



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 25, 2008

RE: LORAIN COUNTY
BRENTWOOD LAKE WWTP
NPDES NO. 3PH00024

Lorain County Commissioners
Administration Building
216 Middle Avenue
Elyria, OH 44035

Dear Commissioners:

On September 3, 2008, a Compliance Evaluation Inspection (CEI) was conducted on the Brentwood Lake Wastewater Treatment Plant (WWTP). Present during the inspection were Messrs. Jack Januzzi and Steve Canfield, of the Lorain County Sanitary Engineer's Office; Mr. John Sabo of the Lorain County Health Department; and this writer, of Ohio EPA. The inspection was conducted to ascertain the present operation and maintenance condition of the WWTP, and to evaluate its compliance with the terms and conditions of its NPDES permit.

At the time of the September 3rd inspection, the following observations were made:

- 1) The comminutor (Muffin Monster) was operating.
- 2) The extended aeration tank contents were medium brown, with slight brown foam in the corners of the tank. The suspended solids (MLSS) content appeared to be at a high concentration.
- 3) The settling tank contents were typical, and the mechanical flights were operating. The effluent trough was clean, and effluent from the settling tank was clear and free of solids.
- 4) The skimmer line from the settling tank was operating and returning clear water, and the return sludge line was operating and returning a medium brown water.
- 5) Tertiary filtration is accomplished by two drum filters, which were operational.
- 6) Final effluent is disinfected with chlorine gas, and dechlorination is accomplished with sodium bisulfite. Approximately 4 to 5 lbs/day of chlorine is used to disinfect the effluent.
- 7) The effluent is post aerated prior to discharge, and the effluent was clear, colorless, and free of foam or solids.
- 8) The aerated sludge holding tank was full of medium to dark brown sludge, and exhibited no odor.
- 9) A standby generator is located on site.

The last Compliance Evaluation Inspection (CEI) conducted at the Brentwood Lake WWTP was on June 21, 2007. Since the last CEI, the Brentwood Lake WWTP has reported the following NPDES Permit effluent violations in their monthly electronic Discharge Monitoring Reports (eDMR):

**BRENTWOOD LAKE WWTP
 NPDES PERMIT NO. 3PH00024
 EFFLUENT LIMIT VIOLATIONS
 (6/1/07 – 9/1/09)**

Parameter	Limit Type	Limit	Reported Value	Violation Date
Dissolved Oxygen	1D Conc	6.0	5.66	6/15/2007
Dissolved Oxygen	1D Conc	6.0	5.83	6/18/2007
pH	1D Conc	6.5	6.47	6/19/2007
Dissolved Oxygen	1D Conc	6.0	5.13	6/19/2007
Dissolved Oxygen	1D Conc	6.0	4.85	6/20/2007
pH	1D Conc	6.5	6.44	6/21/2007
Dissolved Oxygen	1D Conc	6.0	4.31	6/21/2007
Dissolved Oxygen	1D Conc	6.0	3.79	6/22/2007
Dissolved Oxygen	1D Conc	6.0	5.06	6/25/2007
Dissolved Oxygen	1D Conc	6.0	5.15	6/26/2007
pH	1D Conc	6.5	6.15	6/27/2007
Dissolved Oxygen	1D Conc	6.0	5.24	6/27/2007
pH	1D Conc	6.5	6.46	6/28/2007
Dissolved Oxygen	1D Conc	6.0	4.78	6/28/2007
Dissolved Oxygen	1D Conc	6.0	5.28	7/16/2007
pH	1D Conc	6.5	6.2	7/17/2007
pH	1D Conc	6.5	6.21	7/18/2007
pH	1D Conc	6.5	6.23	7/23/2007
pH	1D Conc	6.5	6.07	7/24/2007
pH	1D Conc	6.5	6.35	7/25/2007
pH	1D Conc	6.5	5.6	8/1/2007
pH	1D Conc	6.5	6.25	8/2/2007
Fecal Coliform	7D Conc	2000	10700	8/8/2007
pH	1D Conc	6.5	6.38	8/15/2007
Dissolved Oxygen	1D Conc	6.0	5.45	9/18/2007
Dissolved Oxygen	1D Conc	6.0	4.86	10/9/2007
Total Suspended Solids	7D Conc	18	18.5	10/22/2007
Total Suspended Solids	30D Conc	12	15.2	12/1/2007
Total Suspended Solids	30D Qty	9.1	10.2269	12/1/2007
Total Suspended Solids	7D Conc	18	27.55	12/8/2007
Total Suspended Solids	7D Qty	13.6	28.2338	12/8/2007
Total Suspended Solids	30D Conc	12	28.45	2/1/2008
Total Suspended Solids	7D Conc	18	91.65	2/1/2008
Total Suspended Solids	30D Qty	9.1	24.4829	2/1/2008
Total Suspended Solids	7D Qty	13.6	93.2351	2/1/2008
Total Suspended Solids	30D Qty	9.1	9.76164	3/1/2008

