

PART 3

WASTE MANAGEMENT REQUIREMENTS

The waste requirements that a crushing facility must follow depend on what kind and how much waste is generated from the facility's activities. The different types of waste include hazardous waste, liquid industrial waste, and solid waste. It is sometimes called "characterizing" a waste when deciding what kind of waste you have. Once the waste is characterized, there are respective management requirements to help employees, waste haulers, and disposal companies easily identify the types of wastes they are handling and to properly dispose of or recycle it. This is described in more detail later. Less waste generated results in fewer regulations to deal with. The number of regulations increases as more hazardous waste is generated.



Several state agencies oversee the following regulations including the Michigan Department of Environmental Quality's (DEQ) Waste and Hazardous Materials Division (WHMD), Air Quality Division (AQD), and Water Bureau; the Michigan Department of Labor and Economic Growth's Michigan Occupational, Safety and Health Act Program (MIOSHA); and the Michigan State Police Motor Carrier Division.

By using the steps outlined below, you can determine which of these common state and federal laws and rules apply to the wastes at your crushing facility and then properly manage it.

An Overview of the DEQ's Waste and Hazardous Materials Programs

First, it is important to understand that different types of waste have different regulations. The following is a short description of each.

- **Hazardous waste** – Part 111 of Act 451. Includes characteristic waste (ignitable, corrosive, reactive, and toxic) or listed waste which includes chemicals and processes that create the waste; overseen by WHMD.
- **Universal waste** – Specified wastes (e.g., electric lamps) that a facility may choose to handle under the alternative hazardous waste rule R 299.9228; overseen by WHMD.
- **Liquid industrial waste** – Part 121 of Act 451. Includes non-hazardous liquid wastes that fail the paint filter test and used oil being recycled; overseen by WHMD. If waste oil is burned, there are additional requirements under Part 55 of Act 451; overseen by AQD.
- **Solid waste** – Part 115 of Act 451. Includes non-hazardous solid waste; overseen by WHMD.
- **Scrap tires** – Part 169 of Act 451; overseen by WHMD.

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There are also other regulations which may be applicable to the types of waste coming from your facility. These include:

- **Flammable and combustible liquids regulations and Fire Protection Code** – when waste has a flashpoint below 200 degrees Fahrenheit, there are additional requirements overseen by WHMD Storage Tank Program (see page 4-2). The local fire department and MIOSHA also have requirements.
- **US Department of Transportation hazardous materials regulations** – when it is hazardous waste; overseen by Michigan State Police.
- **Worker health and safety standards for aboveground operations** – overseen by MIOSHA.
- Discharges of wastewater on site – overseen by Water Bureau. For more information, see page 2-2 in Chapter 2 on Water Quality for more information on these programs.

For more information about waste requirements and the regulations, go to www.michigan.gov/deqwaste and follow the links.

A Step-By-Step Approach To Identifying, Characterizing, And Disposing Of Your Waste Materials

Step 1: Identify all the different wastes you have on site and determine what types of waste your facility generates, including how much hazardous waste is generated in a calendar month.

Waste streams at your site may include those from:

- the office,
- equipment and building maintenance, and
- any area where you are receiving or handling material to crush.

Common examples of wastes and applicable waste codes from crushing companies are listed in Table 3-1. The waste codes are used for labeling hazardous waste containers and manifesting the waste when shipping it off-site. Waste codes also apply to manifesting liquid industrial waste. Sometimes additional information is needed to determine which hazardous waste codes apply if you have used solvents. It may be necessary to read the waste description in the rules to determine which code applies. The table does not include waste codes that may apply if you have some specialty operation or if other chemicals or wastes were mixed with the waste. For example, cross contamination may occur in the maintenance area if overspray from an aerosol brake cleaner was used near some used antifreeze. Additional information about determining the different types of waste is in the guidance document, *Waste Characterization*. Go to www.michigan.gov/deq and select “DEQ Publications” on the right-hand side, select “Searchable,” and type in “Waste Characterization.” Discuss questions with the [WHMD district office](#) (see Appendix E) and your waste disposal company or waste management consultant.

F002 Description in Rule R 299.9220

The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane and 1,1,2-trichloroethane; all spent solvent mixtures and blends containing, before use, a total of 10% or more by volume of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

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Next, use this information about what wastes you have and how much hazardous waste is generated in a calendar month to determine your regulated waste activity and notify WHMD as described in Step 2.

