



STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



JENNIFER M. GRANHOLM  
GOVERNOR

STEVEN E. CHESTER  
DIRECTOR

September 28, 2006

Mr. Tom High, Superintendent  
Leoni Township Septage Receiving Facility  
913 Fifth Street  
Michigan Center, Michigan 49254

Dear Mr. High:

SUBJECT: Septage Receiving Facility Operating Plan Approval  
Leoni Township Septage Receiving Facility

Review of the Leoni Township Septage Receiving Facility revised septage waste operating plan by the Department of Environmental Quality (DEQ) is complete. The operating plan is approved and meets the requirements outlined in Section 11715b of Part 117, Septage Waste Servicers, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

The receiving facility must operate in accordance with the approved plan. If a change in operations or conditions is anticipated, please file an amendment to the plan at least thirty (30) days prior to the proposed date for implementation.

Thank you for your continued environmental stewardship and service to those with on-site septic systems in and around your community and those who service them. If you have any questions regarding this matter, please contact me.

Sincerely,

Matthew Campbell  
Septage Waste Program Coordinator  
On-Site Wastewater Unit  
Drinking Water and Environmental Health Section  
Lansing Operations Division  
Water Bureau  
517-335-4178

mcc:ckp

cc: Mr. Steve Hall, Jackson County Health Department  
Mr. Jon Russell, DEQ

**OPERATING PLAN**  
Septage Receiving Facility  
**LEONI TOWNSHIP**  
**JACKSON COUNTY, MICHIGAN**

REVISED: MAY 2006



PREPARED BY:



**RECEIVED**  
MICH DEPT OF ENVIRONMENTAL QUALITY

JUL 14 2006

Water Division  
Construction Section  
WELL CONSTRUCTION UNIT

# LEONI TOWNSHIP SEPTAGE RECEIVING FACILITY

## OPERATING PLAN

### **1.1 General Description of the System**

The septage receiving station is located at the site of the Leoni Township Wastewater Treatment Plant (WWTP), 8401 Page Avenue, Grass Lake, Michigan. Leoni Township currently receives septage waste at this site and will continue to receive septage waste at this site in accordance with this operating plan.

Septage received at the site is discharged from the haulers through the usage of an offloading pipe connected to a mechanical screening device. Septage haulers connect to the offloading pipe through the usage of a quick-connect fitting. Once connected to the offloading pipe the septage haulers may discharge into the septage receiving system. Flows from the haulers are recorded through the usage of a flow meter located prior to a mechanical screening device. The mechanical screen is designed for a flow rate of 400 gallons per minute which allow haulers to offload in 4-6 minutes depending on the size of the truck. Following screening, the septage flows into a pump station from which it is either blended into the WWTP influent wastewater or sent to a large holding tank for equalization and/or testing.

### **1.2 Contact Information**

Operations of the Leoni Township WWTP are overseen by the contract operations firm Infrastructure Alternatives. Contact information for the plant superintendent is included below:

Tom High, Superintendent  
Leoni Township WWTP  
(517) 522-8445

### **1.3 Service Area**

The mandated service area for the Leoni Township Septage Receiving Station is the entire County of Jackson. Jackson County Ordinance No. 10 – Septage Waste Disposal Ordinance states that all septage waste collected in Jackson County by a licensed septage waste servicer shall be disposed of at the Leoni Township Waste Treatment Facility or other public septage waste disposal facility located in Jackson County.

In addition to the mandated service area defined above, Leoni Township's service area includes any areas outside of Jackson County that are within 15 radial miles of the receiving facility in accordance with Part 117 of the Natural Resources and Environmental Protection Act, 1994 PA.

### **1.4 Septage Categories**

There are three general categories of septage that receiving facilities may accept for treatment. Those categories can be described generally as follows:

1. Domestic Septage – the septage pumped from home septic tanks, recreational vehicles (RV), cesspool, portable toilet, type III marine sanitation device, or similar treatment works that receives only domestic sewage.
2. Domestic Treatment Plant Septage (solids) – means biosolids generated during treatment of domestic sewage in a treatment works and transported to a receiving facility or managed in accordance with a residuals management program approved by the Michigan Department of Environmental Quality.
3. Food Establishment Septage – material pumped from a grease interceptor, grease trap, or other appurtenance used to retain grease or other fatty substances contained in restaurant wastes and that is blended into a uniform mixture, consisting of not more than 1 part of that restaurant-derived material per 3 parts of domestic septage, prior to land application or disposed of at a receiving facility.

