) Methylene chloride 2) Trichloroethylene (TCE) 3) 1,1,1, -trichloroethane 4) Perchloroethylene 5) Carbon tetrachloride 6) Chloroform *The halogenated solvents listed above are known or suspected carcinogens. The U.S. Environmental Protection Agency (U.S. EPA) has determined that emissions from cleaning machines using these solvents present a threat to human health or the environment. Therefore, use of these solvents is subject to additional requirements.* *Tip: The MSDS, label, or ingredient listing on the solvent container should show the ingredients and percent by weight.*	☐ Yes	☐ No (Go to 3.5)
3.4. Are you complying with all of the following requirements that apply to machines that use the halogenated solvents listed in Question 3.3? ☐ Submit a notification to the DEQ, which states that you are using one or more of the solvents listed in Question 3.3. The "*Initial Notification Report for All Machines (EQP 3565)"* can be found at **www.deq.state.mi.us/deqforms** (Enter "EQP 3565" in search box) or by calling (800) 662-9278. ☐ If you have a machine in which parts are immersed in solvent for a length of time, there must be a water layer of at least 1 inch on the surface of the solvent within the machine OR there must be a freeboard ratio of at least 0.75. ▪ *The free board height is measured from the solvent fill line to the lip of the machine. To calculate free board ratio, divide the free board height by either the width or length of the machine (which ever is smaller).* ☐ Flush parts in the freeboard area of the machine. ☐ Minimize the pooling of solvent on and in parts. ☐ Do not fill machine above fill line. ☐ Clean up spills immediately. ☐ Store wipe rags in a closed container. ☐ Do not agitate solvent to the point of causing splashing. ☐ When the cover is open, control room drafts. ☐ Do not clean materials that are absorbent, such as sponges, fabric, wood, and paper products).	☐ Yes	☐ No (Out of Compliance)
3.5. Do you use mineral spirits or solvents that have a flashpoint below 140 degrees F, or does your solvent contain compounds listed in the hazardous waste regulations (examples on page 4-4)? *If yes, Include this amount in calculating your hazardous waste generator status (see page 4-7).*	☐ Yes	☐ No

✓ AUDIT QUESTIONS: Cleaning Solvents		
3.6. Do you mix mineral spirits or other solvents in your used oil? *Do not mix wastes in used oil unless documented and approved by the oil recycler, and you meet additional waste and storage tank requirements. Discuss this practice with the DEQ, Waste & Hazardous Materials Division district office (See Appendix A).*	☐ Yes (May be out of Compliance)	☐ No
3.7. Do you operate a solvent distillation unit to reduce solvent purchases and waste disposal costs?	☐ Yes	☐ No (Go to 3.9)
3.8. Are you doing all of the following? ☐ Including the amount of still bottoms, as well as the initial amount of spent solvent put into the still, and all subsequent amounts of new solvent added to replenish the amount lost, when calculating your hazardous waste generator status (see page 4-6). ☐ Meeting the storage requirements beginning on page 4-18 "Step 3" and the disposal requirements beginning on page 4-34 "Step 4." ☐ The still must be approved or listed in accordance with UL 2208 Standard for Solvent Distillation Units. ☐ The still must be located according to manufacturers' instructions and away from ignition sources. ☐ Only use with materials specifically listed on the still label or in the instruction booklet. ☐ The still must meet local fire department requirements. ☐ If the capacity of the solvent still is greater than 55 gallons, a state air permit is required prior to the installation of the unit. For information about the permit requirement, contact the DEQ, Environmental Assistance Program at (800) 662-9278.	☐ Yes	☐ No (Out of Compliance)
3.9. Have you determined if your waste solvent is a hazardous waste, and are you meeting the storage requirements beginning on page 4-18 "Step 3" and the disposal requirements beginning on page 4-34 "Step 4"?	☐ Yes	☐ No (Out of Compliance)
3.10. Have you considered using an "alternative" solvent that contains little or no volatile organic compounds (VOCs) or has a high flashpoint (i.e., greater than 140 degrees F)? *Changing to a less toxic solvent such as biobased soy solvents or aqueous based cleaners can reduce the amount of requirements you are subject to and may also reduce your waste disposal cost. You can find a listing of alternative solvents that you may be able to use at* ***www.cleanersolutions.org/*** *or you can contact your vendor to see if they offer "green" or "environmentally friendly" solvents and cleaning products.*	☐ Yes	☐ No

Section II. Motor Vehicle Air Conditioning Systems

Chlorofluorocarbons (CFCs, Freon, and R-12) are a family of chemicals that are used in a variety of industrial and consumer applications including refrigeration, air conditioning, foam insulation, and solvents. One of the largest uses of CFCs in the United States is refrigerant R-12, used in automobile air conditioners. It is illegal to knowingly release CFCs to the environment. When released into the environment, CFCs rise into the upper atmosphere where they damage the ozone layer, increasing exposure to harmful UV radiation which can lead to skin cancer and cataracts.

The newer refrigerants (R-134a) are hydrofluorocarbons, and although they are non-ozone depleting, they contribute to global warming when released into the air. The U.S. EPA regulates how refrigerants are handled from motor vehicle air conditioners. Your facility is subject to the federal requirements if you receive compensation for servicing, maintaining, or repairing a motor vehicle air conditioner.

✓ AUDIT QUESTIONS: Motor Vehicle Air Conditioning Systems		
3.11. Are all of your mechanics who handle refrigerants been trained and certified by an U.S. EPA accredited program? *A list of approved certification organizations can be obtained by calling the U.S. EPA Hotline at (800) 296-1996.*	☐ Yes	☐ No (Out of Compliance)
3.12. Is a copy of the certification in your files or displayed in your facility?	☐ Yes	☐ No (Out of Compliance)
3.13. Are your mechanics who diagnose, service, repair, and adjust heating and air conditioning systems certified in Heating and Air Conditioning by the Michigan Department of State, Bureau of Regulatory Services? *For more information, contact the Bureau of Regulatory Services at (888) SOS-MICH (767-6424) or go to **www.michigan.gov/sos**, select "Services to Businesses."*	☐ Yes	☐ No (Out of Compliance)
3.14. Is a copy of the Heating and Air Conditioning certificate displayed in your facility?	☐ Yes	☐ No (Out of Compliance)
3.15. Do you vent refrigerants to the atmosphere?	☐ Yes (Out of Compliance)	☐ No
3.16. Are refrigerants only purchased by U.S. EPA-certified technicians?	☐ Yes	☐ No (Out of Compliance)
3.17. Is your refrigerant recovery equipment U.S. EPA-approved and labeled? *A list of U.S. EPA-approved equipment can be obtained by calling the CFC Hotline at (800) 296-1996 or logging onto the CFC Web site at **www.epa.gov/ozone**.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Motor Vehicle Air Conditioning Systems		
3.18. Are your refrigerants stored in tanks that meet the U.S. Department of Transportation (DOT) or Underwriters Laboratories (UL) standards?	☐ Yes	☐ No (Out of Compliance)
3.19. Are the tanks storing refrigerants labeled “Refrigerants”?	☐ Yes	☐ No (Out of Compliance)
3.20. Do you keep a copy of all air conditioning repair transactions at your facility for **five years**?	☐ Yes	☐ No (Out of Compliance)
3.21. Do you keep receipts of all refrigerant purchases for **three years**?	☐ Yes	☐ No (Out of Compliance)
3.22. Do you ship recovered refrigerant to an off-site reclamation facility? *For a list of reclamation facilities, go to **www.epa.gov/ozone/title6/608/reclamation/reclist.html**.* *Refrigerants being recycled or reclaimed are not considered hazardous waste.*	☐ Yes	☐ No (Skip 3.23)
3.23. Do you keep all of the following information on file for **two years**? ☐ Name and address of the refrigerant reclamation facility. ☐ The volume of each shipment of recovered refrigerant sent to the facility.	☐ Yes	☐ No (Out of Compliance)

Q. What should I do with an air conditioning system that contains blended refrigerant (i.e. refrigerant other than R-12 or R-134a)?

A. Technicians have a couple of choices in recovering blend refrigerants. One option is that a technician may permanently dedicate an older piece of equipment they own to recover one or more blended refrigerants. The technician may also use this equipment to recover contaminated R-12 and R-134a and other "mystery mixtures." This equipment, however, may no longer be used to recover uncontaminated R-12 or R-134a. Refrigerant recovered using this kind of "junk" tank must then be shipped off-site for reclamation or destruction. Another option for recovering a blended refrigerant is to use a new piece of U.S. EPA-approved equipment designed to recover, but not reuse, blended refrigerant.

If air conditioning service is not a large percentage of your business, you may be reluctant to invest in another piece of recovery equipment. If this is the case, consider calling a local facility specializing in air conditioning services that may have the equipment necessary to service contaminated refrigerants or refrigerants that are unknown to you.

For more information on the refrigerant recovery requirements, contact the U.S. EPA Ozone Protection Program at (800) 296-1996 or go to **http://www.epa.gov/ozone/strathome.html.**

Section III. Vehicle Emission Systems (Anti-tampering Law)

Motor vehicles contribute nearly half of the total amount of man-made air pollution in the United States. Congress established motor vehicle emission standards for cars and trucks to reduce this pollution and protect public health.

It is illegal under federal law to remove, bypass, disconnect, damage, or in any way render inoperative any emission control device installed on a motor vehicle or motor vehicle engine. This is referred to as tampering. Anyone who tampers with this system may have to pay as much as $2,500 for each car or truck that is tampered with. Dealerships can be penalized up to $25,000. Businesses that sell used vehicles must ensure that the vehicle is equipped with all emission control devices that were originally installed by the manufacturer.

✓ AUDIT QUESTION: Vehicle Emissions Systems		
3.24. Are you aware of the federal regulations that prohibit the tampering or removal of vehicle emission controls (catalytic converters)?	☐ Yes	☐ No (review information below)

If any emission control device goes bad, replace it with original manufacturer's parts or approved or equivalent aftermarket parts. There are only three situations that allow you to install a U.S. EPA accepted aftermarket converter:

1. When the converter is missing from the vehicle when brought in for exhaust system repair.
2. When a state or local inspection program has determined that the existing converter has been lead-poisoned, damaged, or otherwise needs replacement.
3. When the vehicle is more than five years old or has more than 50,000 miles (or eight years old or 80,000 miles on 1995 and newer cars and trucks), and there is a legitimate need for converter replacement that has been established and appropriately documented (such as a plugged converter or unrepairable exhaust leaks).

Converter installers need to keep in mind several requirements and restrictions. Specifically, installers must:

- Make sure that both customer and installer sign a statement concerning why the converter was replaced. Manufacturers either provide a generic version of this kind of statement with the converter, or they have an example printed in their catalogs.
- See to it that the invoice for replacement includes the customer's name and complete address, and the vehicle's make, model year, and mileage, as well as the reason for replacement.
- Retain copies of the above invoices and statements for six months. Also retain the replaced converters for 15 days, and make sure they are marked to identify which customer's car they came from.
- Install the converter in the same location as the original.
- Install the same type of converter as the original: oxidation, three-way, or three-way plus oxidation. This information is sometimes available on the emissions tune-up label or in the manufacturer's application catalog.

- Install the proper converter for the vehicle as determined and specified by the converter manufacturer. There are engine-size and vehicle-weight limitations that make it inappropriate to install certain converters on certain vehicles. Therefore, the catalog should always be consulted for the correct application.
- Make sure the converter is properly connected to any existing air injection components.
- Install all the other required converters the vehicle would have originally come with unless the converter manufacturer has stated in writing that the aftermarket converter is designed to replace more than one converter.
- For new aftermarket converters, fill out the warranty information card supplied by the manufacturer and give it to the vehicle owner or operator.

> *Q. Can I work on a vehicle's exhaust system if the emission control device is missing or has been tampered with?*
>
> *A.* If a repair facility completes, assists, or participates in any way in this act of tampering begun by someone else, it has also acted in violation of the law. For example, if a vehicle is brought into your facility with a missing converter and a replacement pipe is already installed, it is illegal to install a new replacement pipe. Therefore, any work in this area of the exhaust system must include proper catalytic converter replacement (see requirements listed above).

If you have additional questions about the anti-tampering law, contact the U.S. EPA Office of Transportation and Air Quality at (202) 564-1033 or go to http://www.tceq.state.tx.us/implementation/air/mobilesource/vetech/tampering.html**.**

Section IV. Particulates from Abrasive Cleaning, Grinding, and Brake Repair

Facilities engaged in abrasive cleaning, grinding, and brake repair may produce a large amount of fugitive particulate matter (metal filings, dust, etc.). These activities generate dust that could potentially travel beyond the property of your facility. Travel of dust, known as fugitive dust, is a form of air pollution and is regulated and must be minimized.

Do NOT blow dust from brakes and clutches. Do not use compressed air, a brush (wet or dry), or a dry rag to clean brake assemblages because these activities have the potential to expose you to asbestos fibers or particulate.

DO use one of MIOSHA's preferred methods. This is an example of a low pressure/ recycle method also known as the wet brush method

✓ AUDIT QUESTIONS: Particulates from Abrasive Cleaning, Grinding, and Brake Repair		
3.25. Does your facility conduct brake and clutch repair work? *Although the use of asbestos in friction products is declining annually, asbestos is still legal to manufacture, and mechanics still risk a potential exposure to asbestos contained in automotive brakes and clutches on older vehicles in need of service. Since it is difficult to tell whether brake or clutch components contain asbestos, OSHA states that mechanics should assume that all brakes and clutch components contain asbestos. This is because if products containing asbestos are disturbed, thin, lightweight asbestos fibers can be released into the air. Asbestos fibers embedded in the lung tissue over time may result in lung diseases such as asbestosis, lung cancer, or mesothelioma.*	☐ Yes	☐ No (Go to 3.26)
3.26. Are you complying with the following OSHA requirements to minimize employee exposure to dust and asbestos? A. If your facility performs work on no more than five pairs of brakes or clutch jobs per week: ▪ **Wet Wipe Method** – this method involves using a spray bottle or other device capable of delivering a fine mist of water, or amended water (water with a detergent), at low pressure to wet all brake and clutch parts. The brakes can then be wiped clean with a cloth. B. If your facility performs work on more than five pairs of brakes or clutch jobs per week (check one of the following): ▪ **Negative-Pressure Enclosure/HEPA Vacuum System Method** – this type of enclosure and vacuum system has a special box with clear plastic walls or windows, which fits tightly around a brake or clutch assembly to prevent asbestos exposure. ▪ **Wet Cleaning Method** – this specially designed equipment saturates the brake assembly and catches the runoff in a special basin to prevent airborne brake dust from spreading in the work area. *For more information on asbestos and/or OSHA requirement, contact MIOSHA's Asbestos Program Office at (517) 322-1320.*	☐ Yes	☐ No (Out of Compliance)
3.27. Does your facility use a grinder or an abrasive blast-cleaning device (sand blasting)?	☐ Yes	☐ No (Go to 3.29)
3.28. Is the dust generated from the grinder and/or abrasive blast-cleaning device captured by a properly maintained dust collector before the exhaust air is vented into or outside your building?	☐ Yes	☐ No (Out of Compliance)
3.29. Are you properly disposing your brake repair and/or abrasive blast cleaning wastes? *See Audit Questions 4-93 to 4.96 beginning on page 4-30.*	☐ Yes	☐ No (Out of Compliance)

PART 4 - WASTE

Your legal responsibility as a generator of any quantity of waste extends from "cradle to grave." This covers the time from when the waste is first generated through its ultimate disposal. This part of the audit identifies requirements you must meet to properly manage the waste and includes references to other portions in the workbook that contain waste related audit questions.

This Part is divided into four main sections.

SECTION I. IDENTIFYING WASTES AND TIPS FOR REDUCING DISPOSAL COSTS

Mechanical repair facilities must identify what wastes they generate – nonhazardous solid waste, scrap tires, nonhazardous liquid waste, universal waste, and hazardous waste – in order to meet the applicable waste management requirements. You may find it useful to look over the following examples and descriptions of waste often found at repair shops before beginning your own waste determination. Information gathered in this section will be used in the following sections.

Facilities may use knowledge, test results, or both to determine what kind of waste has been generated. Keep records at least **3 years** after the last shipment of any waste to show how the determination was made. Many shops keep the records until they sell the business to prove that they properly handled their waste. Some facilities do waste determinations by:

- Touring the entire shop, office, and outdoor areas and questioning employees about how they do their jobs, what wastes are generated, how much is generated in a calendar month, how much is being stored at any time, and if they have any ideas on how to reduce the amount of waste being generated.
- Looking at their paper records - waste disposal bills and purchasing records, waste manifests, Material Safety Data Sheets (MSDS), etc.
- Sending out waste samples to a lab for analytical testing. The DEQ's "*Waste Characterization*" guidance further explains the steps in determining the different types of waste and the commonly used tests.

For additional help in characterizing your wastes, contact your waste disposal company, consultant, or association representative. They can help you arrange testing, make hazardous waste determinations, and explain what documentation is needed. You may also call your Waste and Hazardous Materials Division staff in the DEQ district office (See Appendix A) if you have questions.

Solid Waste

Solid waste includes wastes that pass the paint filter test (described in Appendix E) and are not nonhazardous liquid waste, universal waste, or hazardous waste described below. The following are common examples of solid waste when they have not been contaminated.

- Boxboard
- Corrugated cardboard
- Drained used oil filters
- Drained and empty fuel pumps/gas filters
- Empty containers
- Empty gas tanks
- Food waste from break room
- Garbage/rubbish
- Pallets
- Paper
- Plastic
- Metal shavings and other scrap metal being recycled
- Sorbents used to clean up oil spills that do not contain free liquids and have not been used to soak up hazardous waste
- Asbestos brake waste

Recycle as many of these materials, especially paper, cardboard, metal, and plastic, as economically feasible. Removing these items from your trash can lower solid waste disposal costs because your dumpster will not fill up as fast. You may even earn money depending on the type and amount of material, since recycling commodity prices fluctuate.

Nonhazardous Liquid Waste

Nonhazardous liquid waste includes wastes that fail the paint filter test (described in Appendix E) and are not regulated as hazardous waste. This waste is referred to as "liquid industrial waste" in the regulations. In addition, it includes some liquid wastes that meet an exemption in the hazardous waste rules, but fail the paint filter test. Common examples of nonhazardous liquid wastes and their specific waste codes, which would be listed on the waste manifest when being transported off-site, are provided in this Part. If a transporter is picking up the waste on a consolidated manifest (explained in Section IV, Step 4), the waste code will also include a "C." For example, used crankcase oil on a consolidated manifest would have the waste code "017LC".

- Used crankcase oil (017L)
- Other oils (transmission fluids, lube oils) (021L)
- Used oil filters (not drained) (017L)
- Antifreeze that is not a hazardous waste (030L)
- Gas being recycled (029L)
- Combined, storm, and sanitary sewer clean-out residue (032L)
- Car wash sludges (035L)
- Storm sewer cleanouts (031L)
- Trench cleanout sludge (029L)
- Mixed nonhazardous solvents (007L)
- Water based-cleaning solutions (034L)

If you have different nonhazardous liquid wastes, see the *"Hazardous Waste, Liquid Industrial Waste, and PCB Manifest Requirements"* guidance for additional nonhazardous liquid waste codes.