Parameter	Limit Type	Limit	Reported Value	Violation Date
Total Suspended Solids	7D Qty	13.6	17.3671	3/1/2008
Total Suspended Solids	7D Conc	18	21.8	6/8/2008
Total Suspended Solids	7D Qty	13.6	14.6587	6/8/2008
pH	1D Conc	6.5	6.08	7/21/2008
pH	1D Conc	6.5	6.41	7/22/2008
pH	1D Conc	6.5	6.31	7/23/2008
pH	1D Conc	6.5	6.36	7/24/2008
pH	1D Conc	6.5	6.15	7/30/2008
pH	1D Conc	6.5	5.6	7/31/2008
pH	1D Conc	6.5	6.47	8/7/2008
pH	1D Conc	6.5	3.73	8/12/2008
pH	1D Conc	6.5	6.21	8/28/2008

A review of the eDMRs for the same period also found the following monitoring frequency violations:

**BRENTWOOD LAKE WWTP
 NPDES PERMIT NO. 3PH00024
 FREQUENCY VIOLATIONS
 (6/1/07 – 9/1/09)**

Violation Date	Station	Parameter	Sample Frequency	Expected	Reported
6/2/2007	001	Flow Rate	1/Day	1	0
6/3/2007	001	Flow Rate	1/Day	1	0
6/4/2007	001	Flow Rate	1/Day	1	0
6/5/2007	001	Flow Rate	1/Day	1	0
6/6/2007	001	Flow Rate	1/Day	1	0
6/7/2007	001	Flow Rate	1/Day	1	0
6/8/2007	001	Flow Rate	1/Day	1	0
6/9/2007	001	Flow Rate	1/Day	1	0
6/10/2007	001	Flow Rate	1/Day	1	0
6/11/2007	001	Flow Rate	1/Day	1	0
6/12/2007	001	Flow Rate	1/Day	1	0
6/13/2007	001	Flow Rate	1/Day	1	0
6/14/2007	001	Flow Rate	1/Day	1	0
6/15/2007	001	Flow Rate	1/Day	1	0
6/16/2007	001	Flow Rate	1/Day	1	0
6/17/2007	001	Flow Rate	1/Day	1	0
6/18/2007	001	Flow Rate	1/Day	1	0
6/19/2007	001	Flow Rate	1/Day	1	0
6/20/2007	001	Flow Rate	1/Day	1	0
6/21/2007	001	Flow Rate	1/Day	1	0
6/22/2007	001	Flow Rate	1/Day	1	0
6/23/2007	001	Flow Rate	1/Day	1	0
6/24/2007	001	Flow Rate	1/Day	1	0