Table 3-1: Common Wastes at Crusher Facilities

COMMON WASTES AT CRUSHER FACILITIES				
Waste Stream	Usual Type of Waste	Disposal or Recycle Recommendations Waste Codes for Shipment	Additional information available?	How much is generated at your site?
Oils and Fuels				
Used Oil	Liquid industrial waste when recycled	Recycle 017L for crankcase oil, 021L for other oils, 019L for coolants and water soluble oils	Used Oil Overview with links to related guidance Used Oil Common Violations	
Used Oil Filters	Solid waste when recycled and drained	Recycle Code not applicable when oils properly drained	Used Oil and Spent Filters	
Waste fuel	Liquid industrial waste when recycled including being used in fuel blending, or hazardous waste	Recycle (e.g., used as fuel): 029L If unusable as is and being disposed, D001	No	
<i>If the total amount of ALL oils (both waste and products including fuels) on site meets or exceeds 1,320 gallons, refer to Chapter 4 on Product Storage and Emergency Planning Requirements.</i>				
Maintenance Related Waste				
Antifreeze	Liquid industrial waste, but may be hazardous waste Note: There is a 2007 proposed rule to include this as universal waste.	Recycle 030L, unless hazardous due to metal concentrations or cross contamination	Antifreeze	
Antifreeze	Liquid industrial waste, but may be hazardous waste Note: There is a 2007 proposed rule to include this as universal waste.	Recycle 030L, unless hazardous due to metal concentrations or cross contamination	Antifreeze	
Batteries- Lead acid	Hazardous waste with exemption when recycled or universal waste	Code not applicable when being recycled	Universal Waste	
Batteries- Dry cell (e.g., AA, C, D sizes)	Recommend handling as universal waste or determine if hazardous waste	Code not applicable when handled as universal waste; code varies with type of battery if handled as hazardous waste	Universal Waste	

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COMMON WASTES AT CRUSHER FACILITIES				
Waste Stream	Usual Type of Waste	Disposal or Recycle Recommendations Waste Codes for Shipment	Additional information available?	How much is generated at your site?
Laboratory wastes	Varies, may be hazardous due to flashpoint or type of solvent used.	D001 or F listing depending on solvents used for quality control testing	Note: Some solvents like trichloroethane are being phased out of use under air ozone regulations	
Light bulbs	Recommend handling as universal waste, if not hazardous waste	Code not applicable when handled as universal waste; code varies with type of bulb if handled as hazardous waste	Electric Lamp and Spent Ballast Universal Waste	
Painting wastes	Paints and painting equipment cleaning solvents may be hazardous or liquid industrial waste depending on product formulation	Varies: Some solvents used to clean painting equipment: F003-F005 Paints: if oil based, may be D001, other codes vary depending on formulation. If non-hazardous: 029L	See Chapter 2, section on painting wastes in the Michigan Manufacturers' Guide to Environmental, Health, and Safety Regulations	
Part washer solvents	May be hazardous or liquid industrial waste depending on type of solvent and flashpoint	Recommend recycling. Codes vary depending on used solvent and concentration. If solvent-based product has flashpoint below 140 degrees Fahrenheit: D001; Listed waste codes (F003, F005, F001, F002, D039, D040) may apply depending on type of solvent used. Water-based cleaning solutions (034L) or may have additional hazardous waste codes if cross contaminated.	See Chapter 2, section on Spent Parts Washers and Other Solvents in the Michigan Manufacturers' Guide to Environmental, Health, and Safety Regulations	
Shop rags	May be hazardous waste due to spontaneous combustion If not hazardous and no liquids present in container, then solid waste	Recommend laundering for reuse to meet hazardous waste recycling exemption. If disposed of, codes vary: D001 if spontaneously combustible or possible listed waste depending on what solvent used with the rag.	See Chapter 2, section on Shop Towels and Other Textiles in the Michigan Manufacturers' Guide to Environmental, Health, and Safety Regulations	

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COMMON WASTES AT CRUSHER FACILITIES				
Waste Stream	Usual Type of Waste	Disposal or Recycle Recommendations Waste Codes for Shipment	Additional information available?	How much is generated at your site?
Crusher Byproducts				
Grinding slurry	Solid waste when handled under exemption or liquid industrial waste	029L when handled as liquid industrial waste	Part 115 concrete grinding slurry exemption	
Wash waters from stone and sand processing	Liquid industrial waste if not discharged on site under Water Bureau requirements as described in Chapter 1 on Water Quality Requirements	029L	No	
Fines and organics from operations	Solid waste (handle under site-specific designation that allows the materials to be left on site with clean cover and possible deed restriction)	Codes not applicable	No	
Tree, stumps, other land clearing debris	Handled on site as inert material under conditions listed in Part 115 rule 299.4114(2)(b)	Codes not applicable	Solid Waste Common Violations	
Concrete and asphalt	Solid waste when meets conditions listed in Part 115 rule R 299.4114(2)(d)	Codes not applicable If bringing materials on site for recycling, make sure it isn't contaminated. Do you know where it came from? What tests were done to ensure it is not hazardous waste? Do you receive copies of waste determinations/test results? Have you done visual inspections of loads? Is it stained, have an odor, or have paint on it?	Solid Waste Common Violations If you accept material for recycling, consider listing your services in the Recycled Materials Market Directory	
Other				
Scrap tires	Scrap tires/solid waste	Whole tires are banned from landfill disposal Codes not applicable	Scrap Tire Common Violations	
Packaging materials (cardboard, wood pallets, etc.)	Solid waste	Recycling recommended Codes not applicable	Recyclers can be found in the Recycled Materials Market Directory	

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COMMON WASTES AT CRUSHER FACILITIES				
Waste Stream	Usual Type of Waste	Disposal or Recycle Recommendations Waste Codes for Shipment	Additional information available?	How much is generated at your site?
Break room waste (food, paper, etc.)	Solid waste	Codes not applicable	No	

Step 2: Notify the WHMD about your regulated waste activities.

Use the information you gathered during Step 1 and make sure you have notified WHMD about your current regulated waste activities and have a site identification number. This number is site specific and does not move with the facility to new locations. Do this before it is time to have the waste shipped off-site when using a manifest (explained in Step 4). If you know you have already notified and the information is current, skip to Step 3.

