

SEPTAGE WASTE RECEIVING FACILITY OPERATING PLAN

Muskegon County Wastewater Management System



Location and Brief Description

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

8301 White Road

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 two outfalls and operating under NPDES Permit # MI 0027391. It consists of a land treatment facility encompassing 11,000 acres of aeration, settling, and irrigation areas. The system capacity is 42 million gallons per day. Currently, the plant receives approximately 26 million gallons per day of flow.

This facility's infrastructure consists of:

- Preaeration tanks and earth filter for odor control;
- 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). Generally, however, only one lagoon is in service at any time. The west aerated settling lagoon has its off-loading site located on the northeast corner. The east aerated settling lagoon has its off-loading site located on the northwest corner.

Hours of Operation

The hauled waste receiving station at the MCWMS is open 24 hours a day seven days per week. This includes holidays and the winter months. However, the roads on site will not be kept snow plowed beyond the normal working hours of 7:00 a.m. to 4:30 p.m.

Septage Receiving Procedure

As applicable 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. In emergency situations, the respective requirements may be waived by the State or the County.

A septage hauler with a Wastewater Discharge Permit or a governmental unit hauling septage will be provided with a Septage Discharge Card (SDC) for each vehicle it wishes to use in disposing of septage at the MCWMS. It is important to remember that a SDC is vehicle specific. The SDC is a proximity radio frequency card. It has vehicle and hauler specific information coded into it. A septage hauler wishing to dispose of waste will first proceed to the weigh station (see figure 2) upon entering the MCWMS. Once at the weigh station, they may proceed onto the weigh scale only when the traffic signal at the scale indicates a green light, and the vehicle in front of them has cleared the scale.

Once the readout from the weigh scale has stabilized, the driver will scan the SDC by waving it in front of the proximity card reader. The driver must indicate the product type of waste on the 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 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 SDC, they would proceed to the MCWMS Administration Building. The card can be replaced or their data can be manually entered into the system. There is a fee for replacing a card.

If there is a malfunction with the SDC, or the traffic gate arm does not go up, the driver should contact the MCWMS Administration Building at (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 septage without receiving prior authorization from a MCWMS representative.

After discharging the septage, the driver will proceed to the weigh station to be weighed again. The volume of septage 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 Diagram 1.

Figure 1



Septic hauler discharging at the off-loading site

Figure 2



Weigh Station

Categories of Septage Waste Accepted

The MCWMS will accept the following types of waste:

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. Sanitary sewage or cleanout residue transported by a Vactor truck owned by the County or other government units is also included in this category.

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.

Costs for Disposal at the MCWMS

The charge for septage waste accepted at the MCWMS is \$35 per 1,000 gallons discharged. The cost for a Wastewater Discharge Permit is \$35 for a hauler with a County business location and \$300 for a hauler located elsewhere. These charges are billed to the hauler. Under normal circumstances, these charges are reviewed only once prior to a new fiscal year and consequently may change as a result.

Cost recovery charges are also applied on a case-by-case basis if a hauler damages any property of the MCWMS or the hauler leaves excessive residuals at the off loading site which subsequently require cleaning by the MCWMS. The \$13 replacement charge for a proximity card is also a cost recovery charge.

At a minimum, the charges are summarized and invoiced monthly. All users will be assessed interest on any unpaid charges. That interest will commence to accrue on any unpaid balance sixty (60) days after submission of invoice by the County, and continue to accrue on any unpaid arrearage at the rate of one percent (1%) per month.

Septage Receiving Capacity

The MCWMS has 22.5 million gallons per day in additional hydraulic capacity available. The controlling factor in determining septage receiving capacity would be the organic loading.

The 7.4 million gallons of septage received in the year 2004 represents about 800,000 pounds of Total Suspended Solids (TSS). This number is determined by assuming that the average septage has approximately 13,000 mg/L of TSS. The 2004 septage quantity was only about 3% of the influent TSS.

Currently only six running aerators are providing sufficient dissolved oxygen in the settling cell into which septage is being discharged. It should be noted that the peak (benthic) sludge oxygen demand is June and July and six aerators have been sufficient to meet the oxygen demand for treatment. The aerated cell has the capability to have 22 aerators. Septage receiving could increase up to 15% on the incoming TSS without creating any dissolved oxygen issues. This translates into a flow of 34.5 million gallons per year or approximately 94,520 gallons per day. The MCWMS staff will continue to monitor the aerated cells and solids removal procedure for issues related to septage receiving.