Universal Wastes

Universal wastes are specific hazardous wastes identified in the hazardous waste regulations, that a Michigan business can choose to handle under an alternative rule, instead of managing them as hazardous waste. Universal wastes typically found at a repair facility include the following:

- ***Electric lamps*****,** including spent fluorescent tubes, compact fluorescent lights (CFLs), high intensity discharge, sodium vapor, mercury vapor, neon, and incandescent lamps.
- ***Batteries***, including lead acid and dry cell types.
- ***Switches, thermostats, and other devices that contain mercury.***
- ***Computers and electronic office equipment***
- ***Antifreeze***

Two other universal wastes typically not found at automotive mechanical repair facilities are pesticides and pharmaceuticals.

Advantages of handling universal waste include:

- This quantity is not included when calculating the hazardous waste generator status, so for some facilities it can reduce their hazardous waste generator requirements and annual user fees.
- A uniform hazardous waste manifest is not required unless the waste is a liquid.
- A registered and permitted transporter is not required unless the waste is a liquid.

Hazardous Waste

Hazardous waste has specific waste codes and are either considered "listed" because the chemical(s) or the process is included on lists in the regulations (e.g. F list solvents), or because it shows characteristics of being ignitable (D001), toxic (D004-D043), corrosive (D002), or reactive (D003). Ignitable hazardous wastes have a flashpoint below 140 degrees Fahrenheit. Toxic wastes are based on the results of the Toxicity Characteristic Leaching Procedure (TCLP) which is the laboratory test used to determine if a waste meets or exceeds the concentrations that are included in the regulations for 40 specific materials. Corrosive wastes have a pH less than or equal to 2.0, or greater than or equal to 12.5. Reactive wastes undergo rapid or violent chemical reaction and necessitate special handling requirements. Waste codes used on the hazardous waste manifest are identified in the hazardous waste rules. A hazardous waste can have more than one code.

Some materials are NOT regulated as hazardous waste WHEN RECYCLED. If you do NOT recycle the following wastes, they are assumed to be hazardous waste and need to be included in calculating your hazardous waste generator status discussed in Section IV, Step 1.

- Lead acid batteries, lead wheel weights, and other scrap metal.
- Shop towels, wipes, and rags used with solvents when laundered and made from textiles (not paper based).
- Gasoline or diesel fuel.

Examples of Hazardous Wastes Found at Automotive Mechanical Repair Facilities

Solvents used in parts washers and shop rags used to apply or wipe off degreasing solvents – These materials are often hazardous because they contain regulated concentrations of listed chemicals and/or are ignitable. They may also contain heavy metals. The most common listed waste code for solvents used in vehicle repair is F001. The F001 code applies to spent halogenated solvents used in degreasing that before use, contain a total of 10% or more, by volume, of one or more of the solvents listed below; and also includes the still bottoms from the recovery of these spent solvents and spent solvent mixtures:

- Mineral spirits (D001)
- Methylene chloride (F001)
- Tetrachloroethlyene, also known as Perchloroethylene (F001, D039)
- Trichloroethylene (F001, D040)
- 1,1,1-trichloroethane (F001)
- Carbon tetrachloride (F001, D019)

There are several ways you may be able to reduce solvent disposal costs:

- Change how you apply solvents to parts if your designated facility has a lesser charge for disposing of characteristic hazardous wastes than listed hazardous wastes. The U.S. EPA has determined:
  - If a listed solvent is first put onto a rag and then it is used to clean a part, it would be necessary to determine if the used rag has the ignitable characteristic or has regulated concentrations of the solvent.
  - If the listed solvent is put on a part, and then the rag is used to clean the part, the rag is automatically a listed **hazardous waste**.
- Have rags cleaned for reuse.
- Use an on-site solvent recycling unit. Change the solvent being used. For example, if your facility normally uses a solvent that is hazardous waste only because the flashpoint is below 140 degrees Fahrenheit, consider using solvents with a higher flashpoint 140 degrees Fahrenheit or higher. Use brake and carburetor cleaners that do not contain “F” listed solvents. Go to **www.cleanersolutions.org** for help finding alternatives.

Bottoms from parts cleaners and solvent distillation units – are hazardous wastes because they may contain toxic solvents or metals. (D001, and possibly an F listing depending on the solvent.)

Waste gasoline not used as fuel/recycled (D001, D018 for benzene).

Antifreeze – that has been contaminated with gasoline, solvents, or heavy metals especially lead that leached from radiator solder, when the facility does not handle it as universal waste.

Sorbents and rags – if used with listed solvents or to clean up hazardous waste spills.

Windshield glass – may be hazardous waste based on the amount of lead content in the glass. (D008)

Abrasive blasting debris for cleaning brakes or metal parts – may be hazardous depending on the type of metal it was used on and the concentration of that metal in the debris (e.g. some stainless steel contains cadmium). (D006)

Waste aerosol cans that are not completely empty – aerosols like brake cleaner, carburetor cleaner, and other degreasers are often hazardous for the chlorinated solvents they contain or for ignitability of either the solvents or the propellant. When discarded with unused contents, they are hazardous waste. (D001 and possible F listing, depending on solvent.)

It may be useful to document how much hazardous waste is generated monthly, especially if your facility is on the border between the different generator categories of being a Conditionally Exempt Small Quantity Generator and Small Quantity Generator as described in Section IV. See the sample tracking tools and sample calculations shown in Figure 4.1. The hazardous waste worksheet on page 4-7 may help you estimate the total amount of hazardous waste generated in an average month at your facility. Do NOT determine your generator status based only on how much waste is listed on a waste manifest, since that amount can include waste generated over several months or longer. Do NOT include nonhazardous liquid waste and universal waste when calculating your hazardous waste generator status. Once you determine what and how much hazardous waste is at your facility, along with what universal and nonhazardous liquid waste is generated, you will be able to complete the audit questions in Section IV.

Figure 4.1 Sample Tools for Tracking Waste Generation

A monthly tally by weight could be used to show how much was generated per month:

Hazardous Waste Generated per Month		
January	_____	lbs.
February	_____	lbs.
March	_____	lbs.
April	_____	lbs.
May	_____	lbs.
June	_____	lbs.
July	_____	lbs.
August	_____	lbs.
September	_____	lbs.
October	_____	lbs.
November	_____	lbs.
December	_____	lbs.

Hazardous Waste Generated per Month (Example)		
January	75	lbs.
February	75	lbs.
March	100	lbs.
April	125	lbs.
May	100	lbs.
June	75	lbs.
July	75	lbs.
August	100	lbs.
September	100	lbs.
October	125	lbs.
November	100	lbs.
December	125	lbs.

Or keep sample waste logs near the hazardous waste containers:

Employees can mark down how much hazardous waste is put in respective containers each month. When gallons are listed on the container log, it will be necessary to convert that number to pounds, since the regulations are by weight limits. Finally, add the amount for all the containers together.

Used Solvent			
Date waste added:	**How much added:**	**By:**	**Running monthly total**
1/3/08	8 gallons	George G.	8 gallons
1/15/08	7 gallons	George G.	15 gallons
6/1/08	3 gallons	Sammy	3 gallons

Notice the new month's total

To convert gallons of waste to weight, you can:

- Weigh the waste (you do not need to include the weight of the container).
- Use the weight that was used on a previous manifest if it is the same waste.
- Use information from the manufacturer. Example: the MSDS or other literature states the weight per gallon (e.g. the MSDS stated tetrachloroethlyene weighs 13.46 pounds/gallon).
- Calculate the weight by finding the specific gravity of the product from the MSDS and multiply that by 8.34 lb/gal (weight of water) to get the weight of the product in pounds per gallon. Example: methylene chloride has a specific gravity of 1.34 X 8.34 = 11.18 pounds/gallon.

In some cases, the actual weight of the waste may be different from the product since the waste may contain debris and other contaminates.

If you use a still to recycle your solvents, you will need to calculate the amount of used solvent and sludge generated from the recycling unit. Following is an example of how to do that.

Calculating Still Bottoms and Spent Solvent Hazardous Waste Generation			
Week	***Solvent in gallons***	***Sludge in gallons***	
1	***5***		*The sludge is not counted this week as it's already included in the amount of solvent first put in the still*
2	***1/2***	***1/2***	*Need to count the new solvent added to the previous week's recycled solvent plus the amount of sludge generated*
3	***1/2***	***1/2***	*Same as week 2*
4	***1/2***	***1/2***	*Same as week 2*
subtotals	***6.5***	***1.5***	
			6.5 X 11.18 = 72.67 pounds of liquid waste solvent
			1.5 X 13.5 = 20.25 pounds of waste sludge
total			*92.92 pounds of hazardous waste*

Hazardous Waste Worksheet

Note: The following worksheet provides only an approximation of the amount of waste you might generate.

Hazardous Waste		Monthly Generation		
		Gallons	lbs/gallon*	Pounds
Spent solvent *(do not include spent solvents that are reclaimed and returned to your facility's process for reuse)*	☐ Spent solvents *(degreasers or cleaning solvents)*		x __ =	
	☐ Other spent solvents *(brake or carburetor cleaner, etc.) (flash point below 140° F)***		x 7 =	
Unused products which are to be discarded	☐ Unused solvents *(examples above)*		x __ =	
	☐ Other unused *liquids* that are hazardous *(engine paint, etc.)*		x 8 =	
	☐ Other unused *solids* that are hazardous			
Used antifreeze/coolant that is a hazardous waste and not being **managed as a universal waste**.			x 7 =	
Waste gasoline not being recycled.				
Still bottoms from solvent distillation unit.				
Solvent soaked rags or towels that are not being sent to a commercial cleaning service or cleaned on-site for reuse.				
Fluorescent tubes; lead acid and dry cell batteries; thermometers, thermostats, switches, and other devices that contain mercury; computers; and electronic office equipment all of which are not **managed as a universal waste**.				
Other wastes (partially-full aerosol cans, hazardous abrasive blasting debris, etc).				
			TOTAL:	

* Multiply the number of gallons generated by this number to determine the number of pounds generated. Use the actual weight per gallon if known from your MSDS or other source for each waste.

**Solvents with a flash point above 140°F are not considered a hazardous waste if not mixed with other hazardous waste or do not have other hazardous waste characteristics. Manage as a nonhazardous liquid waste. Contact your consultant or Waste and Hazardous Materials Division district office for help determining type of waste generated.

Hazardous Waste Worksheet Example

Hazardous Waste		Monthly Generation		
		Gallons	lbs/gallon*	Pounds
Spent solvent *(do not include spent solvents that are reclaimed and returned to your facility's process for reuse)*	☐ Spent solvents *(degreasers or cleaning solvents)*	7	x 7.5 =	52.5
	☐ Other spent solvents *(brake or carburetor cleaner, etc.) (flash point below 140° F)***	3	x 7 =	21
Unused products which are to be discarded	☐ Unused solvents (examples above)		x __ =	
	☐ Other unused *liquids* that are hazardous *(engine paint, etc.)*	3	x 8 =	24
	☐ Other unused *solids* that are hazardous			
Used antifreeze/coolant that is a hazardous waste and not being **managed as a universal waste.**			x 7 =	
Waste gasoline not being recycled.				20
Still bottoms from solvent distillation unit.				15
Solvent soaked rags or towels that are not being sent to a commercial cleaning service or cleaned on-site for reuse.				
Fluorescent tubes; lead acid and dry cell batteries; thermometers, thermostats, switches, and other devices that contain mercury; computers; and electronic office equipment all of which are not **managed as a universal waste**.				
Other wastes (partially-full aerosol cans, hazardous abrasive blasting debris, etc).				
			TOTAL:	132.5

* Multiply the number of gallons generated by this number to determine the number of pounds generated. Use the actual weight per gallon if known from your MSDS or other source for each waste.

**Solvents with a flash point above 140° F (e.g.,) are not considered a hazardous waste if not mixed with other hazardous waste or do not have other hazardous waste characteristics. Manage as a nonhazardous liquid waste. Contact your consultant or Waste and Hazardous Materials Division district office for help determining type of waste generated.

Use this number to determine your generator status in Step 1 of Section IV.

Tips for Reducing Waste Disposal Costs

To minimize the amount of waste generated at your facility and to save money by reducing disposal costs and annual hazardous waste generator and manifest processing fees, implement the best management practices identified in Table 4.1.

TABLE 4.1 BEST MANAGEMENT PRACTICES — NOT REQUIRED, BUT RECOMMENDED

A business owner or manager can conduct a **waste survey** to properly identify many types and quantities of waste and determine how to reduce waste generation. When you conduct your waste survey:

☐ Observe: If you see your employees mixing hazardous and nonhazardous wastes together, change this practice. This can make recycling easier and disposal less expensive. For example, one gallon of waste solvent mixed into 20 gallons of used oil generates 21 gallons of hazardous waste Do not allow spraying of brake cleaner or other aerosol solvents near used oil and antifreeze collection areas, so the overspray does not contaminate other fluids.

☐ Identify: Less costly alternatives. For example, could a pump spray be used instead of an aerosol can, or a different degreasing solvent?

☐ Look: At contracted services. For example, is it really necessary to have the parts washer serviced monthly if it isn't that dirty? Could it be serviced less frequently like quarterly?

☐ Relocate: Products stored outdoors to either a shed or inside the shop. This will reduce the chances of storm water contamination which would require the storm water to be handled as liquid industrial or hazardous waste.

☐ Reduce: Less waste can translate to less purchasing and disposal costs.

- o FIFO First In, First Out. Use up products before they become too old.
- o Return defective aerosol products to your supplier rather than paying to dispose of the material as hazardous waste.
- o Encourage employees to come up with ideas to reduce waste and save money and by rewarding them with a portion of the savings.
- o Use rechargeable batteries in power tools and diagnostic equipment.
- o Launder rags so they can be reused.
- o Replace incandescent bulbs with longer lasting and more energy efficient lighting like compact fluorescent lights.

☐ Recycle:

- o Check with your community recycling program to see what they will accept from your business. Go to **www.michigan.gov/deqreswastecontacts** to contact a program in your area.
- o If you have materials that are not handled by the community program or are in large quantities, check the Michigan Recycled Materials Market Directory, **www.michigan.gov/deqrmmd** for lists of companies that handle everything from used oil to pallets. The local phone book may also have recyclers listed under "Scrap Metal" or "Waste Reduction, Disposal and Recycling Services."
- o If you generate a lot of waste fluids, you may want to consider setting up an on-site recycling unit.
- o Commonly recycled waste:

- Newspapers
- Office paper
- Cardboard
- Metal
- Pallets/Wood/Skids
- Plastic Containers and auto parts
- Empty aerosol cans
- Empty drums, totes, and pails
- Oils
- Antifreeze
- Solvents
- Batteries
- Tires/Rubber
- Glass

The following sections provide requirements for managing and shipping waste off-site for commonly generated wastes.

SECTION II. MANAGING SOLID WASTE AND SCRAP METAL

Solid Waste On-Site Management

Solid waste includes garbage, rubbish, and other waste that is not regulated as a hazardous waste and does not contain free liquids.

✓ AUDIT QUESTIONS: Solid Waste On-site Management				
4.1.	Is solid waste stored in leak-proof, covered containers (such as a dumpster with lid) so waste can't blow out and containers do not collect rainwater or snow melt? *Waste cannot be stored on the ground. If you hire waste hauling and disposal services, check with your waste company to see if they provide a dumpster or other waste container.*		☐ Yes	☐ No (Out of Compliance)
4.2.	Is a privacy fence around the dumpster? *Some local ordinances require it.*	☐ N/A	☐ Yes	☐ No (Out of compliance)
4.3.	Is banned material in the trash? *Whole tires, used oil, liquid waste, lead acid batteries, and whole drums are banned from disposal in landfills. For more information, see "Talking Trash."*		☐ Yes (Out of Compliance)	☐ No
4.4.	Do you have approval from the landfill or incinerator authority to put hazardous wastes in with your solid waste? *Contact the waste disposal company about what wastes they will accept, for example, sorbents used to clean up oil spills or wastes from Conditionally Exempt Small Quantity Generators (see Section IV).*		☐ Yes	☐ No (Out of compliance)
4.5.	Is liquid waste put in the trash? *This is not an acceptable disposal method.*		☐ Yes (Out of Compliance)	☐ No
4.6.	Do you burn any solid waste without an air permit? *Businesses may not burn waste unless it is done in an incinerator with afterburner that has been permitted by the DEQ, Air Quality Division.*		☐ Yes (Out of Compliance)	☐ No
4.7.	Do you prepare the office paper, boxboard, corrugated cardboard, wood pallets, 55-gallon clean drums, scrap metal, and scrap plastic, etc., according to the recycler's instructions? *Recycling is encouraged but not mandatory. Meet the recycler's requirements for packaging and shipping the materials. If you have small amounts, contact the local recycling coordinator to see what materials are accepted at the community recycling program. Local contacts are listed at* ***www.michigan.gov/deqreswastecontacts****. If you have larger amounts, contact commercial recyclers to see if you have enough to be paid market value. Look for recyclers in the Recycled Materials Market Directory at* ***www.michigan.gov/deqrmmd*** *or in the yellow pages under "Waste Reduction, Disposal and Recycling Services" and "Scrap Metal" headings.*	☐ N/A	☐ Yes	☐ No

Scrap Metal

Scrap metal being recycled is exempt from the hazardous waste regulations. Metal can include shavings, empty gas tanks and aerosol cans, catalytic converters, quarter panels, wiring harnesses, drained filters, and lead wheel weights. Scrap metal has always had a recycling market and can usually be sold for profit rather than paying for disposal. However, all recycling prices fluctuate depending on market conditions.

✓ AUDIT QUESTIONS: Scrap Metal				
4.8.	Does your facility generate scrap metal?		☐ Yes	☐ No (Go to 4.15)
4.9.	Are your metal drums and containers empty before being shipped off-site for recycling?	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.10.	Do you keep drums covered to prevent the collection of rainwater or snowmelt? *If not, the liquid needs to be handled per Section IV. Store indoors or in covered containers to avoid collecting precipitation that will increase liquid waste.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.11.	Is the insulation and coating burned off of copper wire in a furnace that is permitted by the DEQ, Air Quality Division? *Burning is not allowed unless it is conducted in a device with an afterburner that is permitted by the DEQ, Air Quality Division.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.12.	Are gas tanks and other metal containers emptied completely and vented, and fuel filters and pumps drained completely before being shipped off-site for recycling or disposal? *If not empty, these need to be handled as hazardous waste. Plastic gas tanks are not normally recyclable. For recycling metal tanks and filters, check with the local scrap yard or search the "Metals category" in the "Recycled Materials Market Directory" located at **www.michigan.gov/deqrmmd**. Some recyclers require tanks to be cut open. Follow MIOSHA safety standards.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.13.	If metal is not recycled, is it included in calculating your hazardous waste generator status in Section IV, Step 1 depending on type of metal e.g. lead, chromium? *Some stainless steel contains heavy metals in concentrations that can make it a characteristic hazardous waste for toxicity.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.14.	If metal that is being put into your dumpster is a hazardous waste, is your facility a Conditionally Exempt Small Quantity Generator and do you have permission from the waste disposal company?	☐ N/A	☐ Yes	☐ No (Out of Compliance)

Shipping Solid Waste Off-Site

There are several options how solid waste can be shipped off-site. You can hire a waste hauler or haul it yourself. It can be shipped to a recycler or taken to a transfer station, processing plant, landfill, or incinerator, depending on where your facility is located in Michigan. The disposal company may have you fill out a "waste profile" and/or show them your waste determination records (see page 4-1).

