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**HAULED WASTE RECEIVING FACILITY
OPERATING PLAN FOR SEPTAGE & LIQUID
INDUSTRIAL BY-PRODUCT**

Muskegon County Wastewater Management System



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Location and Brief Description

The Muskegon County Wastewater Management System (MCWMS) is located at:

698 Maple Island Rd., N.

Muskegon, MI 49442-9497

Workday Phone: (231) 724-3440 (8:00 am to 5:00 pm)

After Hours Emergency: (231) 722-6575

The MCWMS is a publicly owned treatment works discharging directly to the environment via one outfall and operating under NPDES Permit # MI 0027391. It consists of a land treatment facility encompassing 11,000 acres of aeration, settling, lagoon storage, and irrigation areas. The system capacity is 43 million gallons per day. Currently, the plant receives approximately 12 million gallons per day of flow.

This facility's infrastructure consists of:

- Two complete-mix extended aeration lagoons with capacity of 48 million gallons each;
- Two aerated settling lagoons with a capacity of 96 million gallons each;
- Two waste stabilization/storage lagoons providing a total storage capacity of five billion gallons; and,
- 53 center-pivot irrigation machines for slow rate wastewater application on approximately 5,100 acres of alfalfa, corn, and soybeans.

A hauled waste off-loading site is located on each of the two aerated settling lagoons (see figure 1). One lagoon is in service at any time. Lagoon #3, the west aerated settling lagoon, has its off-loading site located in the northeast corner. Lagoon #4, the east aerated settling lagoon, has its off-loading site located on the northwest corner. Lagoon #2 also has an off-loading station to be used only if directed to for Liquid Industrial By-Product (LIB)

Hours of Operation

Septage is received at MCWMS 24 hours a day seven days per week, including holidays, all year. LIB is received between the hours of 7:00 a.m. – 5:00 p.m. Monday through Friday, excluding holidays (See Attachment A), unless arrangements have been made for alternative hours with the Director of Wastewater (Director). However, the roads on site will not be kept snow plowed beyond the normal off-loading hours of 7:00 a.m. to 5:00 p.m., Monday through Friday.

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Designated Off-loading Locations

The designated off-loading must be used by the waste hauler. If a hauler is unsure of where to off-load upon arrival, he should proceed to the Administration Building for directions or may call (231) 215-8297 for assistance. Disposal of hauled waste at the wrong location may result in the loss of the hauler's disposal permit. The following provides a description of the off-loading locations:

The off-loading locations for septage and LIB are between Aerated Settling Lagoons 3 and 4 near the wash station up on the dike behind the Administration Building and for certain LIB between Full Mix Lagoons 1 and 2 another half mile west. MCWMS shall decide at which location the trucked industrial by-product shall be discharged based upon the characteristics of the by-product that is being hauled. Trucked industrial by-product shall be discharged into the lagoon that has the most aerators running if the hauler is directed to lagoons 3 and 4. Otherwise the hauler shall discharge the trucked industrial by-product into Full Mix Lagoon 1 or 2. Concrete parking lot bumpers have been anchored so that haulers may back up close to the water in lagoons 3 and 4. These bumpers shall remain in place as backing down or walking down further onto the cell side slope is dangerous and is not permitted. The industrial by-product hauler needs to discharge the by-product over the low wall in the northeast corner of Full Mix Lagoon 1 or the northwest corner of Full Mix Lagoon 2 if required to discharge in these lagoons.

Hauled Waste Receiving Procedure

Septage haulers wishing to dispose of their waste at the MCWMS must have both a business license and a Wastewater Discharge Permit. The business license is issued by the State and the permit is issued by the County. LIB haulers must obtain LIB transporter credentials license and a Wastewater Discharge Permit. The transporter credentials license is issued by the State and the permit is issued by the County. A hauler with a Wastewater Discharge Permit will be provided with a proximity Radio Frequency Identification (RFID) card for each vehicle it wishes to use in disposing of hauled waste at the MCWMS. A hauler wishing to dispose of waste will first proceed to the hauled waste scales (see figure 2) and drive onto it when the traffic light at the scale is green.