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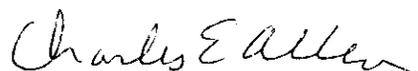
Violation Date	Station	Parameter	Sample Frequency	Expected	Reported
6/25/2007	001	Flow Rate	1/Day	1	0
6/26/2007	001	Flow Rate	1/Day	1	0
6/27/2007	001	Flow Rate	1/Day	1	0
6/28/2007	001	Flow Rate	1/Day	1	0
6/29/2007	001	Flow Rate	1/Day	1	0
6/30/2007	001	Flow Rate	1/Day	1	0
7/2/2007	001	Flow Rate	1/Day	1	0
7/3/2007	001	Flow Rate	1/Day	1	0
7/4/2007	001	Flow Rate	1/Day	1	0
7/5/2007	001	Flow Rate	1/Day	1	0
7/6/2007	001	Flow Rate	1/Day	1	0
7/7/2007	001	Flow Rate	1/Day	1	0
7/8/2007	001	Flow Rate	1/Day	1	0
7/9/2007	001	Flow Rate	1/Day	1	0
7/10/2007	001	Flow Rate	1/Day	1	0
7/11/2007	001	Flow Rate	1/Day	1	0
7/12/2007	001	Flow Rate	1/Day	1	0
7/13/2007	001	Flow Rate	1/Day	1	0
7/14/2007	001	Flow Rate	1/Day	1	0
7/15/2007	001	Flow Rate	1/Day	1	0
7/16/2007	001	Flow Rate	1/Day	1	0
7/17/2007	001	Flow Rate	1/Day	1	0
7/18/2007	001	Flow Rate	1/Day	1	0
7/19/2007	001	Flow Rate	1/Day	1	0
7/20/2007	001	Flow Rate	1/Day	1	0
7/21/2007	001	Flow Rate	1/Day	1	0
7/22/2007	001	Flow Rate	1/Day	1	0
7/23/2007	001	Flow Rate	1/Day	1	0
7/24/2007	001	Flow Rate	1/Day	1	0
7/25/2007	001	Flow Rate	1/Day	1	0
7/26/2007	001	Flow Rate	1/Day	1	0
7/27/2007	001	Flow Rate	1/Day	1	0
7/28/2007	001	Flow Rate	1/Day	1	0
7/29/2007	001	Flow Rate	1/Day	1	0
7/30/2007	001	Flow Rate	1/Day	1	0
7/31/2007	001	Flow Rate	1/Day	1	0
8/15/2007	001	Suspended Solids	2/Week	2	1
8/15/2007	001	Fecal Coliform	1/Week	1	0
8/2/2007	001	Flow Rate	1/Day	1	0
8/3/2007	001	Flow Rate	1/Day	1	0
8/4/2007	001	Flow Rate	1/Day	1	0
8/5/2007	001	Flow Rate	1/Day	1	0
8/6/2007	001	Flow Rate	1/Day	1	0
8/7/2007	001	Flow Rate	1/Day	1	0
8/8/2007	001	Flow Rate	1/Day	1	0
8/9/2007	001	Flow Rate	1/Day	1	0

Violation Date	Station	Parameter	Sample Frequency	Expected	Reported
8/10/2007	001	Flow Rate	1/Day	1	0
8/11/2007	001	Flow Rate	1/Day	1	0
8/12/2007	001	Flow Rate	1/Day	1	0
8/13/2007	001	Flow Rate	1/Day	1	0
8/14/2007	001	Flow Rate	1/Day	1	0
8/15/2007	001	Flow Rate	1/Day	1	0
8/16/2007	001	Flow Rate	1/Day	1	0
8/17/2007	001	Flow Rate	1/Day	1	0
8/18/2007	001	Flow Rate	1/Day	1	0
8/19/2007	001	Flow Rate	1/Day	1	0
8/20/2007	001	Flow Rate	1/Day	1	0
8/21/2007	001	Flow Rate	1/Day	1	0
8/15/2007	001	CBOD 5 day	2/Week	2	1
8/15/2007	601	Suspended Solids	1/Week	1	0
8/15/2007	601	CBOD 5 day	1/Week	1	0
11/22/2007	001	Suspended Solids	2/Week	2	1
11/22/2007	001	CBOD 5 day	2/Week	2	1
12/22/2007	001	Suspended Solids	2/Week	2	1
12/22/2007	001	CBOD 5 day	2/Week	2	1
1/1/2008	001	CBOD 5 day	2/Week	2	1
1/1/2008	001	Suspended Solids	2/Week	2	1
5/1/2008	001	Fecal Coliform	1/Week	1	0
8/8/2008	001	Suspended Solids	2/Week	2	1
8/8/2008	001	CBOD 5 day	2/Week	2	1

The County should continue with all efforts that will enable the Brentwood Lake WWTP to consistently meet its NPDES Permit limits. Please submit a report to this office detailing the reasons for the effluent numeric and frequency reporting violations.

If there are any comments or questions concerning this document, you may contact me at (330) 963-1110.

Respectfully,



Charles E. Allen
 Environmental Engineer
 Division of Surface Water

CEA/mt

File: MUNI/Lorain/BrentwoodLake P&C