If you are unsure if your facility previously notified the WHMD or what waste information is on file for your facility, go to the [Waste Data System](http://www.deq.state.mi.us/wdspi) at the DEQ Web site (www.deq.state.mi.us/wdspi). After selecting "Advance Search" on the top bar, enter your street number and zip (postal) code in those fields and hit search. Or call the WHMD district office or the Environmental Assistance Center at 800-662-9278 for help.

If you need to notify (e.g., that you are a liquid industrial waste or hazardous waste generator) and obtain a site identification number or update information on file, you will need to submit the *Site Identification Form EQP 5150*. Follow the instructions and links to the form EQP5150 and online paying option posted at www.deq.state.mi.us/wdspi. When applying for a new number or if you have had an owner/operator change or moved locations, there is an application fee.

If you need help applying for a site identification number or updating your notification, contact the [Environmental Assistance Program](http://www.deq.state.mi.us/wdspi) at 800-662-9278.

Helpful Hint

For first time applications, select initial notification in Box I. For update of information, select subsequent notification in Box I. You can request a pre-populated form from the WHMD by calling 517-335-2690, or the Environmental Assistance Program at 800-662-9278, which you can use to updated your information.

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Following are some fields that are commonly not filled out correctly on the EQP 5150 form. The application will not be processed without all the required information.

Box IV – Inappropriate or missing NAICS code. More detailed descriptions of NAICS codes can be found at www.naics.com. Some common aggregate industry NAICS codes include:

212312	Crushed and Broken Limestone Mining and Quarrying
212313	Crushed and Broken Granite Mining and Quarrying
212319	Other Crushed and Broken Stone Mining and Quarrying
212321	Construction Sand and Gravel Mining
212322	Industrial Sand Mining

Box V – Missing or wrong Federal Identification Number (e.g., your federal tax number) and missing Number of Employees information.

Box IX – Failing to list information for both the site owner and operator along with missing or incomplete month/date/year information for when they became the site owner and operator.

Box X – Failing to select ALL types of regulated waste activities that are applicable to the work site and facility.

Liquid industrial waste is often generated from rock crushing and maintenance activities and some facilities may generate hazardous waste from equipment or building maintenance activities. Used oil generators would select “Box E Liquid Industrial Waste Generator” in addition to any other waste activities.

When hazardous waste is generated, the crushing facility needs to determine the facility’s generator status based on how much hazardous waste is generated in a calendar month.

Crushing operations normally notify as:

- Liquid industrial waste generator because operations normally have generated used oils they recycle and other non-hazardous liquid wastes like stone and sand wash waters they recycle or dispose of off site.
- **Conditionally exempt small quantity generator** (CESQG) which means that less than 220 pounds of all hazardous waste is generated on site in a calendar month, and they never store more than 2,200 pounds of hazardous waste; or
- **Small quantity generator** (SQG) which means between 200 and less than 2,200 pounds of all hazardous waste is generated on site in a calendar month, and they never store more than 13,200 pounds of hazardous waste.

Step 3: Determine if your wastes are being properly managed, recycled, or disposed of on-site.

The environmental requirements for waste depend on the type of waste you have and where it ultimately will be disposed of or recycled. To help you make a thorough assessment of how waste is managed at your job sites, go through the following checklist in Table 3-2 and indicate “yes” or “no” to these basic questions. If you find yourself answering “no” to the question, it could be an indication your facility could use a better method or management plan to properly handle your wastes.

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Table 3-2: Audit Checklist on Current Facility Waste Handling Methods

QUESTION		Yes	No	Problem Corrected?
Waste Type: Wastewater or wash water, septage				
1	If disposing of waste or wash water on site, is the facility meeting the Water Bureau requirements in Chapter 2 of this guide?			
2	If waste or wash water is being shipped off site for recycling or disposal, are containers kept closed and protected from weather and vandals? Are containers labeled so workers know what is in them? Are containers compatible with waste and in good condition?			
3	If porta-johns are used on site or if septic tanks are installed at permanent locations, is the pumping company licensed by the Water Bureau Septage Program ?			
Waste Type: Used Oil				
4	<p>Are used oils being burned at the site for space heating, service water heating, or indirect heating, and are you meeting the following conditions?</p> <ul style="list-style-type: none"> • Does the used oil burner have a rated heat input capacity 500,000 or less BTU per hour? If not, does the facility have an AQD permit for it? • Is the oil you use only generated at the same geographical site where the burner is located? If not, does the facility have an AQD permit for the burner? • Are you burning anything else besides used oil? • Has the facility obtained any local permits required by fire officials, zoning, etc. for the oil burner? • Are you required to meet any insurance company restrictions? <p>If you answered “yes” to any of these questions, you may need to discuss your on-site oil burning activities with your AQD district office.</p>			
5	If the facility is bringing oil from its other sites to a central location for either burning or to consolidate it for shipping it to a recycler, has the facility notified the WHMD that it is operating a used oil collection center or aggregation point?			
6	<p>Are waste oil storage containers labeled “Used Oil” kept closed and protected from weather and vandals? See the Used Oil guidance for more details on storage.</p> <ul style="list-style-type: none"> • If the oil flashpoint is below 200 degrees Fahrenheit, does it meet the storage conditions listed in Chapter 4 of this guide on storage tanks? If there are more than 1,320 gallons of all oils on site, is the facility in compliance with the federal Spill Prevention Control and Countermeasures (SPCC) requirements (see Chapter 4 on Product Storage and Emergency Planning)? 			