Figure 1 - Septic Hauler discharging into Cell #4



Figure 2 - Hauled Waste Scales

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Once the readout on the scales has stabilized, the driver needs to scan the RFID card by waving it in front of the proximity card reader. The driver must indicate the product type of waste by keypad. The product types of wastes are “septage,” “grease,” “mixed” (i.e., septage mixed with not more than 25% of either food establishment septage or bakery oils and greases of animal or vegetable nature), or “other.” The requirement to indicate the product type may be eliminated if the hauler always carries the same product type and the card is coded for that product by the MCWMS. An initial weigh in will be recorded by the weigh scale. The driver may then proceed to the applicable hauled waste off-loading site once the arm of the traffic gate is up.

If the waste hauler forgets or misplaces his RFID card, they need to proceed to the MCWMS Administration Building or call (231) 215-8297 for assistance. The card can be replaced or the data from the scale can be manually entered into the system. There is a fee for replacing a card and for manual transactions.

If there is a malfunction with the RFID card, or the traffic gate arm does not go up, the driver should contact the MCWMS Administration Building at (231) 215-8297 or (231) 724-3440 during regular office hours or (231) 722-6575 during the off hours and await instruction. **The driver may not dispose of the hauled waste without receiving authorization from a MCWMS representative.**

After discharging the hauled waste, the driver needs to proceed back to the hauled waste scale to be weighed again. A final weigh out will be recorded and a digital ticket will be emailed to the generator or hauler or both. It will list the loaded and unloaded weight as well as the difference between them. The volume of hauled waste discharged will be calculated by taking the difference between the loaded and unloaded weight and dividing that result by an 8.345 conversion factor. The driver will then exit the facility by using the designated exit routes. A general physical overview for receiving hauled waste is included as Attachment B of Appendix A.

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Categories of Septage Waste

The MCWMS will accept the following types of waste from a septage hauler:¹

Domestic septage – This septage is the liquid or solid material removed from a septic tank, cesspool, portable toilet, type III marine sanitation device, recreational vehicle's sanitation tank, or similar storage or treatment works that receives only domestic sewage.

Domestic treatment plant septage – This septage is the biosolids generated during the treatment of domestic sewage in a treatment works and transported to a receiving facility.

Food establishment septage (restaurant or bakery waste) – This septage is the material pumped from a grease interceptor, grease trap, or other appurtenance used to retain grease or other fatty substance contained in restaurant or bakery wastes and that is blended into a uniform mixture, consisting of not more than one part of that restaurant-derived material per three parts of domestic septage prior to disposal at the treatment works.

Sanitary sewer cleanout septage – This septage is sanitary sewage or cleanout residue from a separate sanitary sewer collection system that is transported by a Part 117 licensed vehicle to elsewhere within the same system or to a receiving facility that is approved by the Michigan Department of Environmental Quality or its authorized agent.

Other septage – This septage is any other waste subsequently approved for hauling as septage by the Michigan Department of Environmental Quality or its authorized agent.

¹ *Note: If the vehicle's septage tank/trailer is ever used to haul anything but septage, the hauler must comply with the state rules for liquid industrial waste even if hauling septage waste.*

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Conditions for Accepting LIB

LIB is any trucked liquid industrial by-product that is not septage waste. Septage waste is waste from septic tanks, restaurant grease traps, or wastes from sanitary sewer lift stations. Any load of hauled by-product that is a mixture of septage and industrial by-product, or is contaminated with pollutants that are not from septage, is classified as industrial by-product²

1. LIB haulers must have the appropriate permits. Before hauling industrial by-product on public roads, haulers for manufacturers and commercial industries must have a valid hauling permit from the Michigan Department of Environmental Quality (MDEQ). A copy of the MDEQ permit must be on file with the Muskegon County Wastewater Management System (“MCWMS”). Local municipal sources who haul their own by-product are not required to have a hauling permit. All haulers must have a wastewater discharge permit from MCWMS approved by the wastewater system prior to dumping at the disposal site. With the Director’s approval, new LIB haulers may be allowed to dispose of LIB if a disposal permit application, which includes the hauler’s license, has been filed with MCWMS.
2. All LIB haulers must provide a copy of a uniform manifest, a MCWMS manifest, or an approved bill of lading for the LIB they are hauling. This requirement is applicable to all manufacturing, commercial, or governmental sources.
3. Prior to disposal of **new sources of LIB**, permission from MCWMS must be obtained and characterization of the wastewater using appropriate analytical methods must be performed.
4. Since MCWMS does not have a hazardous waste license, permission to dispose of hazardous waste cannot be granted.

