OhioEPA
State of Ohio Environmental Protection Agency

**Southeast District Office**

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

February 20, 2008

**Re:** Adams County
Village of Peebles
Compliance Inspection
0PB00069*FD
Correspondence (PWW)

Mr. Dean Bailey, Village of Administrator
Village of Peebles
34 South Nixon Avenue
Peebles, Ohio 45660

Dear Mr. Bailey:

On January 16, 2007, Tim Campbell, Aaron Wolfe and I conducted a compliance evaluation inspection at the Peebles Wastewater Treatment Plant (WWTP). Jim Gulley and Ronnie Rolfe represented the Village of Peebles and assisted us during the inspection. The purpose of the inspection was to determine if the village was meeting the terms and conditions set forth in its NPDES permit.

The following were concerns that arose during the inspection.

1. During a review of the laboratory at the WWTP, evaluation of the bench sheets indicated that the biochemical oxygen demand (BOD) tests were not being run properly. According to Standard Methods, the dissolved oxygen (DO) should drop by at least 2 mg/L during the digestion period and at least 1 mg/L should remain in the sample at the end of the digestion period. The bench sheets indicated that the required 2 mg/L drop in DO had not being met in any of the samples evaluated. Samples which do not meet the DO requirements shall be considered invalid and may not be considered when determining effluent concentrations. Changes in sample dilution and/or test procedure should correct the problem.

2. Mr. Gulley indicated that during wet weather periods he would shut down the oxidation ditches, allowing a flow-thru situation, to prevent the solids from being blown out into the clarifiers. This procedure is acceptable to prevent effluent violations, but attention must be paid to the oxidation reduction potential (ORP) levels in the oxidation ditches. As the ORP levels decrease in the oxidation ditches the denitrification process begins, but once the sludge becomes anaerobic, insufficient treatment is occurring. At which point, this technically becomes a system bypass. At the time of the inspection, Mr. Gulley had no way to determine when the ORP levels in the oxidation ditches were dipping to low and creating a bypass. If the village wishes to continue to run the WWTP in this way during wet weather, I recommend an ORP meter be purchased and installed in the oxidation ditches. An ORP meter will allow Mr. Gulley to maintain better process control of the oxidation ditches and prevent future bypasses.

An added benefit of a permanently installed ORP meter connected to the WWTP electronics is the capability to constantly allow the oxidations ditches to cycle between times of shut down and operation. The cycling process saves electricity by not constantly running the mixers and the cycling process provides better nutrient removal by utilizing the denitrification process.

3. Mr. Gulley mentioned that he would like to have peripheral wall baffle installed in the clarifiers. Peripheral wall baffles extend out and down at a 45 degree angle from the outside wall of the clarifier. The purpose of the baffle is to redirect the flow of water and solids back to the bottom of the clarifier during times of high flow. The redirection of solids helps prevent short-circuiting of the clarifiers and subsequent effluent violations. As these baffles are relatively unsophisticated, and easy to manufacture and install, the addition of peripheral wall baffles to your clarifiers would be an inexpensive modification with potentially dramatic improvements to the effectiveness of the WWTP during wet weather.

4. During the inspection, Inflow and Infiltration (I/I) issues were discussed and Mr. Gulley indicated that a significant source of I/I was from storm drains from the street connected to the sewer trunk main. He said the village could not afford to separate these street drains from that section of sewer main. Please provide any available financial justification for this decision including, but not limited to, engineering estimates, village sewer fund statements and average sewer rates.

5. During the period from June 2006 to present, the following permit limit violations were reported to the Ohio EPA. Please review theses violation and provide explanations where applicable.