✓ AUDIT QUESTIONS: Shipping Solid Waste Off-site				
4.15.	Is solid waste hauled to a licensed landfill, incinerator, and/or properly operated transfer station or recycling facility and are you meeting that waste facility's requirements? *DEQ does not license solid waste haulers, but some counties may require a local license for commercial haulers. Look in the yellow pages under the headings "Garbage and Rubbish Removal" or "Waste Reduction, Disposal and Recycling Services" or check with the landfill to find commercial haulers that service your area.*		☐ Yes	☐ No (Out of Compliance)
4.16.	If you haul your own waste, is the load covered and secured so nothing falls or blows or drips out of the vehicle?	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.17.	If you haul your waste outside your county, is that acceptable by both counties' solid waste management plans? *Contact your county's solid waste designated planning agency to find out where waste can be taken. A contact list is at* ***www.deq.state.mi.us/documents/deq-wmd-swp-dpa.pdf***	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.18.	Do you keep records to show where your solid waste was taken? *Although there are no state regulations requiring records of solid waste shipments, some type of record or billing statement may be useful when you sell the business site to show waste was properly handled or if there are future liability issues at a disposal company.*		☐ Yes	☐ No

SECTION III. MANAGING SCRAP TIRES

Scrap Tires On-Site Management

When NOT properly managed, scrap tires can provide a breeding ground for rodents and mosquitoes. Improperly stored tires can also be a serious fire hazard. Tires used for vehicle support stands are not regulated as scrap tires.

✓ AUDIT QUESTIONS: Scrap Tire Storage				
4.19.	Does your facility generate tires needing disposal?		☐ Yes	☐ No (Go to page 4-15)
4.20.	Have you met local ordinance requirements for storing tires? *Some communities have local ordinances limiting how many tires can be stored without a local permit. These ordinances include storage requirements. Check with the fire department or local building/zoning inspector.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.21.	Do you burn, bury, or dump scrap tires on or off-site? *These practices are illegal.*		☐ Yes (Out of Compliance)	☐ No
4.22.	If you meet one of the criteria below, have you registered and do you meet the scrap tire collection site requirements? ▪ You retail new, retreated, or remanufactured tires and have more than 1500 scrap tires on-site. ▪ You don't sell tires but store more than 500 scrap tires on your property at any one time. *For additional information, go to **www.michigan.gov/deqwaste - Scrap Tires**. Discuss requirements with the DEQ, Waste & Hazardous Materials Division district office (see Appendix A).*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.23.	Are you following any of the best management practices recommended in Table 4.2 below ?		☐ Yes	☐ No

TABLE 4.2: BEST MANAGEMENT PRACTICES - *NOT REQUIRED, BUT RECOMMENDED*
☐ Neatly store scrap tires in one location on your property, instead of scattered around the site.
☐ Train your employees in handling, storage, disposal, and/or recycling practices that follow the regulatory requirements and best management practices described in this section.
☐ Train your employees in emergency response operations in the case of a fire involving scrap tires.
☐ Store scrap tires indoors so they do not collect water and breed mosquitoes. If you must store them outside, store them under cover and protected from the weather.
☐ Keep the tires on rims, if possible, when storing tires outside to reduce water collection.
☐ If water does collect in some of the tires, use citrus oil or baking soda, or commercial larvicide to kill any mosquito larvae in the water.
☐ Have stored scrap tires removed regularly to reduce the number of tires on-site.
☐ Recycle lead wheel weights as scrap metal to avoid handling as hazardous waste. Information about alternative weights is available at **www.leadfreewheels.org**.

Shipping Scrap Tires Off-Site

Several options exist for getting used tires to proper recycling or disposal sites. Tires can be retreaded or reprocessed into many rubber products.

*Hauling more than **7 scrap tires** in a load requires you to be a registered scrap tire hauler.*

DEQ
Michigan Department of Environmental Quality, Waste and Hazardous Materials Division
SCRAP TIRE TRANSPORTATION RECORD

Scrap Tire Transportation Record

✓ AUDIT QUESTIONS: Shipping Scrap Tires Off-Site				
4.24.	Are you shipping scrap tires off-site? *Remember there is a limit of 500 scrap tires if you don't sell tires, or 1,500 scrap tires if you retail tires, that can be stored before needing to register as a collection site.*		☐ Yes	☐ No (Go to page 4-15)
4.25.	Do you contract with a registered scrap tire hauler to haul off scrap tires? *A list of registered haulers is at **www.michigan.gov/deqwaste**. The hauler that picks up the tires must have their scrap tire registration number visibly displayed on the vehicle and a copy of their valid registration in their possession.*		☐ Yes	☐ No (Go to 4.28)
4.26.	Do you receive a copy of the *"Scrap Tire Transportation Record"* (forms EQP 5128 or EQP 5128a) from the tire hauler for each pickup and keep copies at least three years after shipment?		☐ Yes	☐ No (Out of Compliance)
4.27.	Do you receive a signed copy of the *"Transportation Record"* from the end user, processor, or disposer within 30 days of them receiving the scrap tires and do you keep this signed copy at least three years after shipment?		☐ Yes	☐ No (Out of Compliance)
4.28.	If you only have a few tires and put them out for pickup with other garbage, do you have the waste company's approval? *Waste haulers are limited to the number of tires they can accept without becoming a registered scrap tire hauler. Whole scrap tires cannot be disposed of in a landfill, but some landfill authorities will accept them and then sort them out of the other waste.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.29.	If you haul **seven or less** of your own tires, are they taken back to a retailer or to a facility registered or otherwise authorized by the DEQ to take scrap tires and are loads secure so tires do not fall out of the vehicle? *A list of collection sites is at **www.michigan.gov/deqwaste - "Scrap Tires"** or contact your DEQ, Waste & Hazardous Materials Division district office (see Appendix A) for a list. If you haul more than seven tires, you need to register as a scrap tire hauler and use the transportation record.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)

SECTION IV. MANAGING NONHAZARDOUS LIQUID WASTES AND HAZARDOUS WASTES

This section is divided into 4 steps:

Step 1 - Hazardous Waste Generator and Universal Waste Status

Using the information gathered in your waste audit as explained in Section I, identify the total amount of hazardous waste that is generated per calendar month, total amount of all universal wastes accumulated, and identify the types of nonhazardous liquid waste that are generated. This data is needed to identify the appropriate regulations you need to follow to protect the environment and provide the proper notification of regulated waste activities as described in Step 2. Because there are different requirements for the various categories of hazardous waste generators, the questions in Steps 3 and 4 only apply to automotive mechanical repair facilities that are:

- *Conditionally Exempt Small Quantity Generators (CESQG):* **generate less than 220 pounds** of hazardous waste per calendar month and **do not accumulate over 2,200 pounds**. Remember to not include the amount of nonhazardous liquid waste, universal waste generated, and the wastes identified in Section I that are exempted when they are recycled, when calculating the hazardous waste generator status.
- *Nonhazardous Liquid Waste Generators (Liquid Industrial Waste Generators):* the regulations do not include limits on how much waste is generated.
- *Small Quantity Handlers of Universal Waste (SQH)*: accumulate less than 11,000 pounds of all universal wastes.

Steps 3 and 4 do NOT describe the requirements for the following and can not be used to do self audits for:

- *Small Quantity Generators (SQG)*: generate 220 pounds or more, but less than 2,200 pounds of hazardous waste per calendar month and does not accumulate over 13,200 pounds.
- *Large Quantity Generators (LQG)*: generate 2,200 pounds or more of hazardous waste per calendar month, or 2.2 pounds of acute hazardous waste. Repair shops do not normally generate acute hazardous waste.
- *Large Quantity Handlers of Universal Waste (LQH)*: accumulate 11,000 pounds or more of all universal wastes which are identified later in is this step.

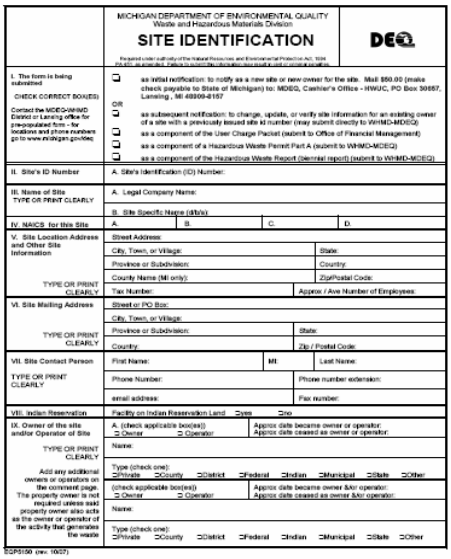
✓ AUDIT QUESTIONS: Hazardous Waste Generator and Universal Waste Status			
4.30.	Are you keeping records for at least **three years** from the waste shipment date that show how you determined that the waste was nonhazardous or hazardous? *Create a filing system where you can keep the documentation. For example, get the test results from the used oil recycler from when they checked the oil before loading that shows the oil is not hazardous waste. Also, get a copy of the MSDS that shows the flashpoint of the product is above 140 degrees F, or other test results from a laboratory. Consider keeping records longer so you can show you have properly handled the waste when you sell the property. MIOSHA requires that you keep your MSDS on file for at least 30 years.* *If you have not kept any records, check with your waste disposal or recycling company to see if they can provide any characterization documentation for shipments within the past three years. If you can not get any documentation, place a note in your characterization file that on this date you found out about the requirement to keep records and from this date on make sure to keep records. Do not "create" false records.*	☐ Yes	☐ No (Out of Compliance)
4.31.	Do you keep records of the amount of hazardous waste you generated each month? *This is not required, but may be useful if your facility is on the border of being either a CESQG or SQG. Such documentation can prove that you are indeed generating the lesser amount of hazardous waste in a calendar month. See examples in Section I, Figure 4-1.*	☐ Yes	☐ No
4.32.	Does your facility generate less than 220 pounds of hazardous wastes per month (approximately 25 gallons) and do you have 2,200 pounds or less (approximately up to 200-250 gallons) stored on-site? *If you answered yes, your facility is a Conditionally Exempt Small Quantity Generator (CESQG) and you can complete this portion of the audit. The gallon examples can vary depending on the waste.*	☐ Yes	☐ No
4.33.	Does your facility generate 220 pounds to less than 2,200 pounds of hazardous waste per month (approximately 25 gallons) and do you have no more than 13,200 pounds stored on-site? *If you answered yes, your facility is a Small Quantity Generator or SQG. You may complete Step 2, but do not proceed with Steps 3 and 4. Contact the Environmental Assistance Program at (800) 662-9278 or the Waste & Hazardous Materials Division (WHMD) district office (see Appendix A) for assistance.*	☐ Yes	☐ No
4.34.	Does your shop accumulate less than 11,000 pounds of universal waste at any time? *If you generate 11,000 pounds or more of universal waste you can complete Step 2, but do not proceed with Steps 3 and 4. Contact the Environmental Assistance Program at (800) 662-9278 or the Waste & Hazardous Materials Division (WHMD) district office (see Appendix A) for assistance..*	☐ Yes	☐ No

Step 2 - Site Identification Number

Facilities that generate and ship hazardous waste and nonhazardous liquid wastes off-site using a waste manifest must notify the WHMD about their regulated waste activities and have a unique site identification number (sometimes called an EPA number). The 12-digit site identification number is used on the waste manifests as discussed in Step 4. Your site identification number will begin with one of the following prefixes: MIK, MIR, MID, MIT, MIE, MI0, or MIG. A facility must obtain a new site identification number every time the owner/operator of the facility changes or if the facility moves to a different location. There is an application fee to apply for a new number and when owner/operator or business name is changed.

CESQGs do not have an annual user charge. Existing facilities should make sure the information on file is current, especially if their waste generation has changed. Some facilities may be spending more money than necessary if they initially notified as a SQG but are now a CESQG because they reduced their waste generation, since a SQG has a $100 annual user charge.

To see if your facility has a site identification number and if the information on record is current, search the "Waste Data System (WDS)" at **www.deq.state.mi.us/wdspi.** For best results, select Advanced Search and enter only the shop's street number in the address field and zip code in the postal code field. If you have questions pertaining to using an existing site identification number or finding the information on file, contact your Waste & Hazardous Materials Division district office (Appendix A) or contact the Environmental Assistance Program at (800) 662-9278.



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Waste and Hazardous Materials Division

SITE IDENTIFICATION

DEQ

I. The form is being submitted — CHECK CORRECT BOX(ES)
Contact the MDEQ-WHMD District or Lansing office for pre-populated form – for locations and phone numbers go to www.michigan.gov/deq
- as initial notification: to notify as a new site or new owner for the site. Mail $60.00 (make check payable to State of Michigan) to: MDEQ, Cashier's Office - HWUC, PO Box 30657, Lansing , MI 48909-8157
OR
- as subsequent notification: to change, update, or verify site information for an existing owner of a site with a previously issued site id number (may submit directly to WHMD-MDEQ)
- as a component of the User Charge Packet (submit to Office of Financial Management)
- as a component of a Hazardous Waste Permit Part A (submit to WHMD-MDEQ)
- as a component of the Hazardous Waste Report (biennial report) (submit to WHMD-MDEQ)

II. Site's ID Number — A. Site's Identification (ID) Number:

III. Name of Site — TYPE OR PRINT CLEARLY
A. Legal Company Name:
B. Site Specific Name (dba's):

IV. NAICS for this Site — A. | B. | C. | D.

V. Site Location Address and Other Site Information — TYPE OR PRINT CLEARLY
Street Address:
City, Town, or Village: | State:
Province or Subdivision: | Country:
County Name (MI only): | Zip/Postal Code:
Tax Number: | Approx / Ave Number of Employees

VI. Site Mailing Address — TYPE OR PRINT CLEARLY
Street or PO Box:
City, Town, or Village:
Province or Subdivision: | State:
Country: | Zip / Postal Code:

VII. Site Contact Person — TYPE OR PRINT CLEARLY
First Name: | MI: | Last Name:
Phone Number: | Phone number extension:
email address: | Fax number:

VIII. Indian Reservation — Facility on Indian Reservation Land ☐yes ☐no

IX. Owner of the site and/or Operator of Site — TYPE OR PRINT CLEARLY
A. (check applicable box(es)) ☐ Owner ☐ Operator | Approx date became owner or operator: Approx date ceased as owner or operator:
Name:
Type (check one): ☐Private ☐County ☐District ☐Federal ☐Indian ☐Municipal ☐State ☐Other
Add any additional owners or operators on the comment page. The property owner is not required unless said property owner also acts as the owner or operator of the activity that generates the waste
(check applicable box(es)) ☐ Owner ☐ Operator | Approx date became owner &/or operator: Approx date ceased as owner &/or operator:
Name:
Type (check one): ☐Private ☐County ☐District ☐Federal ☐Indian ☐Municipal ☐State ☐Other

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To obtain a new site identification number or to update information, follow the instructions and links to form EQP 5150 and online paying option posted at **www.deq.state.mi.us/wdspi**. If you need help applying for a site identification number or updating your notification, contact the Environmental Assistance Program at (800) 662-9278.

The following are commonly missed or incompletely listed on the form EQP 5150:

Box	Commonly missed fields and/or resources to find information:
IV. NAICS for this Site	811111 2002 NAICS for general automotive repair, engine repair shops 811112 2002 NAICS for muffler and exhaust systems 811113 2002 NAICS for transmission shops 811191 2002 NAICS for automotive oil change and lubrication shops, also called Quick-lube shops Additional NAICS codes can be found at **www.naics.com**
V. Site Location Address	Tax Number (look at your tax records) Approximate or Average Number of Employees
IX. Owner and/or Operator of the site	You need to identify both an owner and operator of the business and include the date that happened (month/day/year e.g. 12/12/2007).
X. Regulated Site Activities	Check all applicable boxes. If you generate used oil or other non hazardous liquids, check Liquid Industrial Waste Generator in Box E. Only check universal waste activities in Box D if you accumulate 11,000 pounds or more of all universal waste.
XI. Certification	Make sure authorized person signs and dates the form.

✓ AUDIT QUESTION: Site Identification Number			
4.35.	Does your facility have a site identification number issued for its current physical location and current owner/operator to use on manifests when shipping hazardous waste and nonhazardous liquid waste off-site?	☐ Yes	☐ No (Out of Compliance)

Step 3. – Managing Hazardous, Universal, and Nonhazardous Liquid Wastes On-site

Complete the following general audit questions for your hazardous, universal, and nonhazardous liquid wastes and the audit questions for handling specific wastes.

✓ AUDIT QUESTIONS: Managing Wastes On-site			
4.36.	Is each storage container labeled with the name of the contents (e.g. "used oil" or "spent solvent") and is the label readable? *According to MIOSHA standards, employees have a right to know what is in containers. The container may be labeled using purchased storage labels, a stencil, or shipping labels as shown in Figures 4.2 and 4.3 on page 4-20.*	☐ Yes	☐ No (Out of Compliance)
4.37.	Are containers in good condition and kept closed except when adding or removing waste? *Common violation examples of open containers and tanks include those with open funnels left in them, ones with the bung not screwed back on, buckets of oil without lids, etc.*	☐ Yes	☐ No (Out of Compliance)
4.38.	Is the exterior of the storage containers kept free of waste and its residue?	☐ Yes	☐ No (Out of Compliance)
4.39.	Are containers protected from weather and fire and secure from vandalism and physical damage (e.g., a fork lift or other equipment cannot hit it)? *Employees need to be careful to avoid rupturing the containers or causing them to leak or spill. Weather protection helps to reduce chances of container failure due to contents expanding too much in freezing temperatures and pressure buildup of vapors during the warmer months. It is recommended to not place your containers near floor drains.*	☐ Yes	☐ No (Out of Compliance)
4.40.	If contents have a flashpoint below 200°F, are they isolated according to MIOSHA, local fire department, and your insurance company requirements?	☐ Yes	☐ No (Out of Compliance)
4.41.	Are the containers compatible with the type of waste being stored in them and are containers that have wastes that could react with each other separated by a physical barrier, like a dike, berm, or wall, or by a safe distance? *Never place hazardous wastes that could react with each other in the same container. For example, you should never store acids (like battery acid) and bases (like alkaline rust remover) in the same container. Look at the MSDS for information about container and storage recommendations. You can also talk to your disposal or recycling company for their suggestion or requirement about what type of container to use. Some companies provide storage and/or shipping containers. One Web site that helps identify compatible materials is **www.flw.com/material/index.html**.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Managing Wastes On-site		
4.42. Do you have weekly inspections of the storage area to check that containers are not leaking or rusting and bulges are not present? *This is a recommended practice for CESQG.*	☐ Yes	☐ No
4.43. Are employees trained on how to respond to spills, and are there spill kits available for the type of materials handled at your facility? ☐ *Do employees know when they should clean up small spills or when they should leave the building and call in emergency responders?* *Look at the MSDS for instructions on how to respond to spills. For information on how to handle oil spills, see the U.S. EPA spill response information at* **www.epa.gov/emergencies/content/spcc/index.htm**. *If the facility has large amounts of waste or oils on-site and doesn't have the necessary equipment or its employees trained to handle a spill, arrangements need to be made with a company to provide emergency response services.* ☐ *If employees will be doing cleanup activities, do they have the necessary training?* *Employee training is a requirement under the universal waste regulations and CESQGs are encouraged to have similar training so they know how to handle other hazardous waste and product releases. Discuss HAZWOPER training requirements with the MIOSHA Consultation, Education and Training Division at (517) 322-1809. The MIOSHA standards can be found at* ***www.michigan.gov/miosha***. ☐ *Do employees know where the spill kits and fire extinguishers are located and are you complying with the "MIOSHA Portable Fire Extinguisher standard" and/or "Fixed Fire Extinguisher standard?"* *Spill kits may be purchased or assembled in-house. Have a spill kit available with supplies that can be used when responding to spills of materials at your facility. For example, have cat litter or other sorbents that will soak up small spills of oil on the floor. Have sorbent pigs or pads available from stopping spilled liquids from going down the drains or spreading onto the ground.* ☐ *Do employees know if they need to report a spill? (See page 7-1)* ☐ *Do employees know how to dispose of the cleanup debris if a spill occurs?* *The requirements for handling the debris will depend on if it is hazardous waste and the facility's hazardous waste generator status, or if it is nonhazardous liquid waste or solid waste.* ☐ *Does the facility have an emergency site coordinator and is emergency contact information posted?* *The waste regulations do not require CESQGs to have someone available 24/7 to deal with coordinating emergency response activities, but facilities are encouraged to identify someone, and alternate coordinators, to cover when the primary person is on vacation or not available. CESQGs are also encouraged, but not required, to post the following information near the telephones:* • *Name and telephone number of the emergency coordinator(s).* • *Location of fire extinguishers, alarms, and spill control equipment.* • *Location of fire alarms or the telephone number for the local fire department.* *A self sticking poster where you can list your facility's information is available by calling (800) 662-9278.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Managing Wastes On-site		
4.44. If the waste is a U.S. Department of Transportation (U.S. DOT) hazardous material, is it packaged, marked, and labeled according to requirements before being shipped off-site (e.g., does it have a U.S. DOT shipping label as shown in Figure 4.3. *Not all wastes are USDOT hazardous materials. Some wastes such as flammable and combustible liquids or containers holding one pound or more of mercury are considered USDOT hazardous materials (aka hazmat) and must be shipped in containers acceptable for transportation and properly marked and labeled according to the USDOT requirements. Your transporter and disposal company should be able to assist you with selecting the right container and properly preparing the containers for transport, but ultimately it is your responsibility to make sure it is correct. Contact the Michigan State Police, Traffic Safety Division at (517) 336-6580 with hazmat transportation questions.*	☐ Yes	☐ No (Out of Compliance)

Figure 4.2: Example of Nonhazardous Liquid Waste Storage Label

Figure 4.3: Hazardous Waste Shipping Label

Audit questions relating to on-site management requirements are provided for the specific wastes identified below.