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QUESTION		Yes	No	Problem Corrected?
Open Burning or Burying Waste				
7	Are any other wastes being burned without an AQD permit? It is illegal to open burn waste from a business.			
8	<p>Is land clearing debris being buried onsite or at another location approved by the landowner? Does it meet the following conditions?</p> <ul style="list-style-type: none"> • Amount buried is no more than 1 acre in size and not more than 20 feet in depth. • Burial is not in a floodplain or wetland without the Land and Water Management Division's (LWMD) approval. • Buried land clearing debris is not less than 4 feet above groundwater level. • Burial does not create a nuisance. • Burial does not violate other laws including local ordinances. 			
9	<p>Is any concrete or asphalt being reprocessed or disposed of on site?</p> <ul style="list-style-type: none"> • Is it a hazardous waste because of contamination? <i>You cannot accept it from others, use it as fill, or bury it.</i> • If disposed of on site or used as fill, does it have exposed rebar? <i>Burial is not allowed.</i> • Does it contain other construction and demolition waste? <i>Burial is not allowed.</i> • Have you received a permit from the LWMD if you want to put it in a floodplain or wetland area? • Has the WHMD been notified if receiving more than 1,000 cubic yards of all concrete, pavement, construction brick, and masonry? 			
10	Are all liquid industrial waste containers kept closed and labeled so you can tell what is in the container? Are containers compatible with waste and in good condition? Are the containers protected from weather and vandals?			
11	Are all hazardous waste containers properly labeled and managed on site? Specific requirements will depend on your hazardous waste generator status. For more information, see the DEQ's CESQG and SQG guidance documents.			
12	If your crushing activity is aboveground, are waste rags used with solvents put in metal waste baskets and properly disposed of at least once a day at the end of shift? If so, discuss this requirement with MIOSHA Consultation Education and Training Division at 517-322-1809.			
13	Are there any scrap tires stored on site in compliance with any local restrictions? If 500 or more scrap tires are on site, is the site registered with WHMD and meeting the scrap tire storage requirements? Questions can be directed to the WHMD scrap tire inspector for your district.			

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	QUESTION	Yes	No	Problem Corrected?
14	Is solid waste stored in containers and not on the ground? Are you meeting your solid waste hauler and disposal company's requirements? Are any local requirements being met including privacy fencing?			

Step 4: Determine if off-site shipments of hazardous and liquid wastes are being properly managed for recycling or disposal.

Specific requirements for your facility will depend on who is doing the waste hauling and what materials are slated to be disposed of, as identified in the following three options.

The specific shipping labels and other management requirements to prepare materials for shipment will depend on if it is hazardous waste or not and the hazardous waste generator status of the facility. To learn more about the [CESQG](#) and [SQG](#) requirements, see the WHMD's guidance documents on the Web.

Helpful Hint

Also check with your recycling and disposal company for their assistance and business requirements. If you are a CESQG and have generated hazardous wastes that do not contain liquids, check to see if the solid waste disposal company and waste hauler will accept the waste for disposal. Although the waste regulations allow this disposal option at this time, you may want to consider if your company wants to risk potential liability issues if the landfill becomes contaminated in the future.

Hiring Commercial Transporters to Haul the Liquid Industrial or Hazardous Waste

All liquid industrial waste and hazardous waste transport companies must be permitted and registered with the WHMD. Select a transport company with the appropriate waste permit and registration based on the type of waste hauled. If the waste is:

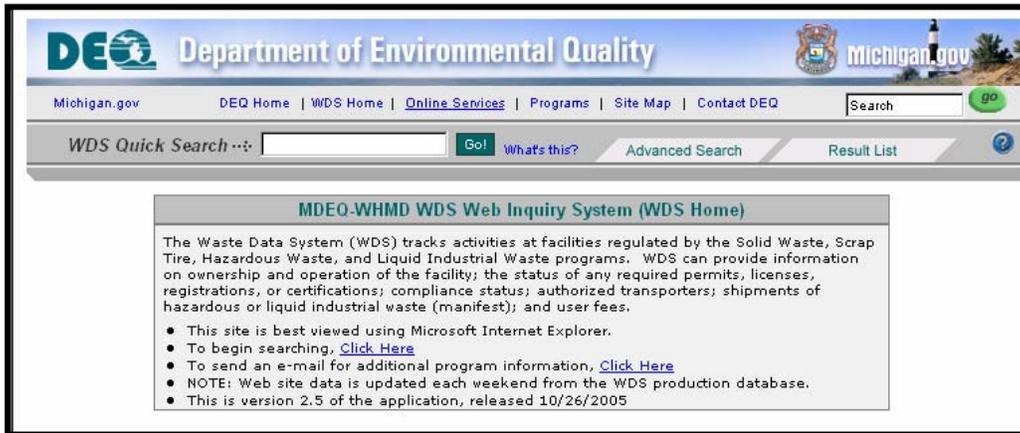
- Non-hazardous liquid — hire uniform liquid industrial waste transporter.
- Hazardous and you are a CESQG of hazardous waste — hire uniform liquid industrial waste transporter or uniform hazardous waste transporter.
- Hazardous and you generate more than 220 pounds of hazardous waste in a calendar month — hire uniform hazardous waste transporter.