The Leoni Township facility only accepts domestic septage. Any load suspected of being another category shall be isolated in the sludge storage tank for testing. Loads found to be food establishment septage, domestic treatment plant septage, or containing any waste in violation of the sewer use ordinance shall be denied acceptance and the operator of the receiving station shall take necessary actions with the septage hauler responsible for the load to remove the waste and prevent further violations.

### **1.5 Hours of Operation**

Normal operating hours for the septage receiving station are 7:00am to 4:00pm on Monday thru Friday. At the discretion of Leoni Township, loads may also be received on weekends or after regular business hours on an on-call basis. Haulers are provided with a list of the on-call personnel phone numbers and the dates the employees cover.

### **1.6 Fee Structure**

The general fee structure for the septage receiving station is \$0.073 per gallon or \$73.00 per 1000 gallons. Additional fees apply for deliveries made after hours or on weekends. A \$15.00 per load fee is charged for after hours and Saturday deliveries, \$25.00 per load for Sunday deliveries, and \$35.00 per load for holiday deliveries. Billing for the loads is performed twice a month on the 1<sup>st</sup> and 16<sup>th</sup>.

### **1.7 Treatment of Septage**

Septage accepted at the receiving station is blended with the domestic wastewater and discharged to the Leoni Township Wastewater Treatment Plant. The WWTP is presently operating under a State of Michigan Department of Environmental Quality Surface Water Discharge Permit. This permit authorizes the discharge from the treatment facility to the surface waters of the state, provided that the permit effluent limitations, monitoring requirements and other conditions are complied with. The current permit expiration date is April 4, 2007.

### **1.8 Hydraulic and Organic Loading Capacity**

The impact of the septage loading on the ability of the WWTP to meet the existing permit conditions needs to be considered when accepting waste. A brief summary of this evaluation is included on the following page.

### 1.8.1 Hydraulic Loading

The average septage discharge to the WWTP for the year 2005 was approximately 12,000 gallons per day, or 0.012 million gallons per day (MGD). The design hydraulic capacity for the Leoni Township WWTP is 2.6 MGD. Based on this information, average septage flows represent approximately 0.5% of the hydraulic capacity of the plant. As a result, hydraulic loading would not be a concern until the plant was approximately at capacity. If flows were to approach this level, septage receiving would likely need to be halted until the treatment facilities were expanded.

Current influent flow measurements at the WWTP show that the average daily flow and peak monthly flow for 2006 to date are 1.92 MGD and 2.01 MGD, respectively. Additionally, design is currently underway on an expansion project at the Leoni Township WWTP that will increase capacity of the facility to 4.0 MGD. Construction of the new facility should be completed in late 2008. Based on evaluation of existing and projected flows, Leoni Township should be able to accommodate all hydraulic loading, including the septage flows, throughout the interim period until the new plant is online.

There are no wet weather operation concerns at the Leoni Township WWTP, as there is not a great amount of inflow and infiltration (I&I) in the collection system. The system is comprised largely of pressure sewer lines which are not typically subject to I&I. There is no history of combined sewer overflows (CSO) and/or sanitary sewer overflows (SSO) at the Leoni Township WWTP.

### 1.8.2. Organic Loading

Based on daily composite samples of the septage accepted throughout October of 2005, the BOD loading varies widely. However utilizing this data, the average BOD loading was calculated to be 3,328 mg/l. Using this information and the average septage flow of 12,000 gpd, the average daily organic loading was calculated to be approximately 333 lb/day. The design hydraulic capacity for the Leoni Township WWTP is 3903 lb/day. Based on this information, average septage flows represent approximately 8.5% of the organic capacity of the plant. If organic loading levels were to approach capacity, septage receiving would likely need to be halted until the treatment facilities were expanded.

*organic?*

An accurate analysis of the influent organic loading at the Leoni Township WWTP is not currently available due to concerns with the current sampling methods. The existing sample point is at a location that can lead to non-representative samples due to septage and/or recirculated flow. As a result, Leoni Township is currently in the process of placing a new sampler on the influent forcemain to the WWTP facility. Once the sampler is installed, the Township will be able to more accurately measure the existing organic loading at the facility. This information will be utilized to determine if any improvements are needed to the treatment plant prior to completion of the WWTP

expansion/modification project that will increase capacity to 4.0 MGD. It is the intention of Leoni Township to accommodate all flows, including septage, throughout the interim period.