| Station | Parameter | Limit Type | Limit | Reported Value | Violation Date |
|---|---|---|---|---|---|
| ***October 2006:*** | | | | | |
| 001 | CBOD 5 day | 30D Conc | 10 | 11.9 | 10/1/2006 |
| 001 | CBOD 5 day | 7D Conc | 15 | 16.2 | 10/1/2006 |
| 001 | CBOD 5 day | 30D Qty | 15.90 | 28.2 | 10/1/2006 |
| 001 | CBOD 5 day | 7D Qty | 23.85 | 46.9 | 10/1/2006 |
| ***January 2007:*** | | | | | |
| 001 | Nitrogen, Ammonia (NH3) | 30D Qty | 6.36 | 7.2 | 1/1/2007 |
| ***February 2007:*** | | | | | |
| 001 | Nitrogen, Ammonia (NH3) | 30D Qty | 6.36 | 8.31 | 2/1/2007 |
| 001 | Nitrogen, Ammonia (NH3) | 7D Qty | 9.54 | 14.2 | 2/15/2007 |
| ***November 2007:*** | | | | | |
| 001 | Nitrogen, Ammonia (NH3) | 30D Conc | 4.0 | 5.7 | 11/1/2007 |
| 001 | Nitrogen, Ammonia (NH3) | 7D Conc | 6.0 | 7.3 | 11/1/2007 |
| 001 | Nitrogen, Ammonia (NH3) | 30D Qty | 6.36 | 7.59 | 11/1/2007 |
| 001 | Nitrogen, Ammonia (NH3) | 7D Qty | 9.54 | 10.06 | 11/1/2007 |
| 001 | Nitrogen, Ammonia (NH3) | 7D Conc | 6.0 | 6.9 | 11/15/2007 |
| 001 | pH | 1D Conc | 9.0 | 74. | 11/24/2007 |
| ***December 2007:*** | | | | | |
| 001 | CBOD 5 day | 30D Qty | 15.90 | 18.79 | 12/1/2007 |

| Station | Parameter | Limit Type | Limit | Reported Value | Violation Date |
|---|---|---|---|---|---|
| 001 | Dissolved Oxygen | 1D Conc | 5.0 | 3.2 | 12/2/2007 |
| 001 | CBOD 5 day | 7D Qty | 23.85 | 32.01 | 12/8/2007 |

Violations also received during this period, but not included in this table are as follows:

- Final effluent DO concentrations ranging between 1.07 and 4.91 mg/L for the period of May 1, 2007 to May 31, 2007. The minimum allowable DO concentration, according to your NPDES Permit is 5.0 mg/L.

- Final effluent DO concentrations reported as "0" for the period of December 1, 2006 to December 31, 2006. The minimum allowable DO concentration, according to your NPDES Permit is 5.0 mg/L.

The following table contains reporting frequency violations. Please evaluate the following information and supply an explanation for the violations.

| Reporting Period | Violation Date | Parameter | Sample Frequency | Expected | Reported |
|---|---|---|---|---|---|
| ***Outfall 001:*** | | | | | |
| June 2006 | 6/1 - 6/30/06 | Flow Rate | 1/Day | 30 | 0 |
| July 2006 | 7/31/2006 | Chlorine, Total Residual | 1/Day | 1 | 0 |
| Oct. 2006 | 10/15/2006 | Nitrogen, Ammonia (NH3) | 2/Week | 2 | 0 |
| Oct. 2006 | 10/22/2006 | Nitrogen, Ammonia (NH3) | 2/Week | 2 | 0 |
| Oct. 2006 | 10/15/2006 | Fecal Coliform | 2/Week | 2 | 0 |
| Oct. 2006 | 10/22/2006 | Fecal Coliform | 2/Week | 2 | 0 |
| Oct. 2006 | 10/13 - 10/31/06 | Flow Rate | 1/Day | 19 | 0 |
| Oct. 2006 | 10/15/2006 | CBOD 5 day | 2/Week | 2 | 0 |
| Oct. 2006 | 10/22/2006 | CBOD 5 day | 2/Week | 2 | 0 |
| Oct. 2006 | 10/14 - 10/31/2006 | Chlorine, Total Residual | 1/Day | 18 | 0 |
| Oct. 2006 | 10/1/2006 | Oil and Grease, Freon | 1/Month | 1 | 0 |
| Nov. 2006 | 11/1/2006 | Phosphorus, Total (P) | 1/Month | 1 | 0 |
| Dec. 2006 | 12/1/2006 | Mercury, Total (Hg) | 1/Quarter | 1 | 0 |
| Oct. 2007 | 10/1/2007 | Phosphorus, Total (P) | 1/Month | 1 | 0 |
| Nov. 2007 | 11/1/2007 | Phosphorus, Total (P) | 1/Month | 1 | 0 |
| ***Outfall 601:*** | | | | | |
| Feb. 2007 | 2/2 - 2/28/2007 | Flow, Peak Rate | 1/Day | 26 | 0 |
| May 2007 | 5/3 - 5/31/2007 | Flow, Peak Rate | 1/Day | 28 | 0 |
| Aug. 2007 | 8/2 - 8/31/2007 | Flow, Peak Rate | 1/Day | 29 | 0 |
| Dec. 2007 | 12/1 - 12/31/2007 | Total Precipitation | 1/Day | 25 | 0 |
| Dec. 2007 | 12/2 - 12/31/2007 | Flow, Peak Rate | 1/Day | 29 | 0 |
| ***Outfall 801:*** | | | | | |
| Aug. 2006 | 8/1/2006 | Fecal Coliform | 1/Quarter | 1 | 0 |
| Dec. 2006 | 12/1/2006 | Nitrogen, Ammonia (NH3) | 1/Quarter | 1 | 0 |
| March 2007 | 3/1/2007 | Nitrogen, Ammonia (NH3) | 1/Quarter | 1 | 0 |
| April 2007 | 4/1/2007 | pH | 1/Month | 1 | 0 |
| June 2007 | 6/1/2007 | Fecal Coliform | 1/Quarter | 1 | 0 |