To help you in locating authorized transport companies, use the **Waste Data System (WDS)**. WDS tracks activities at facilities regulated by its Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs. WDS can provide you with:

- Information on ownership and operation of a company.
- The status of any required permits, licenses, or registrations.
- The compliance history of a company.
- A list of permitted and registered transporters.
- Manifest records of shipments of hazardous waste.
- User fees assessed to a company.

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To use WDS, go to the Web site at www.deq.state.mi.us/wdspi/.



Select “Advanced Search” in the top tool bar to find transporters or designated companies to take your waste along with their compliance information. Enter your search criteria in desired fields as follows:

- Under the “General Site Information” “Location Address” heading, enter desired geographic criteria like a county or DEQ district office if you want to narrow the results to companies located near you (see Appendix E).
- To find “Designated Facilities” that have notified they accept liquid industrial waste:

Click to expand the “Hazardous & Liquid Industrial Waste Site Activity Information” and under the “Liquid Industrial Waste Activity” heading, select “Yes” next to the “Designated Facility” field.



- To find a list of permitted and registered transporters:

Click to expand the “Hazardous & Liquid Industrial Waste Transporters” and select the type of transporter from the drop down menu.



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- Select the “Search” button either on the top or bottom of the form to get a list of “Designated Facilities.”

Click on the Site Name to find more information about the company. Some of the companies listed only handle their own waste, so look for names that indicate they may take wastes from other companies.

Search Results							Export Res
Site Name	Site ID	WMD ID	Address	City	State	Zip	Count
DETROIT EDISON CO	MID000718841	392551	4605 KING RD	CHINA TOWNSHIP	MI	48079	ST CLA
MOTOR CITY MATERIALS LLC	MID000722579	392627	126 W PLEASANT	RIVER ROUGE	MI	48218	WAYNE
MICHIGAN DISPOSAL WASTE TREATMENT PLANT	MID000724831	392708	49350 NORTH 194 SERVICE DRIVE	BELLEVILLE	MI	48111	WAYNE
INDIANA MICHIGAN POWER COMPANY	MID000810689	392853	606 RED BUD TRAIL N	BUCHANAN	MI	49107	BERRIE
INDIANA MICHIGAN POWER COMPANY	MID000810697	392854	2425 MEADOWBROOK RD	BENTON HARBOR	MI	49022	BERRIE
PHARMACIA & UPJOHN COMPANY LLC	MID000820381	392863	7171 PORTAGE RD	PORTAGE	MI	49001	KALAMA
DARLING INTERNATIONAL INC	MID005322649	393174	3350 GREENFIELD RD	MELVINDALE	MI	48122	WAYNE
MICHIGAN REUTILIZATION LLC	MID005358130	393469	1780 E SUPERIOR ST	ALMA	MI	48801	GRATIO
ALMA PRODUCTS I INC	MID005378146	393623	2000 MICHIGAN AVE	ALMA	MI	48801	GRATIO
PROGRESSIVE METAL FORMING INC	MID005498423	393780	10850 HALL RD	HAMBURG	MI	48139	LIVINGS
LIQUID INDUSTRIAL WASTE SERVICES INC	MID006546121	394299	11325 EAST LAKEWOOD BLVD.	HOLLAND	MI	49424	OTTAW

- If there are no facilities listed within your initial search area, change your search criteria or contact the local wastewater treatment plant to see if they are interested in accepting your wastewater. Have the wastewater treatment plant authority call the WHMD district office (see Appendix E) or the DEQ’s Environmental Assistance Program at 800-662-9278 to discuss their requirements and submitting a notification to accept liquid industrial waste.

As a waste generator, you are also required to meet the manifest or consolidated manifest requirements when hiring a transporter. Most commercial transporters and disposal companies will provide the national “Uniform Hazardous Waste Manifest” which is used for both liquid and hazardous waste shipments. It is important to remember to get copies back from the treatment, storage, and disposal facilities you use and submit your copies to the WHMD within the required timeframes. If consolidated manifests are used, meet the requirements listed in the WHMD’s *Operational Memo 121-3*. The operational memos, along with the instructions for completing manifests, chart timeframes, and manifest log for tracking manifests are available on the Web at www.michigan.gov/deqwaste under “Uniform Manifest Information.”

Hauling 55 Gallons or Less of Your Own Generated Liquid Industrial Waste (includes used oil) and Hazardous Waste When the Facility is a CESQG

If you are hauling 55 or less gallons of your own liquid industrial or hazardous waste as a CESQG, there are some steps you must follow in order to complete the disposal process. The following is a list of those steps.

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- Document through recordkeeping where the waste was from, how much is being hauled, and where it is being taken with the waste shipment. It is not necessary to use a waste manifest if all these requirements in this section are met.
- Obtain a signature from the designated facility acknowledging receipt of the waste and provide them with a copy of the record.
- Keep a copy of the shipment record for at least three years.
- Have adequate insurance coverage (check that your insurance company will cover potential accidents).
- Both the designated facility and the generator of the waste must manage the waste according to the liquid industrial waste regulations to protect the environment and human health.
- You must also meet federal and state transportation requirements when you are disposing of a hazardous material. Discuss those requirements along with using a "Bill of Lading" with the Michigan State Police (MSP) Traffic Safety Division. For more information on the transportation requirements of hauling a hazardous material, visit the MSP Web site at www.michigan.gov/msp or call 517-336-6580.