- Aerosol cans
- Air conditioning refrigerants (beginning on page 3-4)
- Antifreeze
- Batteries — Lead acid
- Batteries — Dry cell
- Gasoline, fuel tanks, gas filters
- Light bulbs
- Mercury switches and other devices containing mercury
- Miscellaneous wastes: abrasive blasting waste, brake waste, other hazardous waste with no free liquids, windshields
- Sorbents/Rags/Uniforms and other textiles
- Used Oil
- Used Oil Filters
- Wastewater (including using waste holding tanks) (beginning on page 2-1)
- Waste solvents (beginning on page 3-1)

Aerosol Cans

The waste disposal requirements depend on whether the unwanted can is empty or still contains product such as engine paint. Empty aerosol cans means the pressure in the container is approaching atmospheric pressure and it contains less than one inch of residue. One practical test 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. Do not intentionally spray out the contents just to empty the container.

Cans containing liquid cannot go into the dumpster and must be managed as either a nonhazardous liquid waste or hazardous waste, depending on its contents. Consider using refillable spray bottles as an alternative to aerosol cans.

✓ AUDIT QUESTIONS: Aerosol Cans			
4.45.	Do you use aerosol containers?	☐ Yes	☐ No (Go to 4.55)
4.46.	Does the overspray from aerosol cans contaminate other wastes including oil and antifreeze? *This practice can increase your disposal costs because the other waste may become hazardous waste due to the solvents being mixed with them.*	☐ Yes (Out of Compliance)	☐ No
4.47.	Do you recycle the empty cans as scrap metal? *This is encouraged but not mandatory. The Steel Recycling Institute has* information about recycling aerosol cans. Go to **www.recycle-steel.org/cans.html.**	☐ Yes	☐ No
4.48.	Do you dispose of empty aerosol cans in your dumpster? *As long as they are empty, they can be placed in your dumpster. However, sending them to a salvage yard for recycling is the better option.*	☐ Yes	☐ No
4.49.	Do you generate any unwanted aerosol cans that are not empty?	☐ Yes	☐ No (Done. Go to 4.55)
4.50.	Will your supplier or the manufacturer take back aerosol cans that you don't use and give you credit?	☐ Yes	☐ No
4.51.	Do you dispose of full or partially-full aerosol cans?	☐ Yes	☐ No (Done. Go to 4.55)
4.52.	Have you determined whether your unwanted aerosol cans are hazardous waste or nonhazardous liquid waste? Do you manage them onsite and ship them offsite according to the hazardous waste or liquid industrial waste requirements? *When repair shops discard aerosol cans with unused contents, they are usually hazardous waste for ignitability (D001 waste code) because of the propellant, and brake cleaners and other degreasers commonly also have a F003 waste code depending on the solvent. If hazardous, include that amount in calculating your hazardous waste generator status.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Aerosol Cans			
4.53.	Is a puncturing device used to drain the cans of their contents? *It is not practical for most small facilities to purchase puncturing devices, but if you do, follow the manufacturer's safety measures to protect the worker. Select a device that will safely puncture the can, contain the residual contents, and filter the excess propellant. Discuss the "Hazard Communication/Employee Right-to-Know" standard and the "Flammable and Combustible Liquids" standard, and any other safety and health questions, with the MIOSHA Consultation Education and Training Division at (517) 322-1809.*	☐ Yes	☐ No (Done. Go to 4.55)
4.54.	Have you determined if the carbon filters and collected liquids from the device are hazardous waste and do you manage them onsite and ship them offsite according to the hazardous waste or liquid industrial waste requirements? *If hazardous, include this amount when calculating your generator status. There are additional requirements for using a puncturing device. Discuss your operation with the DEQ, Air Quality Division and Waste & Hazardous Materials Division district office (see Appendix A).*	☐ Yes	☐ No (Out of Compliance)

Antifreeze

Unless you know through lab testing that the spent antifreeze is NOT hazardous, manage and recycle it as a universal waste since recent rule changes provide this option. If you do not handle it as universal waste, then you must determine whether the antifreeze is a nonhazardous liquid waste or a hazardous waste. It may be hazardous when it contains:

- Regulated concentrations of lead and cadmium leach from the radiator. Regulated concentrations of lead have been found in antifreeze removed from radiators made overseas.
- Regulated concentrations of benzene when gasoline leaked into the antifreeze.
- Solvents from overspray from aerosol products like brake and carburetor cleaners.
- Other hazardous wastes that employees mixed with it.

Please read the DEQ publication entitled "Antifreeze" for updates about that rule and additional information and requirements.

✓ AUDIT QUESTIONS: Antifreeze			
4.55.	Does your facility generate used antifreeze?	☐ Yes	☐ No (Go to 4.64)
4.56.	Do you mix any other waste to your used antifreeze? *Before adding any waste to used antifreeze or mixing ethylene glycol and propylene glycols together, check with the recycler on what they allow. Do not use aerosols or other products containing solvents in areas where the antifreeze is handled, so overspray does not get into the antifreeze. By avoiding this, you prevent hazardous waste, thereby saving money on disposal and recycling costs.*	☐ Yes (May Be Out of Compliance)	☐ No
4.57.	Do you pour antifreeze down your sanitary or combined sewer?	☐ Yes	☐ No (Go to 4.59)

✓ AUDIT QUESTIONS: Antifreeze			
4.58.	Have you received written permission from your municipal wastewater treatment plant to do so, and are you following their requirements?	☐ Yes	☐ No (Out of Compliance)
4.59.	Is your antifreeze managed onsite and shipped offsite as a universal waste?	☐ Yes	☐ No (Go to 4.61)
4.60.	Is your antifreeze handled and stored for recycling according to all of the following requirements? ☐ Stored not over one year after generation. ☐ Records are kept that show how long they have been stored using a method that clearly demonstrates how long they have been accumulated. ☐ Storage containers and tanks are labeled "Used Antifreeze" or "Waste Antifreeze" or "Universal Waste Antifreeze"? ☐ Stored in a way that prevents spills or releases. Containers are kept closed, in good condition, and are compatible with the type of waste stored in the containers. ☐ No more than 11,000 pounds of all universal wastes are accumulated at any one time. *The waste code of 030L would be used on the manifest for nonhazardous or universal waste antifreeze when shipped off-site as described in Step 4.* *For a list of recyclers of antifreeze, search the "Oils & Solvents" in the "Recycled Materials Market Directory" located at* ***www.michigan.gov/deqrmmd.***	☐ Yes (Done. Go to 4.64)	☐ No (Out of Compliance. Done. Go to 4.64)
4.61.	Have you determined if the antifreeze is hazardous or a nonhazardous liquid waste and are you managing the waste onsite and shipping the waste offsite according to the applicable waste regulations? *If determined to be hazardous, be sure to include the amount when determining your generator status (Section IV, Step 1).If it is being handled as a hazardous waste, the waste code would depend on the contaminant.*	☐ Yes (Done. Go to 4.64)	☐ No (Out of Compliance)
4.62.	If you use an on-site antifreeze recycling unit, have you determined if the sludge from the recycling unit is hazardous waste? ☐ N/A *Unless you know through lab testing that the wastes residues from the recycling process are NOT hazardous, manage the residues as hazardous waste. Include hazardous waste sludge when calculating your generator status. The waste code would depend on the contaminant.*	☐ Yes (Done. Go to 4.64)	☐ No (Out of Compliance. Done. Go to 4.64)
4.63.	Do you put used antifreeze into a septic tank, dumpster, storm drain, on the ground, in the water, or dispose of by burning?	☐ Yes (Out of Compliance)	☐ No

Batteries – Lead Acid

Michigan companies have the choice of managing lead acid batteries under a hazardous waste rule specific to this type of battery or handling them as a universal waste. It is easier to handle them under the hazardous waste rule so the audit questions do not cover managing them as universal waste. Batteries are not included when calculating your hazardous waste generator status.

✓ AUDIT QUESTIONS: Batteries – Lead Acid				
4.64.	Does your shop generate used lead acid batteries?		☐ Yes	☐ No (Go to 4.68)
4.65.	Are employees trained on handling the batteries and storage practices so they don't break open and/or leak, and are you doing <u>all</u> of the following? ☐ Batteries protected from freezing. ☐ Batteries are protected from sparks and flames and kept in an area where no smoking is allowed. ☐ Batteries are kept indoors in a single layer on an impervious surface like concrete coated with epoxy, or inside containment like a plastic tub or child's plastic swimming pool.		☐ Yes	☐ No (Out of Compliance)
4.66.	Are you complying with local restrictions on battery storage, including how long the batteries can be stored on-site? *When batteries are recycled, there is not a time limit in the state regulations for how long they can be stored as long as they are in good condition.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.67.	Are you returning the batteries to a retailer, or have you met your lead acid battery recycler requirements? *Lead acid batteries are banned from being landfilled or incinerated. The transporter should be able to ensure your shipment meets the USDOT transportation requirements. A hazardous waste manifest is not required to be used with lead acid battery shipments. The state regulations no longer require a "core charge." If a retailer or recycler is charging that fee, it is part of doing business with that particular company.*		☐ Yes	☐ No (Out of Compliance)

Batteries – Dry Cell and Rechargeable

Dry cell and rechargeable batteries are used to power portable diagnostic and power tools, flashlights, calculators, and are found in computers, clocks, and other equipment. It is recommended to handle dry cell and rechargeable batteries as a universal waste, which means they are not included in calculating your hazardous waste generator status. The nickel batteries from hybrid vehicles can also be managed as universal waste batteries when they are not returned to the manufacturer who may buy them from you.

✓ AUDIT QUESTIONS: Batteries – Dry Cell			
4.68.	Does your facility generate used dry cell and/or rechargeable batteries?	☐ Yes	☐ No (Go to 4.74)

✓ AUDIT QUESTIONS: Batteries – Dry Cell			
4.69. Does your facility use rechargeable batteries wherever possible? *Not required, but rechargeable batteries may keep purchasing costs down because you won't have to buy as many dry cell batteries, which could also reduce disposal costs. Check the national recycling program sponsored by the Rechargeable Battery Recycling Corporation at* ***www.rbrc.com.***		☐ Yes	☐ No
4.70. If dry cell and/or rechargeable batteries are put in the trash, did you receive the waste disposal company's approval to do so? *It is recommended these batteries be recycled, but it is not required. Only CESQGs can put these in the trash (dumpster) with permission from the waste company. Some transporters and landfills do not accept. If you do not recycle them, be sure to include them in your monthly hazardous waste calculations (see page 4.5). Dry cell batteries may contain regulated amounts of lead (D008), mercury (D009), cadmium (D006), or have reactivity characteristics (e.g. lithium-sulfur dioxide D003).*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.71. Are used dry cell and rechargeable batteries managed onsite and shipped offsite as a universal waste?		☐ Yes	☐ No (Go to 4.73)
4.72. Are used dry cell and rechargeable batteries handled and stored for recycling according to <u>all</u> of the following requirements? ☐ Stored not over one year after generation. ☐ Records are kept that show how long they have been stored using a method that clearly demonstrates how long they have been accumulated. ☐ Labeled, or the container holding the batteries, is labeled with the following: "*universal waste battery(ies),*" "*waste battery(ies),*" or "*used battery(ies).* ☐ Stored in a way that prevents spills or releases. Containers are kept closed, in good condition, and are compatible with the type of waste stored in the containers. ☐ No more than 11,000 pounds of all universal wastes are accumulated at any one time. *For a list of recyclers of dry cell batteries, search the "Miscellaneous category" in the Recycled Materials Market Directory.*		☐ Yes	☐ No (Out of Compliance)
4.73. Are used dry cell and rechargeable batteries managed onsite and shipped offsite as a hazardous waste? *If you don't have permission to dispose of the batteries in the trash and are not managing them as a universal waste, your only option is to dispose of the batteries as a hazardous waste.*		☐ Yes	☐ No (Out of Compliance)

Gasoline and Undrained Gas Filters

Empty gas tanks and drained filters are discussed in Section II under scrap metal.

✓ AUDIT QUESTIONS: Gasoline and Undrained Gas Filters			
4.74. Does your facility generate unwanted gasoline and/or undrained gas filters?		☐ Yes	☐ No (Go to 4.79)

✓ AUDIT QUESTIONS: Gasoline and Undrained Gas Filters				
4.75.	Has the fuel been removed from the vehicle tank in accordance with the MIOSHA standard for "Automotive Service Operations?" *MIOSHA requires an approved pumping device equipped with a ground strap to be used when removing flammable liquid from a vehicle tank and the tank to be thoroughly evacuated and maintained free of all explosive vapors or gasoline before doing welding or soldering repairs. Discuss requirements with MIOSHA Consultation Education and Training Division at (517) 322-1809.*		☐ Yes	☐ No (Out of Compliance)
4.76.	Is the unwanted gasoline being used as is, with no filtering or other type of treatment, in other vehicles or equipment? *If the gas can be used as a fuel as it is, it is a product and not a waste. It is recommended the facility keep records where the gas went, when, etc. so there is documentation that the gas wasn't being improperly disposed of. If the gasoline will be used for vehicle fuel, it needs to meet the requirements for fuel quality that is regulated by the U.S. EPA and the Michigan Department of Agriculture.*		☐ Yes	☐ No
4.77.	If the gasoline and/or undrained fuel filters will be shipped offsite for recycling or fuel blending, are you managing it as a liquid industrial waste? *These wastes are not included in your generator status because they are exempt from the hazardous waste regulations, but must be managed as liquid industrial waste and shipped on manifest using 029L waste code.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.78.	If the unwanted gasoline and/or undrained fuel filters are not being reused as a product or recycled, are you managing them onsite and shipping the waste offsite as a hazardous waste, and has this amount been included when calculating your generator status? *Occasionally a shop may have gasoline and undrained filters that need to be disposed of as hazardous waste that a recycler will not accept. The gasoline would be a D001 hazardous waste for ignitability. If there were gasoline soaked rags or undrained gas filters, they are also D001 hazardous waste because of solids being ignitable via spontaneous combustion. The storage of the fuel before shipping would fall under the flammable and combustible liquid regulations as described in Part 5.*		☐ Yes	☐ No (Out of Compliance)

Light Bulbs

There is a lot of confusion about how to handle light bulbs because there are different requirements for the following: a household, a CESQG and other hazardous waste generator categories, when handled as universal waste, and when a business uses low mercury bulbs. Many light bulbs contain enough mercury and lead to make them hazardous waste but there are brands available that have been designed with low levels of metals that are not regulated as hazardous waste.

Recycling is recommended for all spent bulbs, and when managed as universal waste, you do not need to include the amount when calculating your hazardous waste generator status.

Business Tip

By replacing that one 100 Watt incandescent light bulb, that you may keep on all day and night for security purposes, with a compact fluorescent lamp (CFL), you can save $ 21.65 in two years and $67.65 over 5 years in energy costs.

✓ AUDIT QUESTIONS: Light Bulbs				
4.79.	Does your facility use <u>only</u> low mercury bulbs, have documentation of what is being used, and do you put used bulbs in the trash with approval by the waste company? *Recycling of all bulbs is recommended, but low mercury bulbs are not regulated hazardous waste and can be put in the trash (dumpster) with permission from the waste disposal company. Some transporters and landfills do not take them because of worker safety concerns from glass breaking and because they still contain small amounts of mercury and lead. The low mercury bulbs may be called "green tip bulbs" because the end caps are green metal or the label on the bulb is green. You do not need to include these bulbs when calculating your hazardous waste generator status.*		☐ Yes (Go to 4.84)	☐ No
4.80.	Does your facility use fluorescent tubes, compact fluorescent lamps (CFLs), incandescent lamps, or other lighting that contains regulated amounts of mercury or lead and put them in the trash without the waste company's approval? *These bulbs are commonly used. Only CESQG can put these in the trash (dumpster) with permission from the waste company, but there are some haulers and/or disposal companies that may not accept them. If you don't recycle these materials, be sure to include them in your monthly hazardous waste calculations. The use of energy efficient lamps like fluorescent tubes and CFLs are recommended. CFLs use the same basic technology as linear fluorescent lamps, but are folded or spiralled in order to more approximate the physical volume of an incandescent bulb.*	☐ N/A	☐ Yes (Out of Compliance)	☐ No
4.81.	Are fluorescent tubes and/or lamps crushed at your facility without an approved air permit issued by the DEQ, Air Quality Division? *An air permit is required to operate a lamp crusher and there are additional waste management requirements. Discuss your operations with the Air Quality Division and the Waste & Hazardous Materials Division district office to ensure the environment and workers are protected.*	☐ N/A	☐ Yes (Out of Compliance)	☐ No
4.82.	Are used lights being handled as universal waste and stored for recycling according to <u>all</u> of the following requirements? ☐ Stored not over one year after generation. ☐ Records are kept that show how long they have been stored using a method that clearly demonstrates how long they have been accumulated. ☐ Labeled, or the container holding the bulbs, is labeled with the following: "*universal waste electric lamps,*" "*waste electric lamps,*" or "*used electric lamps.*" ☐ Waste is stored in a way that prevents spills or releases. Containers are kept closed, in good condition, and are compatible with the type of waste stored in the containers. ☐ No more than 11,000 pounds of all universal wastes are accumulated at any one time. *Many places use the shipping cartons that the bulbs come in to store them for recycling. Recyclers can be found in the Recycled Materials Market Directory under the Glass category.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Light Bulbs				
4.83.	If used lights are being handled as hazardous waste, or residue from broken tubes and lamps is hazardous waste, did you include this amount in calculating your generator status? *Bulbs with TCLP test results of 0.2mg/L or more of mercury would have D009 hazardous waste code on the manifest and those with 5.0mg/L or more of lead would have D008 hazardous waste code. Look at the MSDS to see if it indicates if your bulbs are regulated as hazardous waste.* *The Department of Community Health has guidance on how to clean up CFLs that have broken indoors at **www.michigan.gov/mercury.*** *If the amount of hazardous waste bulbs or cleanup residue changes your generator status from a CESQG, you can not put the hazardous waste in the trash.*	☐ N/A	☐ Yes (Out of Compliance)	☐ No

Mercury Switches and Devices, and Electronic Office Equipment

Facilities are encouraged to handle these items as universal waste or they can handle them as hazardous waste. It is also recommended that mercury free or devices with less mercury be used whenever possible. For example, replace switches containing mercury with ball-bearing switches that do not contain mercury.

