



State of Ohio Environmental Protection Agency

Northeast District Office

**FILE COPY**

2110 East Aurora Rd.  
Twinsburg, Ohio 44087

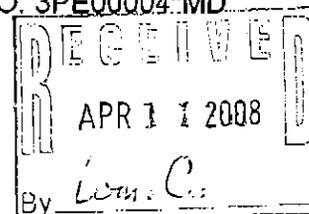
TELE: (330) 963-1200 FAX: (330) 487-0769  
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Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

February 26, 2008

RE: CUYAHOGA COUNTY  
CITY OF LAKEWOOD WWTP  
NPDES NO. OH0026018  
OEPA NO. 3PE00004\*MD

Mayor and Council  
City of Lakewood  
12650 Detroit Rd.  
Lakewood, OH 44107



Dear Mayor Fitzgerald and Council:

On February 12, 2008, a Compliance Evaluation Inspection (CEI) was conducted at the City of Lakewood wastewater treatment plant (WWTP). Present during the inspection were Mr. William Crute, representing the City of Lakewood, and this writer, of Ohio EPA. The purpose of the inspection was to evaluate the facility's compliance with National Pollutant Discharge Elimination System (NPDES) permit effluent limits, as well as the terms and conditions of the permit. Evaluated during the inspection were the treatment plant processes, effluent discharge quality, and general compliance with the intent of the permit.

At the time of the inspection the general operation and maintenance of the plant could be rated as satisfactory. All sewage treatment processes at the WWTP which are required to be operating were in operation. The Ultra Violet disinfection system was not in service, however, due to the fact that effluent disinfection is not required at this time of year.

Contents of the primary and final settling tanks were characteristic, and contents of both aeration tanks exhibited good color and air diffusion. Effluent from the final clarifiers was clear and free of visible foam.

The last Compliance Evaluation Inspection (CEI) conducted at the Lakewood WWTP was on January 24, 2007. In the period January 1, 2007, through February 1, 2008, the Lakewood WWTP reported the following NPDES permit effluent violations in their monthly operating reports (MORs):

**LAKWOOD WWTP  
NPDES PERMIT EFFLUENT NUMERICAL VIOLATIONS  
(JAN. 1, 2007 THROUGH FEB. 1, 2008)**

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2007	Phosphorus, Total (P)	30D Conc	1.0	1.02875	6/1/2007
July 2007	Phosphorus, Total (P)	30D Conc	1.0	1.03889	7/1/2007

Based upon MOR data submitted to Ohio EPA in SWIMS for the same period, there were some apparent violations of sampling and/or reporting frequencies for the following parameters. It is requested that a review of these apparent frequency violations be conducted, and a follow-up be made:

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**LAKWOOD WWTP**  
**NPDES PERMIT EFFLUENT FREQUENCY VIOLATIONS**  
**(JAN. 1, 2007 THROUGH FEB.1, 2008)**

Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/31/2007
Dec 2007	001	E. coli	1/Day	1	0	12/31/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/30/2007
Dec 2007	001	E. coli	1/Day	1	0	12/30/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/29/2007
Dec 2007	001	E. coli	1/Day	1	0	12/29/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/28/2007
Dec 2007	001	E. coli	1/Day	1	0	12/28/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/27/2007
Dec 2007	001	E. coli	1/Day	1	0	12/27/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/26/2007
Dec 2007	001	E. coli	1/Day	1	0	12/26/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/25/2007
Dec 2007	001	E. coli	1/Day	1	0	12/25/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/24/2007
Dec 2007	001	E. coli	1/Day	1	0	12/24/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/23/2007
Dec 2007	001	E. coli	1/Day	1	0	12/23/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/22/2007
Dec 2007	001	E. coli	1/Day	1	0	12/22/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/21/2007
Dec 2007	001	E. coli	1/Day	1	0	12/21/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/20/2007
Dec 2007	001	E. coli	1/Day	1	0	12/20/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/19/2007
Dec 2007	001	E. coli	1/Day	1	0	12/19/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/18/2007
Dec 2007	001	E. coli	1/Day	1	0	12/18/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/17/2007
Dec 2007	001	E. coli	1/Day	1	0	12/17/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/16/2007
Dec 2007	001	E. coli	1/Day	1	0	12/16/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/15/2007
Dec 2007	001	E. coli	1/Day	1	0	12/15/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/14/2007
Dec 2007	001	E. coli	1/Day	1	0	12/14/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/13/2007
Dec 2007	001	E. coli	1/Day	1	0	12/13/2007
Dec 2007	001	Fecal Coliform	1/Day	1	0	12/12/2007
Dec 2007	001	E. coli	1/Day	1	0	12/12/2007