STRAIGHT BILL OF LADING
Hazardous Materials (49 CFR 171.101-171.103)

Shipper No. _____ Carrier No. _____ Date _____

Shipper Name _____ Shipper Address _____ Shipper City _____ Shipper State _____ Shipper Zip Code _____

Carrier Name _____ Carrier Address _____ Carrier City _____ Carrier State _____ Carrier Zip Code _____

No. of Units	Material Description	UN Number	PG	Quantity	Weight	Volume	Other
4 Drums	UN1805, Phosphoric acid solution, 8, PGIII	1805	III	4 gal			
4 Drums	Phosphoric acid solution, 8, UN1805, PGIII	1805	III	4 gal			

Basic Description sequence and UN Harmonization.
The examples shown above are allowed in § 172.202(b). For international shipments, the ISHP sequence is mandatory January 1, 2007. Voluntary compliance for Domestic shipments begins January 1, 2007. Mandatory compliance for the ISHP sequence is January 1, 2013. This guide provides examples using the ISHP sequence.

PLACARDS REQUIRED - YES (Y) NO (N)

PLACARD 1 (Y) PLACARD 2 (Y) PLACARD 3 (Y) PLACARD 4 (Y) PLACARD 5 (Y) PLACARD 6 (Y) PLACARD 7 (Y) PLACARD 8 (Y) PLACARD 9 (Y) PLACARD 10 (Y) PLACARD 11 (Y) PLACARD 12 (Y) PLACARD 13 (Y) PLACARD 14 (Y) PLACARD 15 (Y) PLACARD 16 (Y) PLACARD 17 (Y) PLACARD 18 (Y) PLACARD 19 (Y) PLACARD 20 (Y) PLACARD 21 (Y) PLACARD 22 (Y) PLACARD 23 (Y) PLACARD 24 (Y) PLACARD 25 (Y) PLACARD 26 (Y) PLACARD 27 (Y) PLACARD 28 (Y) PLACARD 29 (Y) PLACARD 30 (Y) PLACARD 31 (Y) PLACARD 32 (Y) PLACARD 33 (Y) PLACARD 34 (Y) PLACARD 35 (Y) PLACARD 36 (Y) PLACARD 37 (Y) PLACARD 38 (Y) PLACARD 39 (Y) PLACARD 40 (Y) PLACARD 41 (Y) PLACARD 42 (Y) PLACARD 43 (Y) PLACARD 44 (Y) PLACARD 45 (Y) PLACARD 46 (Y) PLACARD 47 (Y) PLACARD 48 (Y) PLACARD 49 (Y) PLACARD 50 (Y) PLACARD 51 (Y) PLACARD 52 (Y) PLACARD 53 (Y) PLACARD 54 (Y) PLACARD 55 (Y) PLACARD 56 (Y) PLACARD 57 (Y) PLACARD 58 (Y) PLACARD 59 (Y) PLACARD 60 (Y) PLACARD 61 (Y) PLACARD 62 (Y) PLACARD 63 (Y) PLACARD 64 (Y) PLACARD 65 (Y) PLACARD 66 (Y) PLACARD 67 (Y) PLACARD 68 (Y) PLACARD 69 (Y) PLACARD 70 (Y) PLACARD 71 (Y) PLACARD 72 (Y) PLACARD 73 (Y) PLACARD 74 (Y) PLACARD 75 (Y) PLACARD 76 (Y) PLACARD 77 (Y) PLACARD 78 (Y) PLACARD 79 (Y) PLACARD 80 (Y) PLACARD 81 (Y) PLACARD 82 (Y) PLACARD 83 (Y) PLACARD 84 (Y) PLACARD 85 (Y) PLACARD 86 (Y) PLACARD 87 (Y) PLACARD 88 (Y) PLACARD 89 (Y) PLACARD 90 (Y) PLACARD 91 (Y) PLACARD 92 (Y) PLACARD 93 (Y) PLACARD 94 (Y) PLACARD 95 (Y) PLACARD 96 (Y) PLACARD 97 (Y) PLACARD 98 (Y) PLACARD 99 (Y) PLACARD 100 (Y)

SHIPPER: _____ DATE: _____

CARRIER: _____ DATE: _____

Hauling More Than 55 Gallons of Your Own Liquid Industrial Waste

If you are hauling more than 55 gallons of your own liquid industrial waste, there are also some steps you must follow in order to complete the disposal process.

- Notify the WHMD that you are transporting your own liquid industrial waste and are a liquid industrial waste generator and obtain a site identification number if you have not already done so. See Step 2. It is not necessary to become a permitted and registered transporter.
- Use the uniform hazardous waste manifest which is also used for liquid industrial waste shipments or use a consolidated manifest. If consolidated manifests are used, meet the requirements listed in the [Operational Memo 121-3](#). Manifest information is available at www.michigan.gov/deq/waste.
- Obtain insurance coverage as required by the federal Hazardous Materials Transportation Act:
 - If using vehicles under 10,000 pounds gross vehicle weight, have fleet coverage of at least \$300,000.
 - If using vehicles equal to or over 10,000 pounds gross vehicle weight, have fleet coverage of at least \$750,000.
- Get a copy of the federal form [MCS-90](#) from your insurance company and send it to DEQ WHMD, Attn: Transportation Program Technician, Southeast MI District Office, 27700 Donald Court, Warren, MI 48092-2793.