GM hood lighting switch

Business Tip

CO2 Saver is a lightweight program that manages your computer's power usage when it's idle, saving energy and decreasing the demand on your power utility. The less electricity produced, the fewer harmful emissions and greenhouse gases, such as carbon dioxide (CO2), are released into the atmosphere. Go to **http://co2saver.snap.com** to install the program.

✓ AUDIT QUESTIONS: Mercury Switches and Devices, and Electronic Office Equipment			
4.84.	Does your facility replace automotive switches and thermostats that contain mercury (e.g. used in hood and trunk lighting, anti-lock braking systems, or temperature control) and/or generate waste electronic office equipment?	☐ Yes	☐ No (Go to 4.93)
4.85.	Does your facility remove the mercury ampoule from devices or had any leak or break open? *If so, see the DEQ's Universal Waste guidance for more information about the requirements.*	☐ Yes	☐ No

✓ AUDIT QUESTIONS: Mercury Switches and Devices, and Electronic Office Equipment			
4.86.	Do you dispose of the mercury containing switches and devices and/or electronic office equipment in the trash? *Only a CESQG can put these wastes in the trash (dumpster) with permission from the waste disposal company. Some transporters and landfills may not accept them. If you are a CESQG and did receive permission to put them in the trash, be sure to include the quantity when calculating your hazardous waste generator status. However, shipping the wastes off-site to a recycler is the recommended option.* *If you are not allowed to dispose of mercury switches in the trash, then you need to manage the switches as a universal waste and have them shipped to a recycler. The quantity of waste you handle as a universal waste is not included in determining your hazardous waste generator status.*	☐ Yes	☐ No (Go to 4.88)
4.87.	Do you obtain permission from the waste disposal company to do so, and have you included this amount in calculating your hazardous waste generator status?	☐ Yes (Done. Go to 4.93)	☐ No (Out of Compliance. Go to 4.93)
4.88.	Does your facility handle the mercury containing switches and devices as universal waste? *Mercury Switch removal tips and other information can be found at* ***www.elvsolutions.org/michigan.htm.***	☐ Yes	☐ No (Go to 4.90)
4.89.	Are you doing the following for mercury switches? ☐ The device or container must be labeled "Universal Waste-Mercury *insert the device name*" or "Waste Mercury *insert the device name*" or "Used Mercury *insert the device name*" (e.g. Universal Waste-Mercury Switch) ☐ Records are kept that show how long they have been stored using a method that clearly demonstrates how long they have been accumulated. ☐ Shipping the wastes off-site within one year. ☐ Accumulating no more than 11,000 pounds of ALL universal wastes at any one time? *To find mercury recyclers, go to the "Metals" category in the Recycled Materials Market Directory. If not handled as universal waste, these must be handled as hazardous waste and included in calculating your generator status. Mercury would have D009 hazardous waste code.*	☐ Yes	☐ No (Out of Compliance)
4.90.	Does your facility handle the waste electronic office equipment as a universal waste? *It is recommended this equipment be recycled as universal waste. Many communities offer electronic collection days. Contact the local recycling coordinator at* ***www.michigan.gov/deqreswastecontacts*** *for the next collection near you, or find a computer manufacturers' take-back program. CESQGs need to check if their waste disposal company will allow it to go into the trash. Include amount in calculating your generator status if it is not recycled.*	☐ Yes	☐ No (Go to 4.92)

✓ AUDIT QUESTIONS: Mercury Switches and Devices, and Electronic Office Equipment			
4.91.	Are you doing the following for electronic office equipment? ☐ The device or container must be labeled "Universal Waste-Electronic Office Equipment" or "Waste- insert *name*" or "Used Electronic Office Equipment). ☐ Records are kept that show how long they have been stored using a method that clearly demonstrates how long they have been accumulated. ☐ Shipping the wastes off-site within one year. ☐ Accumulating no more than 11,000 pounds of ALL universal wastes at any one time? *To find electronic office equipment recyclers, go to the "Miscellaneous" category in the Recycled Materials Market Directory. If not handled as universal waste, these must be handled as hazardous waste and included in calculating your generator status.*	☐ Yes (Done. Go to 4.93)	☐ No (Out of Compliance. Done. Go to 4.93)
4.92.	If you are not handling the mercury switches and/or office electronic equipment as a universal waste, have you included that amount in determining your hazardous waste generator status, and are you managing them onsite and shipping them offsite under the applicable hazardous waste regulations?	☐ Yes	☐ No (Out of Compliance)

Miscellaneous Wastes: Abrasive Blasting Waste, Brake Waste, Windshields, and Other Solid Hazardous Waste

✓AUDIT QUESTIONS: Miscellaneous Wastes: Abrasive Blasting Waste, Brake Waste, Windshields, and Other Solid Hazardous Waste			
4.93.	Does the facility generate any of the following miscellaneous wastes: abrasive blasting waste, brake waste, windshields, or other solid hazardous waste?	☐ Yes	☐ No (Go to 4.97)
4.94.	Are you disposing these wastes in your dumpster?	☐ Yes	☐ No (Go to 4.96)
4.95.	Do you have permission from the waste disposal companies to do so, and have you included this amount in calculating your hazardous waste generator status? *As a CESQG, you may dispose of the waste in your dumpster provided that you have approval from your waste disposal company. If they do not accept, manage it as hazardous waste unless you have determined it does not meet that definition of waste. The applicable waste code will depend on the waste characteristics of the miscellaneous waste.*	☐ Yes (Done. Go to 4.97)	☐ No (Out of Compliance. Done. Go to 4.97)
4.96.	Are you managing them onsite and shipping them offsite as a hazardous waste, and are you including that amount in determining your hazardous waste generator status?	☐ Yes	☐ No (Out of Compliance)

Sorbents/Rags/Uniforms and Other Textiles

Sorbents and textiles may be hazardous waste if used with listed solvents or to clean up hazardous waste spills. They may have also been used for wiping off oily parts or clean up oil spills.

✓ AUDIT QUESTIONS: Sorbents/Rags/Uniforms and Other Textiles				
4.97.	Are rags or other sorbents like clay based products (cat litter), or "pigs" used to clean up oil and other spills?		☐ Yes	☐ No (Go to 4.102)
4.98.	Do these items meet <u>all</u> of the following conditions when placed into trash? ☐ Do not contain free liquids (e.g., liquid can't be squeezed out of them). ☐ You checked and the landfill authority accepts them. ☐ Were used for cleaning up nonhazardous liquids (e.g. oils). ☐ Were used for cleaning up hazardous waste <u>only</u> from CESQG facilities. ☐ No other wastes were intentionally added to the sorbents as a way to get rid of them. *If the sorbents or textiles contain free liquids, which are not used oil or nonhazardous antifreeze, you may assume the waste is hazardous and include that amount when calculating your hazardous waste generator status. The waste code depends on what it was used for.*		☐ Yes	☐ No (Out of Compliance)
4.99.	If you cannot put them into the trash, are you managing them onsite and shipping them offsite as a hazardous waste?	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.100.	If rags, uniforms, and other textiles are being laundered for reuse, are the following requirements being met? ☐ Rags and storage containers do not contain free liquids (e.g. liquid can't be squeezed out of items and you don't see liquid in the container). ☐ Waste was not intentionally added to the rags after their use. *Let your cleaning company know what chemicals you use so they can determine the best way to clean them and so they can characterize their own waste. These materials being cleaned for reuse are not included when calculating your hazardous waste generator status.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.101.	If sorbents or textiles are combustible because of what they were used with (e.g. oils, grease, paints, or solvents), are they put in metal cans with a lid immediately after use, labeled as combustible material, and properly disposed of at least once daily at the end of the day or end of each shift? *This is a MIOSHA requirement in the "Automotive Service Operations" standard and "Flammable and Combustible Liquids" standard. Contact the MIOSHA Consultation Education and Training Division at (517) 322-1809 for more information.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)

Used Oil

The definition of **used oil in the air, hazardous waste, and liquid industrial waste regulations** is any oil which has been refined from crude oil, or any synthetic oil, which has been used and as a result of use, is contaminated with physical or chemical impurities. Examples of used oil under these regulations include:

- Used motor oil
- Used hydraulic oil
- Used transmission and brake fluids
- Spent synthetic cutting and machine oils
- Spent quench oils
- Spent gear oils
- CFC-contaminated oils from air-conditioning and refrigeration units
- Oil-water mixtures if sufficient oil exists for legitimate recycling and oil does not arise from "de minimis" sources. De minimis means small spills, leaks, or other drippings from pumps, machinery, pipes, and other similar equipment during normal operations.
- Oil drippings from metal shavings from turning and drawing operations, etc.

Used oil under the hazardous waste regulations does not include petroleum-based products that are not used as lubricating agents or in other protective applications. It does not include fuels (gasoline, diesel, and fuel oils), mineral spirits, animal fats and vegetable oils, along with test and calibration fluids. *Please read the related DEQ publications for more specific information on different used oil and filters management situations and for help in determining if your used oil would be considered hazardous waste. Go to* ***www.deq.state.mi.us/pubcenter****, enter "used oil" and select "Search."*

✓ **AUDIT QUESTIONS: Used Oil**			
4.102. Does your facility generate used oil?		☐ Yes	☐ No (Go to 4.111)
4.103. Is used oil disposed of in a septic tank, dumpster, storm drain, on the ground, in the water, at a landfill, or by open burning? *This is illegal.*		☐ Yes (Out of Compliance)	☐ No
4.104. Do you apply used oil to control weeds or pests, or to roads for dust control? *This is illegal.*		☐ Yes (Out of Compliance)	☐ No
4.105. Do you mix hazardous waste or other wastes with your used oil? *A CESQG must check with the used oil recycler on what wastes can be added to used oil. Beware of adding wastes that can make oil recycling more difficult and cost you a lot more for disposal. When shipping used oil off-site, the waste code will depend on what type of used oil you have. Used motor oil has the waste code of 017L, other oils 021L, and water soluble oils 019L. If the used oil was mixed with hazardous waste, it may also have hazardous waste codes.*		☐ Yes	☐ No
4.106. If you accept used oil from the public, have you notified the DEQ, Waste & Hazardous Materials Division using the form EQP 5150 as a "Used Oil Collection Center or Aggregation Point" and do you meet recommended practices as identified in the guidance for "*Used Oil Collection Centers and Aggregation Points*?"	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.107. Are all containers or storage tanks and piping labeled with the words "Used Oil?" *These words can be put on with a label, stencil, painted on, or other method as long as it is readable. Some used oil recyclers will provide a labeled storage container if you use their services.*		☐ Yes	☐ No (Out of Compliance)
4.108. Do you have regular inspections of oil storage to look for releases? *This is required when you have a single aboveground storage tank of 660 gallons or larger, or more than 1,320 gallons aboveground storage capacity of all containers for all oils including petroleum products e.g. gasoline, diesel fuel, etc. It is recommended for all other oil storage.*		☐ Yes	☐ No

✓ AUDIT QUESTIONS: Used Oil			
4.109. If you have more than 1,320 gallons aboveground storage capacity for all new and used oils, including other petroleum products, diesel and other fuels, do you have secondary containment? *You do not need to include containers less than 55 gallons in size when determining this storage capacity. This containment is required under the federal Spill Prevention Control and Countermeasure (SPCC) regulations. See the U.S. EPA spill response information at **www.epa.gov/emergencies/content/spcc/index.htm**. Containment is recommended for all other storage.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.110. Do you meet any local storage time limits for how long you keep oil on-site? *Some local ordinances can restrict how long a company may store used oil on-site. The state waste regulations do not include a time limit.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)

Used Oil Filters

Please read the DEQ publication entitled "Used Oil Filter Requirements.

✓ AUDIT QUESTIONS: Used Oil Filters		
4.111. Does your facility generate used oil filters?	☐ Yes	☐ No (Go to 4.115)
4.112. Does your facility prepare used oil filters for recycling or disposal by: • Puncturing the filter anti-drain back valve or the filter dome end, or • Hot-draining the filter for a minimum of 12 hours to remove the oil? Include the collected oil from the filters with your other used oil.	☐ Yes	☐ No (Out of Compliance)
4.113. Do you send all of your drained used oil filters to salvage yards or other metal recyclers for recycling? *Recycling of filters is encouraged but there are some salvage yards that do not accept used oil filters. The amount of recycled filters do not need to be included when calculating your generator status. Recyclers can be found in the Recycled Materials Market Directory at **www.michigan.gov/deqrmmd**.*	☐ Yes (Done. Go to 4.115)	☐ No
4.114. Are all used oil filters drained properly before they are put in the dumpster for disposal and do you have the disposal company's approval to put in the trash? *A CESQG can put properly drained oil filters, including terne plated, in the trash (dumpster) with permission from the waste disposal company. If the filters are not recycled, you need to include the amount of used terne plated filters when calculating your hazardous waste generator status. Terne plated filters are coated with an alloy of lead and tin, which makes them a D008 hazardous waste. The manufacturer, parts store, or other sources have information on whether the filters are terne or non-terne plated.*	☐ Yes	☐ No (Out of Compliance)

Burning Used Oil

Please read the DEQ publication entitled "*Burning Used Oil*" for additional information and requirements. Please be aware that more violations are being identified when companies want to get used oil to burn in their own space heaters due to higher fuel costs. Problems seen include the following:

- Facility burning the oil does not obtain an air permit.
- Facility operating a collection center or aggregation point to collect the oil does not notify DEQ.

- Facility burning the oil picks up oil from another company without being a permitted and registered liquid industrial waste transporter.
- The company providing the used oil (e.g. the company generating the oil) does not meet the used oil marketer requirements.
- Companies hauling the oil do not meet the used oil transportation and record keeping requirements.

✓ AUDIT QUESTIONS: Burning Used Oil				
4.115.	If your facility provides used oil to someone else so they can burn it in their burner, are you complying with the requirements associated with being a used oil marker? *Discuss with your DEQ, Waste & Hazardous Materials Division district office (see Appendix A) if you want to provide used oil to another facility with a waste oil burner.*	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.116.	Do you burn used oil in a burner or boiler at your facility?		☐ Yes	☐ No (Go to Step 4)
4.117.	Are you burning <u>only used oil generated onsite</u> from your facility activities (e.g., oil changes) for space heating, service water heating, or indirect heating? *You cannot burn other wastes with your waste oil without an air permit.*		☐ Yes	☐ No (Go to 4.119)
4.118.	Is your waste oil burner rated 500,000 Btu/hr or less? *If your burner is rated higher than this, you will need an air permit.*		☐ Yes (Go to 4.120)	☐ No
4.119.	Do you have an approved air permit issued by the DEQ, Air Quality Division for the oil burner and are you meeting those permit requirements? Some of the requirements may include sending samples of the used oil to a laboratory and having them analyzed for various constituents. *If you need an air permit application for a waste oil burner, please contact the Environmental Assistance Program at (800) 662-9278.*		☐ Yes	☐ No (Out of Compliance)
4.120.	Do you have records showing how much used oil is being burned on-site?		☐ Yes	☐ No (Out of Compliance)
4.121.	Are you complying with all of the local fire and building code requirements? *Check with your fire chief and building inspector for local requirements. Some insurance companies also have requirements.*		☐ Yes	☐ No (Out of Compliance)

Step 4. - Shipping Hazardous, Universal, and Nonhazardous Liquid Wastes Offsite

In this section, the term “designated facility” will frequently appear. This term refers to the facility that accepts your hazardous and liquid industrial wastes. It could be Treatment, Storage, Disposal Facility (also known as a TSDF) a recycler, a household hazardous waste program, a fuel blender, or other disposal facility.

Because transporter and designated facility services, costs, and qualifications are highly varied, you should contact and interview several facilities to obtain price estimates before making a selection. You might also want to tour the designated facility yourself to see its operations. Remember, as the generator of the waste, you are ultimately responsible for how your waste is transported and disposed of, so it is wise to choose a company on more than price.

Check what services the transporters and designated facilities offer. Transporters may be independent companies or may be affiliated with a designated facility. Many will assist you by providing and reviewing the Uniform Hazardous Waste Manifest for correct and complete information. The Uniform Hazardous Waste Manifest form EPA 8700-22 is used when shipping both hazardous waste and nonhazardous liquid waste in Michigan. They may provide information on designated facility options and costs and provide containers for the safe and timely transport of your wastes. Listings of permitted and registered transporters are available at the DEQ's "Hazardous & Liquid Industrial Waste Transportation" Web page.

You want to select a designated facility that can handle, treat, and dispose of, or recycle, the waste you generate. A designated facility will accept only those types of wastes allowed by its permit or license. Some facilities have their own requirements as to how they will accept waste material. For example, some companies will not accept hazardous waste in drums even though this is a common storage method. Some designated companies provide storage containers like oil tanks or totes. You can search the Waste Data System (WDS) at **www.deq.state.mi.us/wdspi** to find Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDFs) information.

Remember, if you discharge any waste to the municipal wastewater treatment plant instead of having it hauled off-site, you must obtain permission from the local authorities before discharging waste to a combined or sanitary sewer, and nonsanitary wastewater can not be discharged into a septic system. This is discussed in more detail in Part 2 of this workbook.

