



State of Ohio Environmental Protection Agency

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

October 28, 2008

RE: LORAIN COUNTY  
CITY OF NORTH RIDGEVILLE  
FRENCH CREEK WWTP  
COMPLIANCE EVALUATION INSPECTION  
(OH0044512/3PD00043)

Mayor and Council  
City of North Ridgeville  
7307 Abbe Road  
North Ridgeville, OH 44054

Dear Mayor and Council:

On October 1, 2008, a Compliance Evaluation Inspection (CEI) was conducted at the City of North Ridgeville French Creek wastewater treatment plant (WWTP). Present during the inspection were Messrs. Don Daley, Mark Francis, Lou Cover, and Brad Barnett, representing the City of North Ridgeville; Messrs. Ike Habib and Mike Marsh, of HB Engineers; Mr. John Sabo of the Lorain County Health Department; and Mr. Chris Moody and this writer, of Ohio EPA. The purpose of the inspection was to evaluate the facility's compliance with the terms and conditions of its NPDES permit.

Evaluated during the inspection were the treatment plant processes, effluent discharge quality, status of the sludge composting operation, and general compliance with the intent of the permit.

The last French Creek WWTP inspection was a CEI conducted on February 27, 2007. Since the February 27, 2007, inspection, the City of North Ridgeville has reported the following numerical effluent limits violations for the WWTP:

**FRENCH CREEK WWTP  
NUMERIC EFFLUENT VIOLATIONS  
PERMIT NO. 3PD00043  
(Feb. 1, 2007 – Sep. 1, 2008)**

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
April 2007	Dissolved Oxygen	1D Conc	6.0	5.9	4/22/2007
May 2007	Dissolved Oxygen	1D Conc	6.0	.8	5/19/2007
May 2007	Dissolved Oxygen	1D Conc	6.0	5.5	5/28/2007
June 2007	Dissolved Oxygen	1D Conc	6.0	5.7	6/3/2007
June 2007	Nitrogen, Ammonia (NH3-N)	7D Conc	1.5	1.89	6/22/2007
July 2007	Nitrogen, Ammonia (NH3-N)	7D Conc	1.5	1.64	7/1/2007
August 2007	Dissolved Oxygen	1D Conc	6.0	5.5	8/5/2007
September 2007	Phosphorus, Total (P)	30D Conc	0.67	.6755	9/1/2007
September 2007	Dissolved Oxygen	1D Conc	6.0	5.8	9/23/2007
October 2007	Phosphorus, Total (P)	30D Conc	0.67	.88136	10/1/2007
October 2007	Phosphorus, Total (P)	7D Conc	1.0	1.152	10/8/2007
October 2007	Phosphorus, Total (P)	7D Conc	1.0	1.154	10/15/2007
November 2007	Dissolved Oxygen	1D Conc	6.0	4.9	11/18/2007
January 2008	Dissolved Oxygen	1D Conc	6.0	5.7	1/1/2008

At the time of the inspection all treatment processes were in operation, and the general operation and maintenance of the plant could be rated as satisfactory. Visual observation of the effluent being discharged to French Creek found the effluent to be colorless, and it revealed no signs of floating debris, oil and grease, or high levels of solids. A slight foam was present within the mixing zone, but dissipated by the time it entered the main stream of French Creek.

The following items were discussed during the October 1<sup>st</sup> inspection:

- 1) Messrs. Daley and Francis were presented with the above list of final effluent violations. Mr. Daley indicated that the corresponding dates and violations would be reviewed, and comments made back to Ohio EPA.
- 2) The current status of the sludge compost operations was discussed. Mr. Moody indicated removal of the composted sludge was to already have been initiated. Mr. Daley stated the removal of the sludge would begin within the next month or so, and the old composted piles of sludge are to be hauled to a landfill for disposal. Kurtz Brothers has also been in conversation with Mr. Daley regarding the composted sludge.
- 3) Sludge currently being generated by the French Creek WWTP will be land applied upon demonstration that it meets Class B sludge criteria for Vector Attraction and Pathogen Reduction.
- 4) Mr. Daley indicated he still has interest in pursuing pelletization of sludge generated at the WWTP as a means of final disposal.
- 5) Mr. Moody briefly discussed the new sludge rules which are currently out for public comment. A report on his portion of the October 1<sup>st</sup> inspection will follow under separate cover.
- 6) The wet weather flow equalization tank emergency overflow structure project is structurally complete. However, the electrical work for the project will not be finished until the end of the year.
- 7) It was indicated that chlorination facilities were constructed to disinfect any flow which would be discharged via the flow equalization overflow structure, prior to combining with the fully treated final effluent, prior to discharge to French Creek.