U.S. Department of Transportation Form Approved OMB No. 2125-0015

MOTOR CARRIER PUBLIC LIABILITY SURETY BOND
UNDER SECTIONS 29 AND 30 OF THE MOTOR CARRIER ACT OF 1980

PARTIES
Surety Company and Principal: _____
Motor Carrier Principal, ICC Docket No., and Principal Place of Business Address: _____

PURPOSE
This is an agreement between the Surety and the Principal under which the Surety, its successors and assigns, agree to be responsible for the payment of any final judgment or judgments against the Principal for public liability and property damage, and environmental restoration liability claims in the sums prescribed herein, subject to the governing provisions and following conditions.

GOVERNING PROVISIONS
(1) Sections 29 and 30 of the Motor Carrier Act of 1980 (49 U.S.C. 10927 note)
(2) Rules and Regulations of the Federal Highway Administration (FHWA)
(3) Rules and regulations of the Interstate Commerce Commission (ICC)

CONDITIONS
The Principal is or extends to become a motor carrier of property subject to the applicable governing provisions relating to financial responsibility for the protection of the public.
This bond assures compliance by the Principal with the applicable governing provisions, and shall issue to the benefit of any person or persons who shall recover a final judgment or judgments against the Principal for public liability, property damage, or environmental restoration liability claims (excluding injury to or death of the Principal's employee while engaged in the course of their employment, and loss of or damage to property of the Principal, and the cargo transported by the Principal). If every final judgment shall be paid for such claims resulting from the negligent operation, maintenance, or use of motor vehicles in transportation subject to the applicable governing provisions, then this obligation shall be void, otherwise it will remain in full effect.
Within the limits described herein, the Surety extends to such losses regardless of whether such motor vehicles are specifically described herein and whether occurring on the route or in the territory authorized to be served by the Principal or elsewhere.
The liability of the Surety on each motor vehicle subject to the financial responsibility requirements of Sections 29 and 30 of the Motor Carrier Act of 1980 for each accident shall not exceed \$ _____ and shall be a continuing one notwithstanding any recovery thereunder.
The Surety agrees, upon telephone request by an authorized representative of the FHWA or ICC, to verify that the surety bond is in full force as of a particular date. The telephone number to call is: _____
This bond is effective from _____ (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described herein. The Principal or the Surety may at any time terminate this bond by giving (1) thirty-day (30) days notice in writing to the other party (said 30 days notice to commence from the date the notice is mailed, proof of mailing shall be sufficient proof or notice), and (2) if the Principal is subject to the ICC's jurisdiction, by providing thirty (30) days notice to the ICC (said 30 days notice to commence from the date notice is received by the ICC at its office in Washington, D.C.). The Surety shall not be liable for the payment of any judgment or judgments against the Principal for public liability or property damage claims resulting from accidents which occur after the termination of this bond as described herein, but such termination shall not affect the liability of the Surety from the payment of any such judgment or judgments resulting from accidents which occur during the time the bond is in effect.

Date

Surety

City State

By _____
ACKNOWLEDGMENT OF SURETY

STATE OF _____ COUNTY OF _____

WASTE MANAGEMENT REQUIREMENTS

Step 5: Determine if solid waste is properly handled and shipped off site for disposal or recycling.

Local ordinances may require fencing around the waste dumpsters. Do not store solid waste directly on the ground. Use closed containers to control blowing of waste, and to prevent odors, and the presence of rodents.

NOTE: Do not put banned waste in the trash that might be headed for a landfill. Banned waste includes certain types of beverage containers, yard clippings, liquid waste, lead acid batteries, whole scrap tires, etc. Contact the commercial solid waste hauler, landfill, transfer facility, or incinerator operator for their requirements.

Your facility has two options for hauling trash (solid waste) off site:

1. Haul your own waste to a permitted transfer station, licensed landfill, or incinerator. As you transport your trash, use a cover to prevent waste from blowing out of your transport vehicle. Additionally, you should not have any liquids dripping out of bags or containers.
2. Hire a waste hauler. The WHMD does not license solid waste haulers. Check the yellow pages or contact a landfill or incinerator for waste hauling companies that service your area.

Step 6: Determine if scrap tires are properly handled and shipped off site for disposal or recycling.

Contact your local fire department or local health department about local storage requirements. If at all possible, avoid collecting 500 or more used tires on your property. Those with 500 or more used tires must register with the WHMD as a collection site. Whole scrap tires are prohibited from disposal in landfills.

There are several disposal options available depending on the number of scrap tires you have. You can:

- Haul 7 or less of your own scrap tires at a time to a registered collection site or disposal area licensed under Part 115. Lists of registered companies are available online at www.michigan.gov/deq/waste under “Scrap Tires.”
- Check if your solid waste hauler will accept.
- Hire a registered scrap tire hauler. The registered scrap hauler must give you a *Scrap Tire Transportation Record* form (EQP 5128). You are required to keep that at least three years from the shipment date. Lists of scrap tire haulers are on the above Web site.