✓ AUDIT QUESTIONS: Shipping Wastes Offsite		
4.122. Are employees trained to fill out shipping papers, including uniform hazardous waste manifests used for hazardous waste shipments? *Although the waste regulations do not have specific training requirements for CESQGs, any employee who prepares hazardous materials for shipment, or generally any person who in the course of their employment directly affects hazardous materials transportation safety, is considered a hazmat employee and is required to have training per the U.S. DOT Hazardous Materials Regulations. Training needs to include:* ☐ *General awareness/familiarization so employees can recognize hazardous materials with the hazard communication standard as included in the U.S. DOT regulations.* ☐ *Function-specific training.* ☐ *Safety.* ☐ *Security awareness which can be tailored to the employee's responsibilities so they are aware of potential terrorist or criminal risks associated with the hazardous materials they handle .* ☐ *In-depth security training, when a security plan is required. Most mechanical repair facilities will not be subject to developing a security plan. Information about security planning is available at* ***http://hazmat.dot.gov/riskmgmt/hmt/hmt_security.htm.*** ☐ *Driver training (for each hazmat employee operating a motor vehicle).* ***Initial hazmat training is required within 90 days*** *of employment or when an employee changes responsibilities; re-training is required once* ***every 3 years****.* *You can attend U.S. DOT, association-sponsored, or other company's training seminars; purchase or go through the U.S. DOT training materials online; or hire qualified trainers/consultants to provide training at your site. Find U.S. DOT training information at* ***www.phmsa.dot.gov/training.*** *See training modules for the Hazardous Materials Transportation Training and General Awareness Training. Refer to the U.S. DOT at (800) 467-4922 or the Michigan State Police at (517) 336-6580, for questions on U.S. DOT training.*	☐ Yes	☐ No (Out of Compliance)

If you haul <u>all</u> of your own wastes to a designated facility, skip to 4.130			
4.123. Does each shipment of hazardous waste or nonhazardous liquid waste have a uniform hazardous manifest? *Usually the waste transporter or designated facility will provide the manifest and help you fill it out. Instructions and ordering information from U.S. EPA approved printers are available at **www.michigan.gov/deqwaste**. The U.S. EPA "Uniform Hazardous Waste Manifest" (Form 8700-22) must be used for both hazardous and nonhazardous liquid waste shipments.*		☐ Yes	☐ No
4.124. Is the correct site identification number and the waste properly listed on the manifest form, and is the quantity shipped entered on the manifest form as identified in the manifest form instructions and U.S. DOT regulations? *Refer questions on completing the U.S. DOT shipping descriptions to the Michigan State Police at (517) 336-6580 or U.S. DOT at (800) 467-4922. Also see the training resources in 4.122.*		☐ Yes	☐ No (Out of Compliance)
4.125. Has a copy of each manifest been submitted to the DEQ's Waste & Hazardous Materials Division by the 10th of the month following the shipment? *See page 4-38 for requirements on submitting manifest copies to the DEQ.*		☐ Yes	☐ No (Out of Compliance)
4.126. Did you get a copy back from the designated facility within 45 days from shipment? *See page 4-39 for requirements to submit an exception report if you did not receive the manifest within the required time limit.*		☐ Yes	☐ No (Out of Compliance)
4.127. Are copies of the manifest that are signed by the generator, hauler, and designated facility kept on file for at least three years from date of shipment, or longer if there is an unresolved enforcement action? *Many companies keep all their manifests to show that they have properly handled their waste, which can be useful when they sell the property.*		☐ Yes	☐ No (Out of Compliance)
4.128. If the transporter used a consolidated manifest when picking up liquid wastes, did you get a receipt from the transporter that contains the following information: • Name and address of the shop and the facility where the waste is being taken. • Amount and type of waste shipped off-site. • Date of pick up. • The consolidated manifest number being used by the transporter. • Driver's signature. • Transporter's company name.	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.129. Do you haul <u>any</u> of your own nonhazardous liquid waste or hazardous waste to a designated facility?		☐ Yes (Go to 4.130)	☐ No (Done. Go to page 4-38)

✓ AUDIT QUESTIONS: Hauling 55 Gallons or Less of Your Own Hazardous and Nonhazardous Liquid Wastes			
4.130. Do you haul your own waste (used oil, hazardous waste, nonhazardous liquid waste) in quantities of 55 gallons or less to a designated facility that has notified the Waste & Hazardous Materials Division they are accepting that waste? *To reduce disposal transportation costs, one option is for a CESQG to take their waste to a local household hazardous waste collection (HHWC) program if that program will accept it, or you can make arrangements directly with their waste vendor to bring your waste on the day of pickup. HHWC programs usually charge a reasonable fee to cover their expenses. List of local HHWC coordinators is at **www.michigan.gov/deqreswastecontacts**. The waste could be hauled directly to a designated facility's site if that is acceptable to the facility.*	☐ N/A (Go to 4.134)	☐ Yes	☐ No (Out of Compliance)
4.131. For waste shipments of 55 gallons or less, do you have records that go with each shipment that includes all of the following? • Your business name and address • Description of the waste • How much waste is in the shipment • Where you are taking the wastes		☐ Yes	☐ No (Out of Compliance)
4.132. Did you obtain a signature from the designated facility acknowledging they accepted the waste and provide them with a copy of the record and do you keep copies of the shipment records for at least three years?		☐ Yes	☐ No (Out of Compliance)
4.133. Did you confirm with your insurance company that your shop has adequate coverage if the shipping vehicle is involved in an accident?		☐ Yes	☐ No (Out of Compliance)

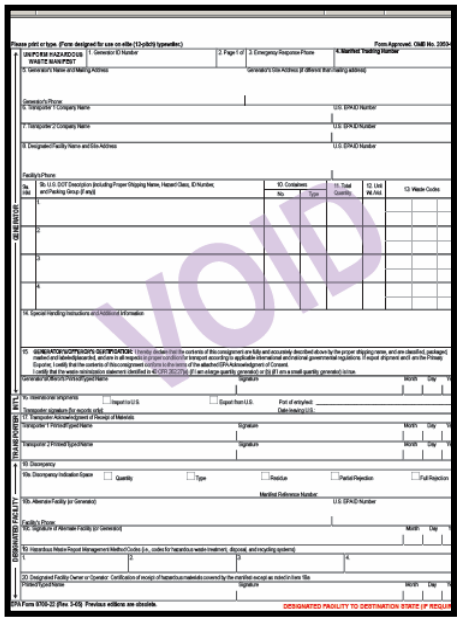
✓ AUDIT QUESTIONS: Hauling Over 55 Gallons of Your Own Hazardous and Nonhazardous Liquid Wastes		
4.134. Do you haul more than 55 gallons of your own facility's hazardous or nonhazardous liquid waste?	☐ Yes	☐ No (Done. Go to page 4-38)
4.135. Have you notified the DEQ's Waste & Hazardous Materials Division using form EQP 5150 about hauling your own nonhazardous liquid waste? *In Box X, E. Liquid Industrial Waste also select 2. Transporting own waste*	☐ Yes	☐ No (Out of Compliance)
4.136. Did you use uniform hazardous waste manifests and did you meet the manifest requirements in Step 4A?	☐ Yes	☐ No (Out of Compliance)
4.137. Did you obtain a copy of form MCS-90 (endorsement for motor carrier policies of insurance for public liability under Section 29 or 30 of the Motor Carrier Act of 1980) from your insurance company and submit the form to: DEQ WHMD Attn: Transportation Program Technician Southeast Michigan District Office 27700 Donald Court Warren, MI 48092-2793	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Hauling Over 55 Gallons of Your Own Hazardous and Nonhazardous Liquid Wastes			
4.138. If your vehicle(s) is under 10,000 pounds gross vehicle weight, do you have fleet insurance coverage of at least $300,000?	☐ N/A	☐ Yes	☐ No (Out of Compliance)
4.139. If your vehicle(s) are 10,000 pounds gross vehicle weight or more, do you have fleet insurance coverage of at least $750,000?	☐ N/A	☐ Yes	☐ No (Out of Compliance)

Manifest Submittal and Recordkeeping Requirements

1. Complete the manifest forms. Instructions are provided at **www.michigan.gov/deqwaste**. Make sure the correct site identification number is used and you correctly fill out all the applicable boxes. When you sign the manifest, you are certifying all the information is correct.
2. Your transporter will sign the manifest forms and provide you with a Generator's Initial Copy. Make sure you can read all the information on your copy before the transporter leaves since the manifest is a multi-page form.
3. You must submit a legible copy to the WHMD **within 10 days** after the end of the month in which you shipped the waste.

   Some transporters hauling waste to Michigan-designated facilities will also leave the top page labeled "Designated Facility to Destination State (If required)." If they leave this top page, line out "Designated Facility to Destination State" and write in Generator Copy and submit that copy, or a legible photocopy of the "Generator's Initial Copy," to:



Uniform Hazardous Waste Manifest (EPA Form 8700-22)

DEQ WASTE AND HAZARDOUS MATERIALS DIVISION
MANIFEST UNIT
PO Box 30038
LANSING MI 48909-7538

If your waste company offers to send the copies to DEQ as a service, confirm copies of manifests have been sent because it is the **generator's (i.e., your) responsibility** to make sure the copy has been submitted. You can confirm manifests for hazardous waste shipments were submitted by checking your company's manifest information in the Waste Data System at **www.deq.state.mi.us/wdspi** by clicking on "manifests" in the left column, and confirm with the waste company that they submitted the manifest copies for nonhazardous liquid waste shipments. At this time, manifests that only list used oil and other nonhazardous liquids are not in the WDS database.

4. The designated facility will send you a copy of the manifest form with the transporter and designated facility signature within 35 days. Keep this copy at least 3 years. Most companies will keep it longer to show that they have properly handled their waste which can be useful when they sell the property. When you receive the signed copy from the designated facility, you can recycle the Generator's Initial Copy you had received from the transporter at the time of waste pickup. The designated facility will also send a copy of the manifest to the DEQ.

5. If you have not received a copy of the manifest from your designated facility within 35 days of shipment, contact the transporter and designated facility to determine the status of your shipment. You will need to send an exception report, which is a copy of the manifest with a letter explaining what contacts you have had with the transporter and designated facility, and any other information you have regarding the shipment, if you still have not received the manifest copy within:

    - 45 days after a nonhazardous liquid waste shipment
    - 45 days after a CESQG hazardous waste shipment

    Send your exception report to: MDEQ WHMD
    MANIFEST UNIT
    PO BOX 30038
    LANSING MI 48909-7538

If you have any questions, contact the Environmental Assistance Program at (800) 662-9278 or the Waste and Hazardous Materials Division district office.

PART 5 – DRINKING WATER

Learn how certain well conditions or practices can pose risk to the water supply by reviewing the "Source Water Protection Guide for Noncommunity Water Supplies."

Water Well Requirements

✓ AUDIT QUESTIONS: Water Well Requirements			
5.1.	Do you have a water well that supplies drinking water to employees or customers at your facility? *You are classified as a public water supply if your business has a well used for drinking, hand washing, or sanitation.*	☐ Yes	☐ No (Done. Go to Part 6.)

Water Supply Classification

To identify your Community Public Water Supply Classification, check the box that applies:

- ☐ Type III: You are considered a Type III public water supply if less than 25 persons are served on an average daily basis. Answer Questions 5.2, 5.3, and 5.8 - 5.10.
- ☐ Type II, Transient: You are considered a Type II Transient water supply if 25 or more persons are served on an average daily basis. Answer Questions 5.4, 5.5 and 5.8 – 5.10
- ☐ Type II, Nontransient: You are considered a Type II Nontransient water supply if the **same** 25 or more persons are served on an average daily basis, at least 6 months per year. (In other words, you have 25 or more employees). Answer Questions 5.6 – 5.10.

✓ AUDIT QUESTIONS: Type III Water System Owners			
5.2.	Do you sample annually for fecal coliform and nitrate/nitrite to assure that surface water sources are not contaminating the well (such as from a break in the well casing)? *You do not have to routinely submit water samples unless otherwise directed by the Local Health Department based upon site specific conditions.*	☐ Yes	☐ No (Recommended)
5.3.	Do you have a permit from your local health department and do you know your Water Supply Serial Number (WSSN)? *While the Local Health Department regulates these water supplies, the state of Michigan coordinates the distribution of funds to the Local Health Departments. An annual fee is assessed by October 1st and is due by November 30th each year. The owner of the water supply may also be invoiced for fees associated with laboratory testing of required water samples.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Type II Transient Water System Owners			
5.4.	Do you control chemical, physical, biological, or radiological characteristics of your water supply (i.e., do you have treatment systems) for the protection of public health and, if so, do you have a Certified Operator? *If you need assistance with this determination, contact your local health department or the DEQ's Environmental Science and Services Division, Water and Wastewater Operator Training Program, (517) 241-7199 or go to **www.michigan.gov/deqoperatortraining**.*	☐ Yes	☐ No (Recommended)
5.5.	Do you routinely sample for fecal coliform and nitrate/nitrite at the frequency required by your local health department? *Type II, Transient water systems are required to routinely sample for fecal coliform and nitrate/nitrate at a frequency determined by the Local Health Department. Other sampling requirements could also be required by the local health department based upon site specific conditions.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Type II Nontransient Water System Owners			
5.6.	Do you have a Certified Operator in charge of the treatment and distribution? *Type II, Nontransient water systems are required to have a Certified Operator. The certification by the DEQ is based on the operator's qualifications, experience, a written examination, and, in some cases, a laboratory examination. If you need assistance, contact the DEQ's, Environmental Science and Services Division, Water and Wastewater Operator Training Program, (517) 241-7199 Go to **www.michigan.gov/deqoperatortraining**.*	☐ Yes	☐ No (Out of Compliance)
5.7.	Do you sample for coliform bacteria, nitrates/nitrites, metals, cyanide, volatile organic compounds, synthetic organic compounds, lead and copper, along with any other contaminant at the frequency required by your local health department? *Type II, Nontransient noncommunity water systems have sampling requirements.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Requirements for All Water System Owners			
5.8.	Do you have a permit from your Local Health Department and do you know your Water Supply Serial Number (WSSN)? *While the local health department regulates these water supplies, the state of Michigan coordinates the distribution of funds to the Local Health Departments. An annual fee is assessed by October 1 and is due by November 30 each year. The owner of the water supply may also be invoiced for fees associated with laboratory testing of required water samples.*	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Requirements for All Water System Owners			
5.9.	Do you have a comprehensive control program for the elimination and prevention of cross connections that includes a time schedule for inspection and re-inspection for possible connections? This periodic inspection is to ascertain whether or not safe air gaps or required protective devices are in place and in working order. *A cross connection is a connection or arrangement of piping, fixtures, fittings, or equipment through which a backflow into the potable water supply may occur. Examples of cross connections include submerged inlets, such as unapproved ball cock assemblies in toilet tanks; unprotected connections between the water supply and a boiler containing additives; or piping submerged in a tank or vessel which may contain a contaminant, such as a wash basin or mixing tank. You can learn more about cross connections, along with the methods and equipment used to eliminate them by taking DEQ's annual Cross Connection Seminar offered through the Drinking Water Operator Training and Certification program. Go to* ***www.michigan.gov/deqoperatortraining***	☐ Yes	☐ No (Out of Compliance)
5.10.	Are you following any of the best management practices recommended in Table 5.1?	☐ Yes	☐ No

TABLE 5.1: BEST MANAGEMENT PRACTICES - *NOT REQUIRED, BUT RECOMMENDED*

- ☐ Make sure your facility's well casing and cap are visible and protected from accidents, such as being hit by cars, snowplows, and lawnmowers. This protection is necessary to prevent breaking of the well casting that extends underground. If the well casing is broken or unsealed, surface water could enter the water supply and contaminate the well.
- ☐ Perform routine sampling for coliform bacteria and nitrates/nitrates to confirm the integrity of the well casing and seal.
- ☐ Ensure that the well casing extends a foot above grade to prevent surface water from entering the well and the ground should slope away from the well casing in all directions.
- ☐ Consider the need for cleanliness in the area near the well casing when applying or storing herbicides, pesticides, or other hazardous materials to prevent contamination of the water aquifer.
- ☐ Have your well inspected by a registered well driller or pump installer every 10 years.

PART 6 – STORAGE TANK MANAGEMENT

Automotive mechanical repair facilities that follow the rules and regulations governing the storage of liquids including used oil, petroleum-based products, and chemicals in tanks are saving money by preventing spills, overfills, and other mishaps. Your employees should have some basic knowledge of how to operate and maintain the tanks. Your employees should also have a good understanding of safe chemical storage, such as which chemicals must be kept separate.

Secondary containment is a structural means to prevent hazardous materials from being released to groundwater, surface water, and human exposure. Not all of the materials used by repair facilities are subject to state and federal secondary containment regulations; however, secondary containment is highly recommended for all materials that may pose a risk to human health and the environment, if released. Also, some local ordinances and insurance companies may require containment or other storage requirements. Keep in mind, it is usually cheaper to install and utilize containment structures than to clean up releases that contaminate groundwater, surface water, and soils.

For aboveground storage tanks (ASTs), secondary containment must be constructed out of non-combustible material, be liquid tight, and compatible with the product stored in the tank. The containment must be able to hold 100 % of the volume of the largest tank and the displacement volume of the second largest tank within the structure.

Secondary containment is required for all underground storage tanks (UST) in a wellhead protection zone, or tanks installed after 1998 and holding a hazardous substance like xylene. All UST installed after June 27, 2008, containing hazardous substances, petroleum products, or flammable and combustible liquids are required to have secondary containment. Existing USTs will be 'grandfathered' in and will not have to meet the requirement until the USTs are replaced.

The UST secondary containment requirement is most often met by the installation of a double walled tank with the space between the inner and outer tank being able to contain the volume of the inner tank. The containment must be made of material that is compatible with the substance stored in the tank.

Please read the related DEQ publications for more specific information on storage tanks and barrels. The following documents can be found in the DEQ Publication database located at www.michigan.gov/deq:

- "Underground Storage Tank Program Overview"
- "Guide to Understanding Secondary Containment Requirements in Michigan"
- "Don't Wait Until 2008"

✓ AUDIT QUESTIONS: Storage Tanks			
6.1.	Do you store fuel, solvents, or other materials with a flash point below 200°F in an aboveground storage tank (AST)? *Used oil typically has a flashpoint greater than 200°F. However, if waste solvents or other contaminants are added to the used oil, it could have a flashpoint less than 200°F.*	☐ Yes	☐ No (Go to 6.6)
6.2.	Is the holding capacity of the AST 660 gallons or more?	☐ Yes	☐ No (Go to 6.6)
6.3.	Is the AST equipped with secondary containment?	☐ Yes	☐ No (Out of Compliance)
6.4.	Does the AST have a storage capacity of more than 1,100 gallons?	☐ Yes	☐ No (Go to 6.6)
6.5.	Are you complying with the DEQ's Storage Tank Program requirements, which include submittal of an installation plan for review, fees, and certification for operation? *Contact the DEQ's Environmental Assistance Program at (800) 662-9278.*	☐ Yes	☐ No (Out of Compliance)
6.6.	Do you store flammable and combustible liquids with a flash point below 200°F in an underground storage tank (UST)?	☐ Yes	☐ No (Go to 6.11)
6.7.	Does the UST have a storage capacity of 660 gallons or more?	☐ Yes	☐ No (Go to 6.11)
6.8.	Is the UST equipped with secondary containment?	☐ Yes	☐ No (Out of Compliance)
6.9.	Does the UST have a storage capacity of more than 1,100 gallons?	☐ Yes	☐ No (Go to 6.11)
6.10.	Are you complying with the DEQ's Storage Tank Program requirements, which include submittal of an installation plan for review, fees, and certification for operation? *Contact the DEQ's Environmental Assistance Program at (800) 662-9278.*	☐ Yes	☐ No (Out of Compliance)
6.11.	Do you store petroleum products, used oil, or hazardous chemicals for business or commercial use in an UST with a holding capacity of 110 gallons or greater?	☐ Yes	☐ No (Go to 6.15)
6.12.	Are you complying with the DEQ's Storage Tank Program requirements which includes submittal of an installation plan for review, fees, and certification for operation? *Contact the DEQ's Environmental Assistance Program at (800) 662-9278.*	☐ Yes	☐ No (Out of Compliance)
6.13.	Is the holding capacity of the UST 660 gallons or more?	☐ Yes	☐ No (Go to 6.15)
6.14.	Is the UST equipped with secondary containment?	☐ Yes	☐ No (Out of Compliance)

✓ AUDIT QUESTIONS: Storage Tanks			
6.15.	Do you store liquid petroleum gas (LPG) in an aboveground storage tank (AST) with a water capacity of more than 2,000 gallons, or two or more tanks with an aggregate water capacity of more than 4,000 gallons?	☐ Yes	☐ No (Go to 6.17)
6.16.	Are you complying with the DEQ's Storage Tank Program requirements, which include submittal of an installation plan for review, fees, and certification for operation? *Contact the DEQ's Environmental Assistance Program at (800) 662-9278.*	☐ Yes	☐ No (Out of Compliance)
6.17.	Do you store LPG in an underground storage tank (UST) with a water capacity of more than 2,000 gallons, or two or more tanks with a combined water capacity of more than 4,000 gallons?	☐ Yes	☐ No (Done. Go to Part 7.)
6.18.	Are you complying with the DEQ's Storage Tank Program requirements, which include submittal of an installation plan for review, fees, and certification for operation? *Contact the DEQ's Environmental Assistance Program at (800) 662-9278.*	☐ Yes	☐ No (Out of Compliance)

PART 7 – SPILL REPORTING AND RESPONSE

Reporting Spills

Different state and federal regulations require release reporting when certain conditions occur. A spill may be required to be reported if the contaminants enter a drain connected to a combined, sanitary, or storm sewer; or enters surface water such as a drain, river, or lake; or was a release from a regulated storage tank, or if the amount spilled exceeds a listed reportable quantity (RQ).

