

Application Type Renewal
 Facility Type Non-Municipal
 Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0104353
 APS ID 991424
 Authorization ID 1270018

Applicant and Facility Information

Applicant Name	<u>Lemick, Inc.</u>	Facility Name	<u>Oakleaf Estates MHP</u>
Applicant Address	<u>366 Center Road, Unit 301</u> <u>Brunswick, OH 44212</u>	Facility Address	<u>88 Mitchell Road</u> <u>West Middlesex, PA 15159</u>
Applicant Contact	<u>Daniel Inks</u>	Facility Contact	<u>Robert Baker</u>
Applicant Phone	<u>(440) 838-4868</u>	Facility Phone	<u>(440) 336-5711</u>
Client ID	<u>68044</u>	Site ID	<u>256057</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Shenango Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Mercer</u>
Date Application Received	<u>April 3, 2019</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>May 1, 2019</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of a NPDES Permit for an existing discharge of treated sewage.</u>		

Summary of Review

No changes to discharge quantity or quality are proposed as part of this permit renewal.

The current permit had a special condition in Part C.I.H. which required them to cease their stream discharge and connect to public sewer prior to the expiration date of the permit. The permittee is still allowed to discharge from this facility though, because the public sewage project, to which this was to connect to, has not been completed yet. On March 8, 2019, Department approved a revised construction schedule presented by Shenango Township, which sets the construction completion deadline to March 18, 2021 for their new treatment plant and collection system. The Department still expects the permittee to cease their surface discharge and connect to public sewer when it is made available to them.

There are currently no open violations listed in EFACTS for this permittee (2/19/2020)

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		Adam J. Pesek, E.I.T. / Environmental Engineering Specialist	
X		Justin C. Dickey, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.035</u>
Latitude	<u>41° 9' 54"</u>	Longitude	<u>-80° 24' 31"</u>
Quad Name	<u>Sharon East</u>	Quad Code	<u>0902</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to the Shenango River</u>	Stream Code	<u>---</u>
NHD Com ID	<u>130033515</u>	RMI	<u>0.29</u>
Drainage Area	<u>0.61 mi² (perennial conditions)</u>	Yield (cfs/mi ²)	<u>0.001 (dry); 0.0527 (perennial)</u>
Q ₇₋₁₀ Flow (cfs)	<u>0 (dry); 0.0321 (perennial)</u>	Q ₇₋₁₀ Basis	<u>USGS# 03102500</u>
Elevation (ft)	<u>1130</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>20-A</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>HABITAT ALTERATIONS, SILTATION</u>		
Source(s) of Impairment	<u>SOURCE UNKNOWN, URBAN RUNOFF/STORM SEWERS</u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u>7.12</u>	WQN 913 (2000-2004)	<u></u>
Temperature (°C)	<u>25</u>	Default (WWF)	<u></u>
Hardness (mg/L)	<u></u>		<u></u>
Other: NH ₃ -N	<u>0.1</u>	Default	<u></u>
Nearest Downstream Public Water Supply Intake	<u>PA American Water Company – New Castle District</u>		
PWS Waters	<u>Shenango River</u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u>4.7</u>	Distance from Outfall (mi)	<u>17.3</u>

Changes Since Last Permit Issuance: N/A

Other Comments:

Treatment Facility Summary				
Treatment Facility Name: Oakleaf Estates MHP				
WQM Permit No.		Issuance Date		
4396409		10/23/1996		
4300414		12/20/2000		
4371403		1971		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Activated Sludge	Hypochlorite	0.035
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.035	70	Not Overloaded	Gravity Thickening	Other WWTP

Changes Since Last Permit Issuance: N/A

Other Comments: This system was permitted as a two-train system with only on train currently installed and operating. Ultimate buildout design flow is 0.070 MGD.

Compliance History

DMR Data for Outfall 001 (from January 1, 2019 to December 31, 2019)

Parameter	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19
Flow (MGD) Average Monthly	0.03089	0.01798	0.02126	0.71771	0.0134	0.0274	0.045	0.001	0.001	0.001	0.001	0.001
pH (S.U.) Minimum	6.800	6.700	6.400	6.7	6.7	6.7	6.7	6.8	6.7	6.7	6.7	6.7
pH (S.U.) Maximum	7.300	7.400	7.200	7.1	7.4	7.1	7.4	7.7	7.1	7.2	7.1	7.3
DO (mg/L) Minimum	6.00	6.000	5.00	5.00	5.0	4.8	4.9	5	4	4.8	5	4
TRC (mg/L) Average Monthly	0.20000	0.20000	0.200	0.200	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CBOD5 (mg/L) Average Monthly	4.00	5.05	4.35	4.0	4.35	4.00	4.1	4	4.0	4	9.1	4
TSS (mg/L) Average Monthly	8.00	10.25	10.00	5.0	10.0	11.0	12	6.5	5.5	5	9	5
Fecal Coliform (CFU/100 ml) Geometric Mean	48.9897 9	2.44949		150.996 69	1286.85 664	1.00	25.4951 0	5.47723	19	8.124	219.089	1477.83 6
Total Nitrogen (mg/L) Average Quarterly	2.42			2.25			2.18			1.25		
Ammonia (mg/L) Average Monthly	0.30	0.46	1.05	0.33	0.44	0.73	0.95	0.70	0.32	0.30	0.30	0.60
Total Phosphorus (mg/L) Average Quarterly	1.54			1.13			0.491			0.287		

Comments: Based on a review of effluent data, the system is treating to a tertiary degree

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>0.035</u>
Latitude <u>41° 9' 54.00"</u>	Longitude <u>-80° 24' 31.00"</u>
Wastewater Description: <u>Sewage Effluent</u>	

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD ₅	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: Weekly average limits for CBOD₅ and TSS are not being applied in this permit due to the sampling frequency being less than 1/week in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Ammonia Nitrogen (5/01 – 10/31)	3.0	Average Monthly	WQAM 6.3
Ammonia Nitrogen (11/01 – 4/30)	9.0	Average Monthly	WQAM 6.3

Comments: A seasonal multiplier of "3" is applied for ammonia nitrogen. These were previously calculated limits that will be retained. No new modeling was conducted as it is expected that this system will cease discharging and connect to public sewer within this upcoming permit cycle.

The existing TRC IMAX limit of 1.2 mg/l was based on an old TRC Implementation Guidance for discharge to a dry/intermittent stream. No water quality modeling was conducted at perennial conditions because any TRC residual would be expected to dissipate prior to reaching a full flowing stream.

Best Professional Judgment (BPJ) Limitations

Comments: A dissolved oxygen limit of a minimum of 4.0 mg/l and monitoring for total nitrogen and total phosphorus is placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Anti-Backsliding

No Backsliding of limits is being proposed. Existing WQBELs will be retained.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the “NPDES Permit Writer’s Manual” (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite

Compliance Sampling Location: Outfall 001 (after disinfection)