### **1.9 Septage Receiving Restrictions**

While it is the intention of Leoni Township to maintain septage acceptance throughout the interim period until the WWTP expansion project is complete, careful attention should be paid to the organic loading of the facility. The organic loading of the WWTP should be reevaluated under each of the following conditions and a determination made if any restrictions and/or a moratorium on septage receiving is necessary:

1. Organic loading in excess of plant capacity – Once the new sampler is installed, the theoretical organic capacity of the WWTP will be recalculated. As flows approach this theoretical loading capacity, the system should be upgraded and/or the organic loading capacity reevaluated.
2. Permit Violations – In the event of a violation of the BOD discharge limit, the organic loading should be reevaluated.
3. Plant Expansions/Modifications – Organic loading capacity will be reevaluated and redefined as part of the expansion project currently under design and should be reevaluated again as part of any other modifications to the treatment process.

**Jackson Citizen Patriot**  
 214 S. Jackson St., Jackson, MI 49201  
**AFFIDAVIT OF PUBLICATION**

Printing Bill

State of Michigan,) ss  
 County of Jackson)

Bonita Tatar being duly sworn, deposes  
 and says that he/she is principal clerk of the Jackson Citizen Patriot; that  
 said Jackson Citizen Patriot is a newspaper published and circulated in  
 the County of Jackson, and the attached notice has been duly published in  
 said newspaper on the following dates:

05/12/2006

Customer Name:  
**LEONI TOWNSHIP**

*Bonita Tatar*

Subscribed and sworn to before me this     fifteenth    

day of     May     2006

Michael C. LaPorte Received Payment  
 NOTARY PUBLIC IN AND FOR THE COUNTY OF JACKSON, MICHIGAN

My Commission Expires Oct. 23, 2006

**PUBLIC NOTICE**  
**LEONI TOWNSHIP**  
 Septage Receiving Facility  
 Operating Plan  
 Please be advised that in accordance with Part 117 of the Natural Resources and Environmental Protection Act, 1994 PA 451, Leoni Township is submitting notice of the proposed operating plan for the septage receiving facilities located at the following address: Leoni Township Wastewater Treatment Plant, 8401 Page Avenue, Jackson, Michigan.  
 The septage receiving facilities at the Leoni Township WWTP currently receive septage waste, and will continue to receive septage waste in accordance with the approved operating plan. A copy of the proposed operating plan is available for review at the following location: Leoni Township Hall, 913 Fifth Street, Michigan Center, Michigan during the hours of 8:30 AM to 4:30 PM, Monday through Friday. Written comments regarding the proposed plan will be received through 4:30 pm, June 16, 2006 and should be sent to David J. Phelps, Leoni Township Supervisor, Leoni Township Hall, 913 Fifth Street, PO Box 375, Michigan Center, MI 49254.

Printing Bill

Folios	<u>    1    </u>	Times \$	<u>    81.12    </u>
		Affidavit \$	<u>    10.00    </u>
<u>48</u>	<del>XXXXXX</del>	Lines	<u>    91.12    </u>

**AFFIDAVIT OF PUBLICATION**  
**JACKSON CITIZEN PATRIOT**  
**JACKSON, MICHIGAN**

IN THE MATTER OF

Received and filed the \_\_\_\_\_

day of \_\_\_\_\_ A.D. 2006

## Septage Receiving Facility Checklist

Page 1

Name of Septage Receiving Facility:

**Leoni Twp. Septage Receiving Facility**

DEQ Reviewer: Matt Campbell

Review Date: September 25, 2006

Submitted by OMM on July 14, 2006

Address/location of Septage Receiving Facility:

8401 Page Avenue

Grass Lake, MI

Facility Contact: Mr. Tom High, Superintendent

Telephone Number: 517-522-8445

The following information must be submitted in the Operation Plan in order to receive DEQ approval:

<u>Requirement</u>	<u>Yes</u>	<u>No</u>	<u>Comments</u>
1. Location of septage RF.	X		
2. Hours of operation.	X		7 a.m. to 4 p.m. Monday - Friday
3. Categories of septage waste the RF will receive.	X		Only domestic septage is accepted.
4. If food establishment septage is accepted, how is the RF ensuring that the FES meets the 1:3 ratio mandated by law? (Not OP req't.)			Not accepted. If FES is brought in to the plant, plant personnel will work with the hauler to ensure it does not happen again.
5. Fee structure charged to hauler.	X		0.73 cents per gallon or \$73 per 1,000 gallon load. Additional fees apply to weekends and after hour deliveries.
6. Service area (septage acceptance) description of RF defined in detail.	X		By county ordinance, all of Jackson County and a portion of Washtenaw County captured by the 15 radial mile area.
7. Other conditions established by RF for receiving septage waste.	X		See operating plan for details.

# Septage Receiving Facility Checklist

Name of Septage Receiving Facility: **Leoni Township Septage Receiving Facility**

<u>Requirement</u>	<u>Yes</u>	<u>No</u>	<u>Comments</u>
8. Notice of proposed operation plan:			
a) Was it mailed to county HD and legislative body of each city, village and township located in whole or in part of the service area?		X	N.A. A county ordinance was passed in 2002 banning the land applicatio of septage in Jackson County naming the Leoni WWSL as the septage receiving facility.
b) Was it public noticed in the local newspaper?	X		Published May 12, 2006 in the Jackson Citizen Patriot. Not applicable. Leoni Township WWSL does not maintain a website.
c) Was it posted on the facility website?			
9. Did the notice contain the following?			
a. Statement that the RF proposed to or is currently receiving and will continue to receive septage waste for treatment.	X		
b. Statement in the notice that the proposed operating plan is available for review during normal work hours.	X		
c. A request for written comments on the proposed operation of the RF and the deadline for receipt of such comments, which shall not be less than 30 days after publication, posting, or mailing of the notice.	X		
d. Receiving facility capacity.			
I) Hydraulic capacity:	X		The plant capacity is 2.6 MGD. 2005 avg. discharge of septage was 12,000 GPD.

## Septage Receiving Facility Checklist

Name of Septage Receiving Facility: **Leoni Township Septage Receiving Facility**

<u>Requirement</u>	<u>Yes</u>	<u>No</u>	<u>Comments</u>
d. Receiving facility capacity.			3,903 lb/day total. Septage on avg. takes up 333 lb/day BOD of the plant capacity.
II) Organic capacity:	X		
*III) Wet weather operation considerations (CSO & SSO)		X	No concerns listed.
10. Other conditions established for the RF.	X		See operating plan for details.
*5. Fee structure - must be justified and reasonable in accordance with standard accounting practices.			
*6. This should be both written and illustrated on a map of the area. The service area information should include whether or not there is a county ordinance that also defines what they can or can't accept. It should also include whether or not they accept septage pumped outside of the service area.			
*9.(III). CSO-Combined Sewer Overflow and SSO-Sanitary Sewer Overflow.			



July 10, 2006  
3714 (310)

Mr. Matt Campbell  
Septage Waste Program Coordinator  
MDEQ – Water Bureau  
Constitution Hall, Second Floor – North  
P.O. Box 30273  
Lansing, MI 48909-7773

**RECEIVED**  
MICH DEPT OF ENVIRONMENTAL QUALITY

JUL 14 2006

Water Division  
WELL CONSTRUCTION UNIT

**Re: Septage Receiving Operating Plan  
Leoni Township, Jackson County, Michigan**

Dear Mr. Campbell:

The Leoni Township Septage Receiving Facility Operating Plan has been revised in accordance with your comment letter dated February 24, 2006. A copy of the revised Operating Plan is enclosed for your review and approval.

Please note that public notice of the revised Operating Plan was published in the Jackson Citizen Patriot newspaper in accordance with the requirements for proof of public notice. A copy of the affidavit of publication is enclosed with this letter that verifies publication of the notice.

As required, the proposed Operating Plan was available for public review and comment at the Leoni Township offices for a period not less than 30 days after publication of the notice. The notice was published May 12, 2006 and the deadline for public comment was 4:30 pm, June 16, 2006. No comments were received during the public comment duration, and as such, no further revisions have been made to the document.

Please feel free to call me if you have any questions or comments.

Respectfully,  
OMM ENGINEERING, INC.

Joel Davenport, P.E.

Encl.

cc: Jim Phelps, Leoni Township  
Tom High, Infrastructure Alternatives