If a release occurs and you are unsure if it is reportable, it is recommended that you notify all of the following within fifteen minutes after the release:

1. **911**
2. **(800) 292-4706** DEQ Pollution Emergency Alert System (PEAS)
3. **(800) 424-8802** National Response Center (NRC)

Any release to a water body or from a regulated storage tank must be reported!

You can then respond to the release, reassess the situation, and make additional notifications as required.

It is advisable that you maintain a listing of important numbers near your phones including PEAS and the NRC and have your Material Safety Data Sheets (MSDS) for your products accessible. Appendix G is an "Important Emergency Numbers" poster that you can complete and post at various locations within your facility or call the Environmental Assistance Center at (800) 662-9278 to request copies of a self-sticking emergency poster that can be used.

It is recommended that you document the release using the DEQ "Spill or Release Report" (see Appendix F). Include what you did to respond to the release.

✓ AUDIT QUESTION: Spill Reporting			
7.1. If you had a spill, did you report it as required?	☐ N/A	☐ Yes	☐ No (Out of Compliance)

Responding to Small Spills

Materials used to clean up oil spills at automotive mechanical repair facilities are usually not hazardous waste and can be put in the trash if they meet specific conditions. Some absorbent products are reusable. To find recyclers, go to **www.michigan.gov/deqrmmd** search the "Oils and Solvents" category in the Recycled Materials Market Directory for "absorbent". It may be cost effective to have rags laundered for reuse. To find suppliers of absorbents containing recycled materials, go to **www.epa.gov/cpg/products/sorbents.htm.**

Do not wash, sweep, or in any way direct a spill outside to the ground or down a drain. Contain and collect the spilled material and dispose of it properly.

Spill Prevention

✓ AUDIT QUESTION: Spill Prevention

7.2. Are you doing all of the following?

☐ Yes	☐ No (Out of Compliance)

- ☐ Plan ahead: Identify an area between the shop's storm sewers and the water body (drainage ditch, river, lake or stream) it enters, where a spill could be contained before entering that water body.
- ☐ Maintain spill response materials (i.e., absorbent pads, socks and/or pillows, goggles, gloves, disposable bags, Oil Dry) necessary to contain a spill on a moment's notice. (A spill stopped before migrating to surface water can save a lot of money in clean-up costs).
- ☐ Train employees on what to do during an emergency including:
  - ➢ How to respond to serious spills or other accidents.
  - ➢ How to respond to communication and alarm systems.
  - ➢ How to contact emergency responders (fire, police, and ambulance).
  - ➢ Where to find emergency equipment.
  - ➢ How to use evacuation plans and routes.
  - ➢ How to extinguish a fire and when to attempt this.
  - ➢ How to contain and clean up a spill.
  - ➢ Who to inform if an emergency occurs.
  - ➢ How to follow your shop's emergency plan.

*The MIOSHA Hazard Communication/ Employee Right-to-Know Standard requires you to develop a program for employees exposed to hazardous chemicals. For more information about this and other MIOSHA standards your shop must comply with, see Appendix C and visit the MIOSHA Standards Section Web site at **www.michigan.gov/mioshastandards**.*

Spill Training

✓ AUDIT QUESTIONS: Spill Training		
7.3. Have employees been trained on how to properly manage waste and handle spills? Do they know how to: ☐ Stop the leak? ☐ Contain the spilled material? ☐ Clean up the spilled material using cat litter, shop rags, or other absorbent? ☐ Repair or replace the storage container as necessary? ☐ Report the release when required (see page 7-1)? *The Department of Labor and Economic Growth MIOSHA also oversees worker health and safety training regulations. Contact their Consultation, Education and Training Division at (517) 322-1809.*	☐ Yes	☐ No (Out of Compliance)
7.4. Are you following the best management practices identified in Table 7-1 below?	☐ Yes	☐ No

Best Management Practices

TABLE 7.1 BEST MANAGEMENT PRACTICES — NOT REQUIRED, BUT RECOMMENDED

☐ Put one person in charge of making sure the wastes and products are correctly identified, labeled and stored. Labeling helps prevent mismanagement and protect the workers. If the contents of containers are not known, the chances of a worker being exposed to hazards or being injured are increased. An explosion could occur if wastes that are incompatible are mixed with unknown wastes in a drum.

☐ Maintain a spill control kit and equipment near the stored fluids.

☐ Use secondary containment. Containment for oils is required if a shop has over 1,320 gallons storage capacity (see Audit Question 4.109).

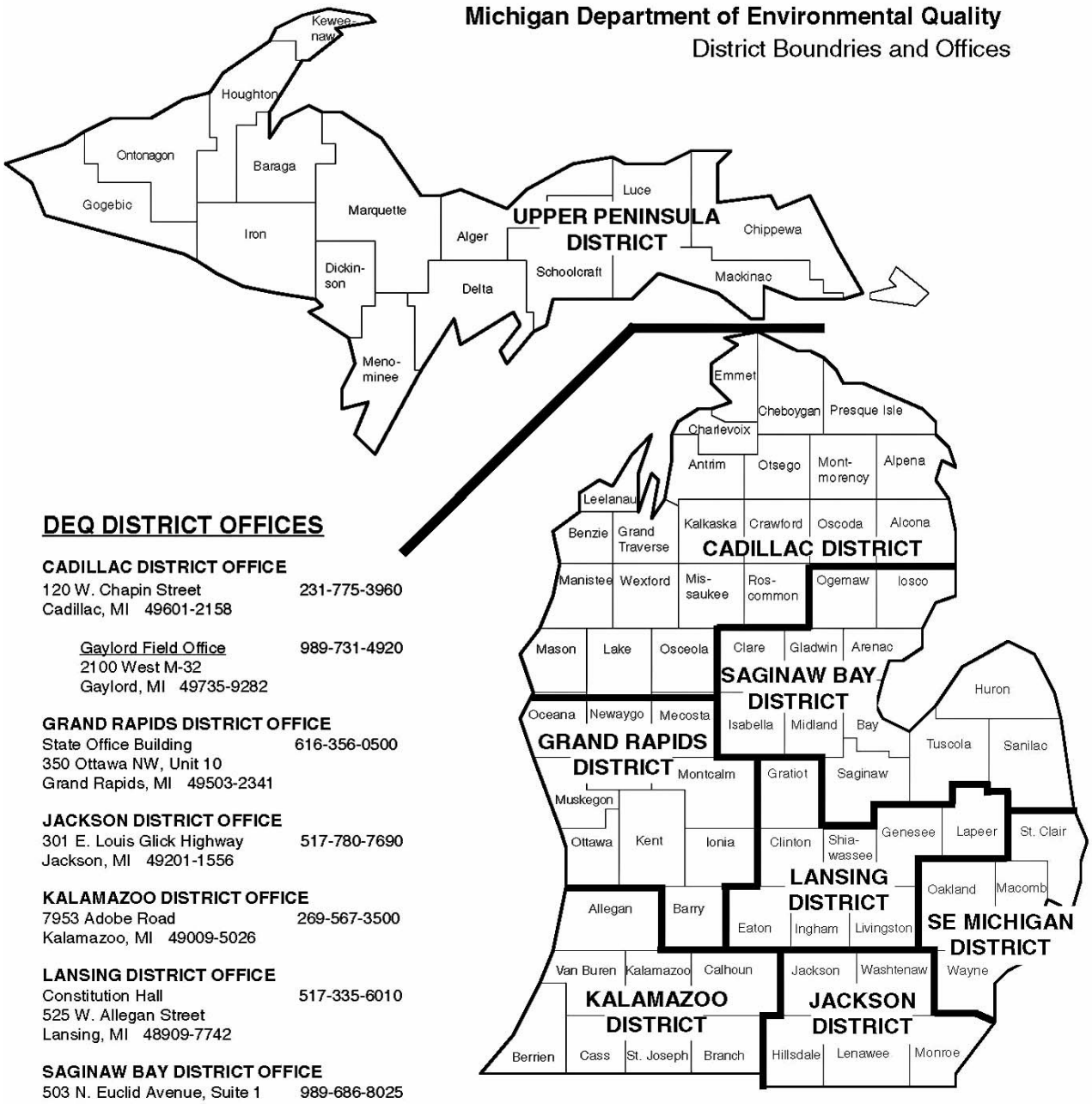
☐ Use tight fitting lids, leak-proof spigots, self closing funnels, or pumps to transfer fluids.

☐ Prevent drips and spills:

- Use drip pans or trays to collect drips and spills where fluids are transferred, under leaking cars, and under parts that have been removed.
- Drain and collect the fluids on a covered, curbed, and sealed concrete area away from any drains.

Use dedicated equipment, such as drain pans or funnels, for oil-based waste to prevent cross-contamination with chlorinated solvent wastes.

APPENDIX A – Contact Information



DEQ DISTRICT OFFICES

CADILLAC DISTRICT OFFICE
120 W. Chapin Street 231-775-3960
Cadillac, MI 49601-2158

Gaylord Field Office 989-731-4920
2100 West M-32
Gaylord, MI 49735-9282

GRAND RAPIDS DISTRICT OFFICE
State Office Building 616-356-0500
350 Ottawa NW, Unit 10
Grand Rapids, MI 49503-2341

JACKSON DISTRICT OFFICE
301 E. Louis Glick Highway 517-780-7690
Jackson, MI 49201-1556

KALAMAZOO DISTRICT OFFICE
7953 Adobe Road 269-567-3500
Kalamazoo, MI 49009-5026

LANSING DISTRICT OFFICE
Constitution Hall 517-335-6010
525 W. Allegan Street
Lansing, MI 48909-7742

SAGINAW BAY DISTRICT OFFICE
503 N. Euclid Avenue, Suite 1 989-686-8025
Bay City, MI 48706-2925

SOUTHEAST MICHIGAN DISTRICT OFFICE
27700 Donald Court 586-753-3700
Warren, MI 48092-2793

Detroit Field Office 313-456-4700
Cadillac Place
3058 West Grand Boulevard, Suite 2-300
Detroit, MI 48202-6058

UPPER PENINSULA DISTRICT OFFICE
420 5th Street 906-346-8300
Gwinn, MI 49841

ENVIRONMENTAL ASSISTANCE CENTER
(for general information):
Telephone: 800-662-9278
Fax: 517-241-0673

POLLUTION EMERGENCIES
Telephone: 800-292-4706

DEQ WEB PAGE
www.michigan.gov/deq

DEPARTMENT OF LABOR AND ECONOMIC GROWTH (DLEG)

MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MIOSHA)

MIOSHA Hotline	(800)TO-MIOSH (800) 866-4674
Fatality or Catastrophe Hotline	(800) 858-0397
General Information	(517) 322-1814
Appeals Division	(517) 322-1297
Construction Safety & Health Division	(517) 322-1856
Consultation Education and Training Division (CET)	(517) 322-1809
CET Grant Program	(517) 322-1865
Employee Discrimination Division	(248) 888-8777
Freedom of Information Section	(517) 322-1295
General Industry Safety & Health Division	(517) 322-1831
Management and Technical Services Division	(517) 322-1848
Recordkeeping	(517) 322-1848
Standards Section	(517) 322-1845

APPENDIX B - Additional Resources

Automotive Service Association of Michigan

The Automotive Service Association (ASA) of Michigan is an association of automotive service businesses dedicated to improving the state's automotive service industry and the success of its members.

The mission of the ASA is to advance excellence, professionalism, and integrity by providing education and member benefit programs, serving as a resource and advocate on issues affecting the members, and promoting a Code of Ethics. For more information call (734) 462-9250 or visit **www.asamichigan.com.**

Pollution Prevention

The first step on the road to environmental compliance is to look for opportunities to use fewer hazardous materials and to generate less waste. In other words, avoid pollution at its source. Why manage wastes when you can eliminate them?

Pollution prevention (P2) techniques can help you reduce your compliance burdens, make your work place cleaner and safer, increase your competitiveness, and save you money. Correctly practiced, P2 is not a one-time effort, but a core part of day-to-day operations and long-term planning.

What can P2 do for me?

P2 can save you money and can make it easier for you to meet most of the environmental requirements in this Workbook. P2 improvements can reduce or eliminate your hazardous waste, increase your productivity, and improve the safety of your shop.

The Environmental Science and Services Division offers a couple of programs to help jump start your pollution prevention efforts:

Retired Engineer Technical Assistance Program (RETAP)

MICHIGAN RETAP
RETIRED ENGINEER
TECHNICAL ASSISTANCE PROGRAM

Retired professionals are available through the Retired Engineer Technical Assistance Program (RETAP) to assist businesses and institutions in Michigan with pollution prevention. Each assessor has 30 - 40 years of experience with Michigan industries. Businesses of 500 employees or fewer in the state and institutions of any size are eligible. Assessments are confidential, **free of charge**, and non-regulatory.

Business Pollution Prevention Loan Program

Low-interest loans of up to $400,000 are available to small businesses of 500 employees or less to finance projects that eliminate or minimize the generation of waste through P2, or result in the identification of significant energy savings within their operations.

Michigan Business Pollution Prevention Partnership (MBP3)

Open to all businesses, associations, organizations, and agencies, MBP3 is a voluntary P2 program designed to encourage businesses to initiate or expand their P2 practices. Participants receive well-deserved public recognition for their efforts.

APPENDIX C - Health And Safety Standards

Your employees are your most valuable resources. The Michigan Occupational Safety and Health Administration (MIOSHA) governs regulations related to the health and safety of you, your employees, and your work areas. MIOSHA is administered by the Michigan Department of Labor and Economic Growth, Bureau of Safety and Regulation. The MIOSHA General Industry Health and Safety Standards are divided into parts. Within each part are rules that address various subjects. The following is a brief description, including the part number, of the MIOSHA rules that most automotive repair facilities must comply with.

Injury and Illness Record Keeping (Administrative Rules, Part 11) – Track occupational injuries and illnesses in the work place.

Automotive Service Operations (Safety, Part 72) – Practice safe maintenance and operation of equipment at facilities where vehicles are serviced, repaired, and salvaged. The Automotive Service Operation rules cover many aspects of vehicle repair: employee responsibility; personal protective equipment; lighting; machinery and equipment installation; housekeeping; ventilation and air receivers; flammables, painting, and coating; belt servicing; air conditioning; cranes and winches, hoists, and chain falls; wreckers; jacking and blocking; radiator and gas tanks; transmissions; rim wheel servicing; and automotive lifts.

Hazard Communication Program/Employee Right-To-Know (Safety, Part 92) – Educate and train employees on the dangers of the hazardous chemicals present in the shop and provide directions on how to handle them safely.

MIOSHA Posting (Adminstrative Rules, Part 13) – Display a copy of the poster "*Michigan Safety and Health Protection on the Job"* in a conspicuous location.

Personal Protective Equipment (PPE) (Safety, Part 33) – Provide PPE and training on how to use it to employees who have the potential of being exposed to a hazard that cannot be eliminated through safeguarding or engineering changes. Some PPE includes face, eye, foot, and hand protection and respirators.

HAZWOPER (Health, Part 432) – Recognize an emergency response situation and understand the appropriate action to take when one occurs.

First Aid (**Health, Part 472)** – Train an employee to render first aid if medical services (clinic, ambulance, hospital, etc.) are not readily accessible.

Sanitation (Health, Part 474) – Provide potable (approved for drinking) water supplies, vermin control, waste disposal, lavatories, and a safe environment for the consumption of food and beverages.

General Housekeeping Guidelines (Safety, Part 1) – Maintain good housekeeping which benefits everyone in your shop by creating safe and clean surroundings. Keep floors clean and clear to reduce the chance that employees will trip or fall.

Machine Guarding Requirements (Safety, Part 1 and Part 7) – Safeguard equipment that transmits power so that employees do not become entangled, pinched, or caught in moving parts. Belts and pulleys, flywheels, chains, sprockets, and gears must all be guarded.

Fire Safety (Safety, Part 6, Part 8 and Part 9) – Recognize and prevent fire hazards, maintain fire exits, and install fire extinguishers.

Electrical Safety (Safety, Part 39 and Part 40) – Train employees who are exposed to potential electrical hazards.

Lockout/Tagout (Safety, Part 85) – Develop a lockout/tagout program to protect employees during machine and equipment servicing or maintenance where unexpected machine energization, start-up, or release of stored energy could cause injury to employees.

Flammable and Combustible Liquids (Safety, Part 75) – Design and construct inside storage rooms and follow safe handling requirements for flammable and combustible liquids.

Welding and Cutting (Safety, Part 12) – Provide a safe environment for persons involved in welding, cutting, soldering, brazing, and acetylene generating in, about, or around places of employment.

Hand and Portable Powered Tools (Safety, Part 38) – Maintain and operate hand tools and portable powered tools in a safe manner.

Air Receivers (Safety, Part 93) – Follow safe operating practices for compressed air receivers and other equipment used in providing and utilizing compressed air for performing operations such as painting and cleaning.

Polishing, Buffing, and Abrading (Safety, Part 11) – Operate buffing and polishing wheels and coated abrasives in a safe manner.

Spray-finishing Operations (Safety, Part 76 and Health, Part 528) – Design and operate spray booths and rooms to prevent fire hazards.

To obtain a copy of the standards, contact the MIOSHA Safety Standards Section of the Department of Labor and Economic Growth at (517) 322-1845 or go to **www.michigan.gov/miosha** and download them. If you have safety and health training questions, contact the Consultation Education and Training Division. Occupational safety consultants and industrial hygienists can help you understand and comply with the standards free of charge. Call (517) 322-1809 or go to **www.michigan.gov/miosha.**

APPENDIX D – Construction and Fire Codes

Construction Codes

All automotive mechanical repair facilities must be designed according to code in terms of the actual structure and plumbing, electrical, and mechanical systems. The purpose of the code is to ensure the safety and welfare of the building inhabitants. Construction or alteration to a building is largely regulated by local units of government. For new construction or alterations of an existing building, the business owner must submit plans and specifications signed and sealed by a Michigan licensed architect or engineer to the respective municipality. During plan review, the building official or inspector and fire marshal will review and sign off on the plans if compliance with the building, plumbing, electrical, and plumbing codes is demonstrated. Once the construction is completed, a final inspection is conducted by the building inspector. For construction of a new building, a certificate of occupancy is issued and the business is allowed to operate.