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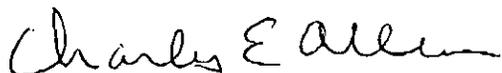
5. A new 1.5 meter wide sludge press was installed in September 2007, with a second identical press planned for installation this summer. Structural concrete improvements in the area of the second press need to be completed before installation of the second press can be made. New sludge chemical conditioning equipment was also installed with the new press.
6. The sludge press receives sludge containing approximately 5% solids, and with conditioning chemical addition and pressing, produces a sludge cake of approximately 20% solids. Upon installation of the second sludge press, performance testing will be conducted to optimize the press operation. Pilot studies demonstrated the potential of producing a sludge cake up to 24% solids content.
7. The city of Lakewood continues to haul its own sludge, transporting approximately 6 truckloads per week (at 20 wet tons) for disposal. The City has two tractors and three trailers for sludge hauling.
8. The hauled sludge is spread at approved sites in Medina, Huron, and Lorain Counties, by Valley Byproducts, with whom the City has a contract for spreading.
9. The City also has a 5 year contract with J & J Refuse for landfilling of sludge cake, in the event that land application cannot be conducted. J & J Refuse also hauls and disposes of grit and screenings generated at the WWTP (approximately 20 cubic yards per month).
10. The City's new NPDES permit, which went effective August 1, 2007, contains a new reporting code (Station 586) for sludge which may be landfilled instead of land applied (Station 581).
11. Five new RAS (Return Activated Sludge) pumps were delivered and installed in June / July 2007.
12. The Lakewood WWTP laboratory continues to analyze their own wastewater samples for CBOD, suspended solids, phosphorus, pH, ammonia, COD, and dissolved oxygen. The City has contracted with Water & Wastewater Labs, Inc., for cyanide and Total Kjeldahl Nitrogen (TKN).
13. Lab results for the most recent DMRQA study were all acceptable.
14. Wet Weather Stress Testing (WWST) on the Lakewood WWTP was completed, and a written summary was submitted to Ohio EPA. Review / comments are pending.
15. The Lakewood WWTP currently has two separate sources of backup electrical power. However, past experiences with the two sources found them to be not totally reliable, as there have been problems.

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16. The City has installed an emergency generator with enough capacity to run the entire WWTP, if needed. The generator has yet to be hooked up, however, and hookup is planned in the near future.
17. During the last inspection, deteriorating concrete was observed in the ceilings of some of the tunnels under the digesters, and also on the sides of the Number 1 and 2 final settling tanks. These areas were inspected and evaluated by an engineering firm, Arcadis, and were determined to be structurally sound. Some cosmetic concrete work is planned for the areas.
18. The City is rehabilitating the heat exchangers for the anaerobic digester.
19. Future work also planned for the anaerobic digester includes new controls, new sludge recirculation pumps, re-tubing of the heat exchanger, and replacement of methane gas meters.
20. Replacement of isolation gates in the aeration tanks is planned for this year.
21. All lamps in the Ultra Violet disinfection unit were replaced this past year. Replacement of the lamps is performed every 3 years.
22. An upgrade of the current SCADA system is planned for this upcoming year.
23. The City continues to work with the U.S. EPA (Region V), and the U.S. Department of Justice, on getting its Long Term Control Plan (LTCP) approved and implemented.

If there are any questions or comments regarding this correspondence, please contact this writer at (330) 963-1110.

Respectfully,



Charles E. Allen  
Environmental Engineer  
Division of Surface Water

CEA/mt

File: Muni/Lakewood/P&Cfile