Mr. Daley was informed that the French Creek NPDES Permit will need to be modified, adding a chlorine residual limit for the final effluent, when the fully treated flow is combined with the chlorinated overflow from the flow equalization tanks. The current NPDES Permit has no chlorine residual limit since Ultra Violet is utilized for effluent disinfection.

- 8) There have been no overflows of the flow equalization tanks in 2008, but one was last reported on March 15, 2007.
- 9) Repairs to an on-site electrical substation which were planned for the summer of 2008 have yet to be made. Talks with First Energy regarding timing of the project delayed the project until later this year.

- 10) Offices for employees in the pretreatment program are being relocated to the former maintenance building, and should be completed by the end of 2008.
- 11) There are 21 full time employees at the WWTP, working in two 10 hour shifts, 7 days per week. During the 4 hours of daily non coverage, an autodialer provides coverage and notification in case of problems. A SCADA monitoring system has recently been installed.
- 12) Effluent samples collected for analysis are analyzed by the French Creek WWTP lab and outside contracted labs.

In-house samples analyzed include the conventional parameters (pH, temperature, dissolved oxygen, suspended solids, CBOD, ammonia, and fecal coliform).

A contracted lab, First Technology of Cleveland, analyzes the heavy metals; mercury samples are analyzed by Jones & Henry labs; and composted sludge samples are analyzed by Bio-Check / Environmental Health Labs.

- 13) Mr. Cover is the new Pretreatment Coordinator for the French Creek WWTP, and is coming up to speed on the program. A Pretreatment Program inspection or audit has not been conducted on the program for several years, but should be forthcoming in the near future.

During the October 1<sup>st</sup> inspection, the following observations were made:

- 1) Two perforated plate preliminary screens were present, with one being in service. The two units are alternated on a monthly basis, and one unit is capable of providing treatment up to 25 MGD.
- 2) The new grit removal system was in operation, with contents being a typical turbid gray.
- 3) Grit and screenings are collected and sent to the BFI / Allied Waste landfill for disposal.
- 4) All 3 Complete Mix Tanks were in operation, and the contents were medium brown in color and were being well mixed. Complete Mix Tanks #1 and # 3 were rehabilitated since the last inspection. Complete Mix Tank #2 is to be rehabilitated next year.
- 5) The two Aqua Disk tertiary filters were online and in use. The # 2 Aqua Disk filter was rebuilt since the last inspection. The # 1 Aqua Disk filter is planned for rehab in the near future. The Aqua Disk filters backwash on a timed basis, approximately once every 4 hours, or when needed if the pressure head gets too high.

- 6) All 6 rapid sand filters were online and in use. The rapid sand filters work in parallel with the Aqua Disk tertiary filters.
- 7) The Ultra Violet disinfection system was in operation. Effluent disinfection is required from May 1<sup>st</sup> through October 31<sup>st</sup>.
- 8) All three steel aerobic digestion tanks were online and in use. Since the last inspection, the # 2 aerobic digester was out of service for a couple of months for repair of a sludge mixer.
- 9) Digested sludge is dewatered with a sludge centrifuge. The centrifuge is normally operated 4 days per week, approximately 16 to 20 hours per day.
- 10) An emulsion polymer is added to the sludge as a dewatering aid. Sludge with a solids content of approximately 2.5% enters the centrifuge, and exits with a solids content of 20 to 24%.
- 11) Existing sludge drying beds are not used in the normal sludge treatment scheme, but are used when emptying tanks for repair. Under drains in several of the drying beds are being repaired.

Should you have any questions or comments regarding the contents of this inspection report, please contact me at this office at (330) 963-1110.

Respectfully,



Charles E. Allen  
Environmental Engineer  
Division of Surface Water

CEA/mt