All Michigan municipalities are required to administer and enforce the same building, plumbing, electrical, and mechanical codes adopted by the state. Michigan has adopted the International Codes and NFPA Electrical Code with some changes. If a municipality does not have a building department, the plan review will be conducted by the Michigan Department of Labor and Economic Growth (DLEG), Bureau of Construction Codes.

If your local unit of government does not have a building department or you are not sure who to call, contact the DLEG, Bureau of Construction Codes at (517) 241-9302 or go to **www.michigan.gov/bcc**.

Fire Codes

In addition to the construction codes, many local units of government adopt a national fire prevention code. Fire prevention codes pertain to the subsequent operation and maintenance of the building that ensure the prevention of fire and the protection of life from exposure to the dangers of fire and explosion. The codes address such fire safety issues as fire protection systems (i.e., fire alarms, fire suppression systems), fire exits, use and maintenance of specific equipment and processes, and storage and handling of flammable and combustible materials.

Fire marshals from municipalities conduct routine inspections to ensure compliance with the locally adopted fire prevention code. Unlike the construction codes, there is no statewide fire code. If there is not a fire code adopted by the local jurisdiction, the State Rules for Fire Prevention, which reference the National Fire Protection Association (NFPA) Standard No.1, is applicable. These rules are enforced by the Michigan Department of Labor and Economic Growth, Bureau of Fire Services. Contact that office at (517) 241-8847 or **www.michigan.gov/dleg**.

If you have fire safety related questions or if your local fire department has not visited your facility within the last year or two, contact your local fire chief or marshal. View the "Michigan Fire Service Directory" at **www.michigan.gov/dleg**. Provide your local fire department with a list of your flammable and hazardous materials, as well as a drawing identifying where they are stored.

APPENDIX E – Laboratory Testing

Sometimes it will be necessary to test samples of your waste to determine if it is hazardous waste or liquid industrial waste. When you need to do this, hire a reputable firm to provide these services and obtain a written contract. The contract should clearly identify what specific services that company will provide. For example, instead of just containing vague language about sampling the waste, it should identify:

- Who will be responsible for collecting the sample?
- Who will arrange to have it analyzed?
- Who will arrange to have an expert look at the analysis results?
- Who will determine if the waste is hazardous and at what regulatory limit?

It is a good idea to check with the treatment, storage, and disposal facility (TSDF) where you intend to send your waste before hiring a testing laboratory. They might require specific laboratory tests and only accept data from specific laboratories. If that is the case, ask them for a listing of these tests and the purpose of the tests, along with the approved testing methods and the acceptable laboratories. This step will prevent you from spending money on laboratory tests which are not necessary or that do not meet the treatment, storage, and disposal facility's requirements. A searchable directory of environmental and drinking water testing laboratories is available on the Web at **www.michigan.gov/deqlaboratoryservices**.

Samples used for these tests must be representative of the waste you generate. If you change a process or products that result in a change of your wastes, you need to repeat the tests. The laboratory must use U.S. EPA-approved testing methods. Laboratories will provide documentation about the components and characteristics of the waste. In some cases, the tests will save you money by showing that you do not have hazardous waste. Keep your analytical results on file at least three years.

The filter test is a method used to determine the presence of free liquids in a representative sample of waste. A predetermined amount of material is placed in a paint filter. If any portion of the material passes through and drops from the filter within the 5-minute test period, it contains free liquids. If these wastes are not regulated under the hazardous waste regulations, they are regulated as a liquid industrial waste.

The Toxicity Characteristic Leaching Procedure (TCLP) is U.S. EPA Method 1311 that is used to determine if a waste has toxicity characteristics in amounts that meet or exceed regulatory limits causing it to be regulated as hazardous waste. The TCLP was designed to predict whether a waste is likely to leach chemicals into groundwater. It simulates the conditions a waste might encounter in a typical municipal solid waste landfill. Be aware that it is not necessary to identify every chemical component of the waste in order to meet the hazardous waste regulations and ensure adequate treatment or disposal. It may not be necessary to run a TCLP for every constituent included on the "D" list if you are familiar with your process. For example, you may only need to have a TCLP done for metals and volatiles if you know that the other constituents are not present in the waste. In other situations, you may only need to know if a liquid waste is ignitable and can request a flashpoint test, or if it is corrosive and have a pH test done.

Special tests might be required if you have drums or containers of mixed or unidentified old waste. You may be able to minimize laboratory testing costs by providing information about your waste streams and operations that were previously collected during your waste survey.

Although it is not commonly done, you may be able to conduct some tests on your own to determine if you have hazardous waste. For example, used oil can be tested on-site by using a commercial test kit to determine if it contains total halogens greater than 1,000 ppm requiring it to be handled as a hazardous waste. Discuss these testing options with your permitted and registered waste transporter, TSDF, or recycling company to see if they will accept these test results.

For additional information, refer to the DEQ's fact sheet entitled "Waste Characterization."

APPENDIX F

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

SPILL OR RELEASE REPORT

NOTE: Some regulations require a specific form to use and procedures to follow when reporting a release. Those forms and procedures **MUST** be used and followed if reporting under those regulations. This report form is to aid persons reporting releases under regulations that do not require a specific form. This report form is not required to be used. **To report a release, some regulations require a facility to call the PEAS Hotline at 800-292-4706, or DEQ District Office that oversees the county where it occurred, and other regulating agencies and provide the following information. A follow-up written report may be required. Keep a copy of this report as documentation that the release was reported. If you prefer to submit this report electronically by FAX or e-mail, contact the regulating agency for the correct telephone number or e-mail address.** See the DEQ website on Spill/Release Reporting for more reporting information.

Please print or type all information.

NAME AND TITLE OF PERSON SUBMITTING WRITTEN REPORT	TELEPHONE NUMBER (provide area code)

NAME OF BUSINESS	RELEASE LOCATION (provide address if different than business, if known, and give directions to the spill location. Include nearest highway, town, road intersection, etc.)
STREET ADDRESS	
CITY / STATE / ZIP CODE	
BUSINESS TELEPHONE NUMBER (provide area code)	

SITE IDENTIFICATION NUMBER AND OTHER IDENTIFYING NUMBERS (if applicable)	COUNTY	TOWNSHIP	TIER/RANGE/SECTION (if known)

RELEASE DATA. Complete all applicable categories. Check all the boxes that apply to the release. Provide the best available information regarding the release and its impacts. Attach additional pages if necessary.

DATE & TIME OF RELEASE (if known)	DATE & TIME OF DISCOVERY	DURATION OF RELEASE (if known)	TYPE OF INCIDENT
____/____/____	____/____/____	_____ days	☐ Explosion ☐ Pipe/valve leak or rupture
_____am/pm	_____am/pm	_____ hours	☐ Fire ☐ Vehicle accident
		_____ minutes	☐ Leaking container ☐ Other: _____
			☐ Loading/unloading release _____

MATERIAL RELEASED (Chemical or trade name) ☐ CHECK HERE IF ADDITIONAL MATERIALS LISTED ON ATTACHED PAGE.	CAS NUMBER or HAZARDOUS WASTE CODE	ESTIMATED QUANTITY RELEASED (indicate unit e.g. lbs, gals, cu ft or yds)	PHYSICAL STATE RELEASED (indicate if solid, liquid, or gas)

FACTORS CONTRIBUTING TO RELEASE

☐ Equipment failure ☐ Training deficiencies
☐ Operator error ☐ Unusual weather conditions
☐ Faulty process design ☐ Other:

SOURCE OF LOSS

☐ Container ☐ Ship ☐ Truck
☐ Railroad car ☐ Tank ☐ Other: _____
☐ Pipeline ☐ Tanker

TYPE OF MATERIAL RELEASED

☐ Agricultural: manure, pesticide, fertilizer
☐ Chemicals
☐ Flammable or combustible liquid
☐ Hazardous waste
☐ Liquid industrial waste
☐ Oil/petroleum products or waste
☐ Salt
☐ Sewage
☐ Other: _____
☐ Unknown

MATERIAL LISTED ON or DEFINED BY

☐ CAA Section 112(r) list (40 CFR Part 68)
☐ CERCLA Table 302.4 (40 CFR Part 302)
☐ EPCRA Extremely Hazardous Substance (40 CFR Part 355)
☐ Michigan Critical Materials Register or permit
☐ NREPA Part 31, Part 5 Rules polluting material
☐ NREPA Part 111 or RCRA hazardous waste
☐ NREPA Part 121 liquid industrial waste
☐ Other list: _____
☐ Unknown

IMMEDIATE ACTIONS TAKEN

☐ Containment ☐ Diversion of release to treatment
☐ Dilution
☐ Evacuation ☐ Decontamination of persons or equipment
☐ Hazard removal
☐ Neutralization ☐ Monitoring
☐ System shut down ☐ Other: _____

RELEASE REACHED

☐ Surface waters (include name of river, lake, drain involved): _____ Distance from spill location to surface water, in feet: _____
☐ Drain connected to sanitary sewer (include name of wastewater treatment plant and/or street drain, if known): _____
☐ Drain connected to storm sewer (include name of drain or water body it discharges into, if known): _____
☐ Groundwater (indicate if it is a known or suspected drinking water source and include name of aquifer, if known): _____
☐ Soils (include type e.g. clay, sand, loam, etc.): _____
☐ Ambient Air
☐ Spill contained on impervious surface

EXTENT OF INJURIES, IF ANY	WAS ANYONE HOSPITALIZED?	TOTAL NUMBER OF INJURIES TREATED ON-SITE:
	☐ Yes NUMBER HOSPITALIZED:____ ☐ No	

DESCRIBE THE INCIDENT, THE TYPE OF EQUIPMENT INVOLVED IN THE RELEASE, HOW THE VOLUME OF LOSS WAS DETERMINED, ALONG WITH ANY RESULTING ENVIRONMENTAL DAMAGE CAUSED BY THE RELEASE. IDENTIFY WHO IMMEDIATELY RESPONDED TO THE INCIDENT (own employees or contractor — include cleanup company name, contact person, and telephone number). ALSO IDENTIFY WHO DID FURTHER CLEANUP ACTIVITIES, IF PERFORMED OR KNOWN WHEN REPORT SUBMITTED

☐ **CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED ON ATTACHED PAGE**

ESTIMATED QUANTITY OF ANY RECOVERED MATERIALS AND A DESCRIPTION OF HOW THOSE MATERIALS WERE MANAGED (include disposal method if applicable)

☐ **CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED ON ATTACHED PAGE**

ASSESSMENT OF ACTUAL OR POTENTIAL HAZARDS TO HUMAN HEALTH (include known acute or immediate and chronic or delayed effects, and where appropriate, advice regarding medical attention necessary for exposed individuals.)

☐ **CHECK HERE IF DESCRIPTION OR ADDITIONAL COMMENTS ARE INCLUDED ON ATTACHED PAGE**

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY NOTIFIED:

INITIAL CONTACT BY: ☐ Telephone ☐ Fax ☐ Email ☐ Other

DATE/TIME INITIAL CONTACT: _____

☐ PEAS: 800-292-4706 Log Number Assigned: _____

☐ DEQ District or Field Office

		Divisions or Offices Contacted:
☐ Baraga	☐ Gwinn	☐ Air Quality
☐ Bay City	☐ Jackson	☐ Land & Water Management
☐ Cadillac	☐ Kalamazoo	☐ Office Geological Survey
☐ Crystal Falls	☐ Lansing	☐ Remediation and Redevelopment
☐ Detroit	☐ Newberry	
☐ Gaylord	☐ Warren	☐ Waste and Hazardous Materials
☐ Grand Rapids	☐ Wyoming	
DEQ Office locations are subject to change		☐ Water Bureau

NAME AND TITLE OF PERSON MAKING INITIAL REPORT:

_____

DEQ STAFF CONTACTED & PHONE NUMBER:

OTHER ENTITIES NOTIFIED:

	Date:	Time:
☐ National Response Center (NRC): 800-424-8802	_____	_____
☐ US Coast Guard Office:	_____	_____
☐ Detroit ☐ Grand Haven ☐ Sault Ste. Marie		
☐ US Department of Transportation	_____	_____
☐ US Environmental Protection Agency	_____	_____
☐ 911 (or primary public safety answering point)	_____	_____
☐ Local Fire Department	_____	_____
☐ Local Police and/or State Police	_____	_____
☐ Local Emergency Planning Committee	_____	_____
☐ State Emergency Response Commission via MI SARA Title III Program	_____	_____
☐ Wastewater Treatment Plant Authority	_____	_____
☐ Hazmat Team	_____	_____
☐ Local Health Department	_____	_____
☐ Department of Labor & Economic Growth MIOSHA	_____	_____
☐ Department of Labor & Economic Growth Fire Safety	_____	_____
☐ Michigan Department of Agriculture: 800-405-0101		
☐ Other: _____		

PERSON CONTACTED & PHONE NUMBER:

DATE WRITTEN REPORT SUBMITTED	SIGNATURE OF PERSON SUBMITTING WRITTEN REPORT

THIS IS A MASTER COPY. PLEASE MAKE COPIES AS NEEDED.

APPENDIX G

Important Emergency Numbers

DATE: _____

Important Emergency Numbers

Complete this page, make copies, and post next to each telephone.

LOCAL EMERGENCY ASSISTANCE TELEPHONE NUMBERS

FIRE DEPARTMENT

EMERGENCY: **911** GENERAL: _____

LOCAL POLICE

EMERGENCY: **911** GENERAL: _____

COUNTY SHERIFF

EMERGENCY: **911** GENERAL: _____

STATE POLICE

EMERGENCY: **911** GENERAL: _____

AMBULANCE

EMERGENCY: **911** GENERAL: _____

ELECTRIC COMPANY

EMERGENCY: _____ GENERAL: _____

GAS COMPANY

EMERGENCY: _____ GENERAL: _____

LOCAL HOSPITAL

_____

FACILITY EMERGENCY CONTACT

_____

LOCAL EMERGENCY MANAGEMENT COORDINATOR

_____

COUNTY ROAD COMMISSIONER

_____

COUNTY DRAIN COMMISSIONER

_____

SPILL/CLEANUP CONTRACTOR

_____

FACILITY INFORMATION:

Name of Facility: _____

Telephone Number: _____

Address of Facility: _____

_____

_____

County: _____

Township: _____

Section: _____

Site ID No.: _____

Directions to facility: Help can come from any direction. Be sure to write down exact, simple, and accurate directions.

_____

_____

_____

_____

_____

_____

_____

State and federal agency telephone numbers:

Pollution Emergency Alerting System (PEAS), DEQ **1-800-292-4706**

National Response Center **1-800-424-8802**

Michigan Poison Control System **1-800-222-1222**

APPENDIX H

Michigan Automotive Mechanical Repair Facility
Return-to-Compliance Plan

If you are not in compliance with a requirement identified in the audit, you will be directed to complete a Return-to-Compliance (RTC) Plan. You will need to complete an RTC Plan for each requirement you do not meet. Four RTC Plans can be entered on this page. If additional plans need to be completed, make or print copies of this form.

Return-to-Compliance Plan __of __

1. Question from the Compliance Workbook for which you are reporting non-compliance: _____
   Question Number
2. Describe the Requirement (provide brief description below):

3. What corrective action will you or have you taken to return to compliance (provide brief description below):

4. Date you will return to compliance: _____
   MM/DD/YY

Return-to-Compliance Plan __ of __

1. Question from the Compliance Workbook for which you are reporting non-compliance: _____
   Question Number
2. Describe the Requirement (provide brief description below):

3. What corrective action will you or have you taken to return to compliance (provide brief description below):

4. Date you will return to compliance: _____
   MM/DD/YY

- Make additional copies of this form if necessary -

Return-to-Compliance Plan __ of __

1. Question from the Compliance Workbook for which you are reporting non-compliance: _____
   Question Number
2. Describe the Requirement (provide brief description below):

3. What corrective action will you or have you taken to return to compliance (provide brief description below):

4. Date you will return to compliance: _____
   MM/DD/YY

Return-to-Compliance Plan __ of __

1. Question from the Compliance Workbook for which you are reporting non-compliance: _____
   Question Number
2. Describe the Requirement (provide brief description below):

3. What corrective action will you or have you taken to return to compliance (provide brief description below):

4. Date you will return to compliance: _____
   MM/DD/YY

- Make additional copies of this form if necessary -

APPENDIX I - Recordkeeping File Names

During an inspection conducted by the DEQ, you will be asked to provide documents pertaining to a variety environmental regulations. We have provided the following file names you can use to set up your DEQ filing system. You may not need to create all of these files. For example, if you do not have a water well that supplies water to your employees, you do not need a file for a water well permit. If you have any questions pertaining to what information you need to keep at your facility, please call the Environmental Assistance Program at (800) 662-9278.

Recordkeeping File Name	See Page #
DEQ Environmental Compliance Workbook	Intro
DEQ Return to Compliance Plans	Intro
Phase I and Phase II ESA	1-4
Baseline Environmental Assessment	1-4
Drain & Sewer Destinations	2-3
Groundwater Discharge Authorization	2-5
NPDES Permit	2-6
DEQ Annual Wastewater Reports	2-7
Records of Critical Materials	2-8
Halogenated Solvent Notification Report	3-2
Air Permit for Solvent Still	3-3
Mechanics Certification for Air Conditioning	3-4
Air Conditioning Repair Transactions	3-5
Refrigerant Purchases	3-5
Refrigerant Reclamation Shipping Papers	3-5
Catalytic Converter Replacement Invoices	3-6
Waste Characterization Documentation	4-1
Solid Waste Disposal Invoices	4-12
Scrap Tire Transportation Records	4-14
Monthly Hazardous Waste Generation Amounts	4-15
Waste Site ID Number	4-17
Spill Response Employee Training	4-19
Antifreeze Sewer Authorization	4-23, 2-3
Antifreeze Accumulation Time	4-23
Batteries – Lead Acid: Shipping Papers	4-24
Batteries – Dry Cell: Landfill Approval	4-25
Batteries – Dry Cell: Shipping Papers	4-25

Recordkeeping File Name	See Page #
Gasoline Disposal Records	4-26
Fluorescent Lights: Landfill Authorization	4-27
Fluorescent Lights: Bulb Crusher Air Permit	4-27
Electronic Office Equipment: Landfill Authorization	4-29
Electronic Office Equipment: Accumulation Time	4-29
Mercury Switches: Landfill Authorization	4-29
Mercury Switches: Accumulation Time	4-29
Used Oil Collection Center	4-32
Used Oil Marketer	4-34
Air Permit for Used Oil-Fired Furnace	4-34
Amount of Used Oil Burned	4-34
Transporter Information	4-34
Treatment, Storage, Disposal Facility Information	4-34
USDOT Hazmat Training Certifications	4-35
Manifest - Generator's Initial Copy	4-36
Manifest Form Final Copy	4-36
Waste Shipment Records (Hauling Own)	4-37
Water Well Sampling	5-1
Water Well Permit	5-2
Daily Inventory Records for Storage Tanks	6-1
Repair Records for Storage Tanks	6-1
Tank Tightness Test Results	6-1
Spill Emergency Training Records	7-1
Emergency Phone Numbers	7-1
Emergency Plan	7-1