Lift Station C is closed to septage and LIB. Unless otherwise authorized by the Director, MCWMS will only receive LIB from 7 a.m. to 5 p.m., Monday through Friday, excluding holidays (see Attachment A of this Appendix). If a hauler is granted permission to off-load during alternative times and/or days, a copy of the manifest shall be left in the document box at the off-loading site.

² Liquid industrial by-product means brine, industrial wastewater, leachate, off-specification commercial chemical product, sludge, sanitary sewer clean-out residue, storm sewer clean-out residue, grease trap clean-out residue, spill residue, used oil, or other liquid by-product that is produced by activity or enterprise determined to be liquid by method 9095 (paint filter liquids test) as described in “Test methods for evaluating solid wastes, physical/chemical methods,” United States Environmental Protection Agency publication no. SW-846, and which is discarded. This definition does not include septage waste or waste collected from sanitary sewer lift stations.

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Hauled Waste Receiving Capacity

The MCWMS allocation allows for 6 million gallons of hauled waste to be accepted per month based on headworks loading.

The number of floating aerators that are operating in the aerated settling lagoon receiving the hauled waste is varied to provide 2 mg/L oxygen in the water as it leaves the treatment lagoon. The aerated lagoon has the capability to run 22 aerators. The MCWMS staff will continue to monitor the aerated lagoons for issues related to hauled waste receiving.

Hauled Waste Receiving Service Area

The primary obligation of the MCWMS is to treat waste from Muskegon County. However, the treatment capacity at the MCWMS exceeds the waste generated in Muskegon County. The MCWMS thus will accept out-of-county waste from locations within the United States. Consequently, the service area is generally limited by the hauler's economic considerations for transporting.

The cleaning of trucks is permitted at the off-loading sites. Three wash stations have been installed for the haulers' convenience. Lagoons 2,3 and 4 have wash stations provided. They may be used to rinse off vehicles or to rinse out vehicle tanks. After use, the hauler must also clean up any residuals on the off-loading site or the pump building. The wash station hoses should be left coiled up with their nozzles placed in their holders in order to prevent them from being damaged.

Other Conditions for Receiving Hauled Waste

State Business License: Commercial septage haulers wishing to dispose of their waste at the MCWMS must have a State issued business license to remove and transport septic tank waste. The only exception to having a license is when the requirement to have a State license is waived by the Michigan Department of Environmental Quality or its authorized agent. As a prerequisite to getting a State license, a septage hauler must get a signed and dated statement from the Director agreeing that the septage hauler may dispose of septage wastes at the MCWMS and that a fee may be charged for that disposal. This statement is normally included in the septage hauler's application form for a State license. However, where a hauler is already licensed but desires to add the MCWMS as a disposal site, such a statement must still be acquired and forwarded to the State. At the MCWMS, the Director is the personnel authorized to sign such a statement.

Uniform Program for Liquid Industrial Waste Transportation Credentials: Commercial LIB haulers wishing to dispose of their waste at the MCWMS must have State issued transportation credentials to remove and transport LIB. The only exception to having the transportation credential is when the generator hauls their own LIB with their own truck.

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Wastewater Discharge Permit: Haulers wishing to dispose of their waste at the MCWMS must have a County issued Wastewater Discharge Permit to dispose of the hauled waste. The Wastewater Discharge Permit is issued by the MCWMS. In addition to authorizing the permittee to discharge hauled waste, it also provides the standards under which that authorization is given. Copies of the policies of the MCWMS and the State's Part 117 or Part 121 rules are also included as attachments to that permit. The application is available on the departmental website at www.muskegoncountywastewatertreatment.com. An application for a permit may also be picked up at the Administration Building of the MCWMS during normal business hours or, upon request, may be mailed or faxed to the applicant. The hours of operations for picking up a permit application are from 8:00 a.m. to 5:00 p.m., Monday thru Friday; excluding County holidays (see Attachment A). Unless the applicant is in the process of acquiring a State license, the application must be accompanied with a copy of the hauler's State license for transporting septage and/or transportation credentials for LIB. A permit will not be issued to a hauler if the hauler does not have an appropriate State license(s) for hauling waste. If over the duration of the Wastewater Discharge Permit, the hauler obtains a new State license, a copy of that license must be provided to the MCWMS.

The Wastewater Discharge Permit shall be in effect for the period of time specified by the MCWMS except where that permit has been revoked or voided, or where suspended by order of the Director. The permit's duration is generally three years. At the discretion of the MCWMS, wastewater discharge permits shall be voidable upon cessation of hauler operations for periods greater than six months or transfer of business ownership. A wastewater discharge permit issued to a hauler is void upon the issuance of a new wastewater discharge permit to that hauler. A new application for a permit must be filed at least 90 days prior to its expiration.