DEQ Michigan Department of Environmental Quality, Waste and Hazardous Materials Division	
SCRAP TIRE TRANSPORTATION RECORD	
THIS IS THE ONLY FORM APPROVED FOR USE BY THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY	
<small>This form shall be completed and signed by the scrap tire hauler at the time of collection from the generator. This form shall also be completed and signed by a scrap tire generator or hauler each time that he provides scrap tires for transportation to another facility. A copy shall be retained by the generator before the hauler leaves his site. The hauler may photocopy this form when the tires are delivered shall complete this form upon receipt of the scrap tires, retain a copy for their records, and within three (3) days, forward a copy of the completed form to the generator. The original copy shall be retained by the hauler.</small>	
PART 1: SCRAP TIRE GENERATOR CERTIFICATION	
<small>HAZARDOUS? <input type="checkbox"/></small> <small>TYPE OF TIRE: <input type="checkbox"/> OVERSIZED LEVEL <input type="checkbox"/> PASSENGER CAR, <input type="checkbox"/> TRUCK <input type="checkbox"/> OVERSIZED, <input type="checkbox"/> PASSENGER TIRE EQUIPMENT, <input type="checkbox"/> OTHER</small> <small>GEN. WEIGHT _____ TIRE WEIGHT _____</small> <small>MAILED ADDRESS _____</small> <small>CITY _____ STATE _____ ZIP CODE _____</small> <small>PHYSICAL ADDRESS _____</small> <small>CITY _____ STATE _____ ZIP CODE _____</small> <small>COUNTY _____</small> <small>PHONE # (INCLUDING AREA CODE) _____</small>	<small>VOLUME/WEIGHT OF PROCESSED TIRES (CUT, SHREDDING, ETC.) TO BE TRANSPORTED _____</small> <small>DATE PROCESSED: _____</small> <small>I hereby certify that the above indicated scrap tires were collected in the normal course of business in _____ County, and are destined to be transported to the facility identified in Part 3 of this form. I certify under penalty of law that the information contained on this form, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of a fine and imprisonment for knowing violations.</small> <small>SCRAP TIRE GENERATOR AUTHORIZED SIGNATURE: _____</small> <small>PRINT NAME: _____</small> <small>DATE: _____</small>
PART 2: SCRAP TIRE HAULER CERTIFICATION	
<small>ME SCRAP TIRE COLLECTION SITE REG. # _____ OTHER ID # _____</small> <small>NAME _____</small> <small>MAILED ADDRESS _____</small> <small>CITY _____ STATE _____ ZIP CODE _____</small> <small>PHONE # (INCLUDING AREA CODE) _____</small>	<small>I hereby certify that on this date the above indicated scrap tires were received from the scrap tire generator identified in Part 1 of this form for delivery to the facility identified in Part 3 of this form. I certify under penalty of law that the information contained on this form, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of a fine and imprisonment for knowing violations.</small> <small>SCRAP TIRE HAULER AUTHORIZED SIGNATURE: _____</small> <small>PRINT NAME: _____</small> <small>DATE: _____</small> <small>TOTAL WEIGHT _____</small> <small>TIRE WEIGHT _____</small> <small>TOTAL POUNDS OF TIRES BEING TRANSPORTED _____</small>
PART 3: SCRAP TIRE END USER/PROCESSOR/DISPOSER CERTIFICATION	
<small>ME SCRAP TIRE COLLECTION SITE REG. # _____</small> <small>NAME _____</small> <small>PHYSICAL ADDRESS _____</small> <small>CITY _____ STATE _____ ZIP CODE _____</small> <small>PHONE # (INCLUDING AREA CODE) _____</small>	<small>I hereby certify that this facility is approved to receive scrap tires and that I have received the above scrap tires indicated in Part 1 of this form with the authorization to receive scrap tires. I certify under penalty of law that the information contained on this form, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of a fine and imprisonment for knowing violations. I certify that within thirty (30) days from the date I receive these tires I will forward a copy of this completed scrap tire transportation record to the generator listed in Part 1 above.</small> <small>SCRAP TIRE END USER/PROCESSOR/RESPONSOR AUTHORIZED SIGNATURE: _____</small> <small>PRINT NAME: _____</small> <small>DATE: _____</small> <small>TYPE OF FACILITY: <input type="checkbox"/> RECYCLER <input type="checkbox"/> END USER <input type="checkbox"/> ENERGY RECY <input type="checkbox"/> RECYCLER <input type="checkbox"/> LICENSED PART 115 DISPOSAL AREA</small> <small>GEN. WEIGHT _____ TIRE WEIGHT _____</small> <small>TOTAL POUNDS OF TIRES BEING TRANSPORTED _____</small>
<small>TO BE COMPLETED BY END USER/PROCESSOR ONLY</small> <small>NOTIFY GENERATOR BY THREE (3) BUSINESS DAYS</small> <small>DISTRIBUTION: Original must be retained by the Hauler; Copies must be retained by: 1) Generator; 2) Scrap Tire End User/Processor/Disposer; Scrap Tire End User/Processor/Disposer must retain 30 days from receipt of tires until a copy of completed record is to Generator.</small> <small>Additional information required by the generator and/or hauler may be printed on the reverse. See attached instructions on how to complete this form.</small>	