Septage Receiving Service Area

The primary obligation of the MCWMS is to treat waste from Muskegon County. However, the septage receiving capacity at the MCWMS far exceeds the septage amount generated in Muskegon County. The MCWMS thus will accept out-of-county waste from locations within

the State of Michigan. Consequently, the service area is generally limited by the hauler's economic considerations for transporting the septage to the MCWMS.

The cleaning of trucks is permitted at the off-loading site. A wash station has been installed for the haulers' convenience. The hauler shall keep the off-loading site and storage building clean, and the hose should be left coiled up when done. The hauler must clean up any residuals on the off-loading site each time that he uses the site. At times when foam from the lagoon blows into the dumping area from a settling lagoon the wash station can be used to dissipate that foam.

Other Conditions for Receiving Septage

State Business License: Commercial septage haulers wishing to dispose of their waste at the MCWMS must with one exception have a State issued business license to remove and transport septic tank waste. The one exception to the having a license is where 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 wastewater treatment plant superintendent 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 part of 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 to be forwarded to the State. At the MCWMS the Director of Public Works and the Deputy Director of Public Works for Wastewater are the personnel authorized to sign such a statement.

Wastewater Discharge Permit: Commercial septage haulers wishing to dispose of their waste at the MCWMS must have a County issued Wastewater Discharge Permit to dispose of the septage. The Wastewater Discharge Permit is issued by the MCWMS. In addition to giving the owner or operator of a hauler's business permission to discharge septage, the permit provides the standards under which that permission is given. Copies of the policies of the MCWMS and the State's Part 117 rules are also included as attachments to that permit. Governmental units who discharge to the MCWMS via the sanitary sewer system and who haul septage are not required to obtain a Wastewater Disposal Permit. The application is available on the departmental website at <http://www.co.muskegon.mi.us/wwtf2.htm>. 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 to the applicant. The hours of operations for picking up a permit application are from 8:00 a.m. to 4:30 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. A permit will not be issued to a commercial septage hauler if the hauler does not have an appropriate State license(s) for hauling septage. If over the duration of the Wastewater Discharge Permit, the septage 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 of Public Works. The permit's duration is generally two years. At the discretion of the MCWMS, wastewater discharge permits shall be voidable upon cessation of septage 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 weigh station or the off-loading site. Having been notified, the hauler must not off-load until sampling personnel arrive. If the waste appears to be liquid industrial waste rather than septage, the sampling personnel shall have the authority to require the hauler to cease discharging. The waste will generally be analyzed for pH, biochemical oxygen demand, total suspended solids, chromium, copper, lead, and zinc. On a case-by-case basis, other pollutants may be selected. The basic sampling frequency will be two samples per week unless an alternate frequency is authorized by the Pretreatment Program personnel of the MDEQ. Additionally, if by mid year an individual hauler has not been selected by the random sampling procedure, it is the goal of the MCWMS to target that hauler. In this way, every hauler should be sampled at least once per year. Sampling is conducted for two purposes. One purpose is to be able to track the pollutant loading to the treatment works. The second is to assure that the septage hauler is not disposing of any waste other than septage.

Security: All haulers are subject to video surveillance at the weigh station and at the off-loading site. Surveillance is performed by three cameras triggered by motion sensors. The surveillance is to record improper disposal procedures by any hauler.

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 5.0 s.u. are the only numerical limits applicable to hauled septage 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 septage receiving procedures such as bypassing the weigh station, falsifying the information entered into the control panel, or disposing of septage anywhere other than at the hauled waste off-loading site, 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 might be involved, or in extreme situations, the haulers Wastewater Discharge Permit may be revoked. In the case that a hauler licensed only for septage waste has been found to be hauling industrial waste or if the hauler has been found to not have a current State septage haulers 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 waste 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 or where the hauler has not given prior notification to the POTW. Failure to provide advance notice of a transfer renders the wastewater discharge permit void as of the date of facility transfer.

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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
Good Friday
Memorial Day
Independence Day
Labor Day
Veteran's Day
Thanksgiving Day
Day after Thanksgiving
Christmas Eve
Christmas Day
New Year's Eve

Muskegon County Wastewater Management System (MCWMS) Hauled Waste Receiving Diagram