Sampling: Haulers may be subject to sampling of their waste. They will be notified that their load will be sampled either at the hauled waste scales or the off-loading site. Having been notified, the hauler must not off-load until sampling personnel arrive. If the waste appears to be LIB rather than septage, the sampling personnel shall have the authority to require the hauler to cease discharging. On a case-by-case basis, pollutants will be selected. The basic sampling frequency will be to randomly sample two or three septage loads per week. The sampling frequency for LIB is listed in the wastewater discharge permit. The MCWMS specifically reserves the right to modify sampling frequencies as it deems appropriate. Every hauler should be sampled at least once per year. Sampling is conducted for two purposes: to track the pollutant loading to the treatment works, and to assure that the hauler is not disposing of any waste other than what they are permitted and licensed for.

The cost of sampling and analyzing LIB will be borne by the generator unless the generator provides written confirmation from the hauler stating that the hauler will assume that obligation.

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Security: All haulers are subject to video surveillance by motion sensor cameras at the hauled waste scales and at the off-loading sites. The surveillance is to record improper disposal procedures by any hauler. A sheriff's deputy also patrols the MCWMS during random hours.

Noncompliance: A lower flash point limit of 140 °F, an upper pH limit of greater than or equal to 12.5 s.u., and a lower pH limit of 3.0 s.u. are the only numerical limits applicable to hauled waste. Due to the nature of septage, noncompliance with the limits for flash point and the upper pH will not reasonably be a concern. Any attempt to circumvent the hauled waste receiving procedures such as bypassing the hauled waste scales, falsifying the information entered into the control panel, or disposing of hauled waste anywhere other than at the hauled waste off-loading sites, shall be considered a violation of the hauler's Wastewater Discharge Permit.

Noncompliance with a discharge limit, a Wastewater Discharge Permit, or the Sewer Use Ordinance is handled in accordance with the MDEQ-approved Enforcement Response Plan. In general, the hauler is usually required to provide an explanation of the noncompliance and its corrective actions. Depending on severability and repetition factors, however, fines will be assessed, or in extreme situations, the hauler's Wastewater Discharge Permit may be revoked. In the case that a hauler licensed only for septage waste has been found to be hauling LIB or if the hauler has been found to not have a current State septage hauler's license, it is the goal of the MCWMS to inform the appropriate State personnel overseeing the hauled septage waste program and, as appropriate, the hauled liquid industrial by-product program.

Transfer of Ownership: Wastewater discharge permits may be transferred to a new owner or operator only if the hauler gives at least thirty (30) days advance notice to the MCWMS and the MCWMS approves the wastewater discharge permit transfer. The MCWMS shall, upon request, keep notification confidential until completion of transfer. The notice to the MCWMS must include a written certification by the new owner or operator which:

- States that the new owner and/or operator has no immediate intent to change the facility's operations and processes;
- Identifies the specific date on which the transfer is to occur; and,
- Acknowledges full responsibility for complying with the existing wastewater discharge permit.

The wastewater discharge permit is nontransferable where the hauler has moved to a new location and has not given prior notification to the POTW. Failure to provide 30 days' advanced notice of a transfer renders the wastewater discharge permit void as of the date of facility transfer.

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Muskegon County Wastewater Management System Local Limits

The following is a list of local limits of the Muskegon County Wastewater Management System (MCWMS) as approved by the Michigan Department of Environmental Quality on March 12, 2013. The limits are specific to MCWMS treatment plant and consist of Instantaneous, Daily Maximum, and/or Monthly Averages.