| Reporting Period | Violation Date | Parameter | Sample Frequency | Expected | Reported |
|---|---|---|---|---|---|
| ***Outfall 901:*** | | | | | |
| June 2006 | 6/1/2006 | Fecal Coliform | 1/Quarter | 1 | 0 |
| March 2007 | 3/1/2007 | Nitrogen, Ammonia (NH3) | 1/Quarter | 1 | 0 |
| April 2007 | 4/1/2007 | pH | 1/Month | 1 | 0 |
| June 2007 | 6/1/2007 | Fecal Coliform | 1/Quarter | 1 | 0 |

A copy of my inspection report is enclosed with this letter. Please respond to this letter by March 14, 2008. Should you have any questions, please feel free to contact me at (740) 380-5226.

Sincerely,

Patrick Hudnall
District Engineer
Division of Surface Water

PH/dh

Enclosure

c: Jim Gulley, Superintendent

**NPDES**
Compliance Inspection Report

## A. NATIONAL DATA SYSTEM CODING

| Permit No. | NPDES No. | Date | Inspection Type | Inspector | Facility Type |
|---|---|---|---|---|---|
| 0PB00069 | OH0026964 | January 16, 2008 | C | S | 1 |

## B. FACILITY DATA

| Name and Location of Facility Inspected | Entry Time | Permit Effective Date |
|---|---|---|
| Village of Peebles WWTP<br>195 Chautauqua Street<br>Peebles, Ohio 45660 | 9:00 | June 1, 2003 |
| | **Exit Time** | **Permit Expiration Date** |
| | 9:45 | May 31, 2008 |

| Name(s) and Title(s) of On-Site Representative(s) | Phone Number(s) |
|---|---|
| Jim Gulley, Operator | 937-587-2218 |
| **Name, Address and Title of Responsible Official** | **Phone Number** |
| Village of Peebles<br>34 South Dixon Ave<br>Peebles, Ohio 45660 | 937-587-3389 |

## C. AREAS EVALUATED DURING INSPECTION

| | | | | | |
|---|---|---|---|---|---|
| S | Permit | S | Flow Measurement | N/A | Pretreatment |
| S | Records/Reports | M | Laboratory | N/A | Compliance Schedules |
| M | Operations & Maintenance | S | Effluent/Receiving Waters | S | Self-Monitoring Program |
| S | Facility Site Review | S | Sludge Storage/Disposal | | Other |
| U | Collection System | | | | |

(S = Satisfactory; M = Marginal; U = Unsatisfactory; N = Not Evaluated)

## D. SUMMARY OF FINDINGS/COMMENTS (attach additional sheets if necessary)

See attached inspection letter

**Patrick Hudnall**, Inspector, Ohio EPA, Southeast District Office — Date: 2/22/08

**Timothy M Campbell**, Reviewer, Ohio EPA, Southeast District Office — Date: 2/25/08