TABLE 1: Local Limits for Industries Discharging to the Collection System

Pollutant	Daily Max Limit (mg/l)	Monthly Avg. Limit (mg/l)	Groundwater Discharge Daily Max Limit (mg/l)	Groundwater Discharge Monthly Avg. Limit (mg/l)
BOD	NA	300	NA	50.0
TSS	NA	500	NA	100
Phosphorus	NA	18.0	NA	5.00
Cadmium	0.500	0.250	0.100	0.0500
Chromium	30.0	8.00	0.300	0.100
Copper	1.50	NA	0.0500	NA
Lead	0.750	0.475	0.100	0.0500
Nickel	8.00	3.50	0.100	0.0500
Silver	0.100	0.0500	0.0500	0.0200
Zinc	18.0	NA	0.500	NA
Mercury	<0.0002	NA	<0.0002	NA
Cyanide	0.200	0.100	0.100	0.0500
Acetone	25.0	NA	25.0	NA
Aniline	NA	0.0100	NA	0.0100
Benzene	NA	0.0100	NA	0.0100
Bis(2-ethylhexyl)phthalate	NA	0.400	NA	0.400
2-Butanone (MEK)	NA	2.50	NA	2.50
Carbon tetrachloride	NA	0.0100	NA	0.0100
Chlorobenzene	NA	0.0500	NA	0.0500
Chloroethane	0.0500	NA	0.0500	NA
Chloroform	0.0500	NA	0.0500	NA
1,2-Dichlorobenzene	NA	0.0100	NA	0.0100
1,3-Dichlorobenzene	NA	0.0100	NA	0.0100
1,4-Dichlorobenzene	NA	0.100	NA	0.100
1,1-Dichloroethane	0.150	NA	0.150	NA
1,2-Dichloroethane	0.100	NA	0.100	NA
1,1-Dichloroethylene	NA	0.0150	NA	0.0150
cis-1,2-Dichloroethylene	0.100	NA	0.100	NA
trans-1,2-Dichloroethylene	0.100	NA	0.100	NA
Ethylbenzene	NA	0.200	NA	0.200
N-Ethylaniline	NA	0.010	NA	0.010
Methylene chloride	0.200	NA	0.200	NA
Naphthalene	NA	0.0500	NA	0.0500
Tetrachloroethylene	NA	0.100	NA	0.100
Tetrahydrofuran	0.150	NA	0.150	NA

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Toluene	NA	0.300	NA	0.300
1,1,1-Trichloroethane	NA	0.0750	NA	0.0750
1,1,2-Trichloroethane	0.100	NA	0.100	NA
Trichloroethylene	0.0250	NA	0.0250	NA
Vinyl chloride	NA	0.0100	NA	0.0100
Total Xylenes	NA	0.300	NA	0.300

MCWMS may grant an industry a Specific Alternative Limit (SAL) higher than those published in Table 1. In cases where the Federal Government imposes a categorical limit that is stricter than the local limit, the stricter limit will be imposed. Likewise, if a local limit is stricter than a Federal categorical limit, the local limit will be imposed. The MCWMS Director reserves the right to establish local initiatives. A local initiative is the imposition of a limit in a user permit or order upon a pollutant or flow, which, if not limited, may result in harm to the wastewater treatment plant, its workers or the environment, or which may interfere with the analysis of other limited parameters. The parameter limited in a local initiative may be a pollutant listed in Table 1 or 2 but with a stricter limit than is given for that parameter in Table 1 or 2, or it may be a parameter different than those listed in these tables.

The limits for mercury, unlike those for other pollutants in Table 2, are not derived from a technically determined MAHL. Instead they are driven by the fact that MCWMS is not currently meeting the water quality based effluent limit for mercury of 1.3 nanograms per liter. Therefore, MCWMS is under a State-imposed mercury reduction program. Consequently, no discharge of mercury is permitted at or above 0.0002 mg/L, which is the commonly achieved quantification limit for mercury when analyzed by atomic absorption methods.

TABLE 2: Instantaneous Limits for Industries Discharging to the Collection System

Pollutant Property	Instantaneous Limit	Instantaneous Limit for Groundwater Discharge
Flashpoint, Lower Limit	140°F	140°F
pH, Lower Limit	5.0 s.u.	5.0 s.u.

TABLE 3: Instantaneous Limits for Hauled Waste

Pollutant Property	Instantaneous Limit
Flashpoint, Lower Limit	140°F
pH, Lower Limit	3.0 s.u.
pH, Upper Limit	12.5 s.u.

Attachment A

Muskegon County Legal Holidays

The holidays listed below are currently recognized as Legal Holidays by the County of Muskegon. The actual dates of holiday observance vary somewhat from year to year. A list of the specific dates for the current year's holidays is available by contacting the Muskegon County Wastewater System or by accessing the internet at http://co.muskegon.mi.us/legal_holidays.htm.

New Year's Day
Martin Luther King Day
President's Day
Memorial Day
Independence Day
Labor Day
Veterans Day
Thanksgiving Day
Day after Thanksgiving
Christmas Eve
Christmas Day
New Year's Eve

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