



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

April 18, 2011

RE: ANDOVER WASTEWATER TREATMENT PLANT
NPDES PERMIT NO. 3PB00000*GD
ANDOVER VILLAGE, ASHTABULA COUNTY
COMPLIANCE EVALUATION INSPECTION

Mr. Joseph DiBell, Village Administrator
Village of Andover
P.O. Box 1267
134 Maple Street
Andover, OH 44003

Dear Mr. DiBell:

On April 14, 2010, a site inspection was conducted at the above referenced facility at 500 Russtik Drive Extension, Village of Andover, Ashtabula County. The inspection was conducted by John Schmidt of this office. You and Richard Mead, Plant Superintendent, represented the Village of Andover (Andover). The purpose of the inspection was to evaluate the facility's compliance status with respect to the terms and conditions of the facility's National Pollutant Discharge Elimination System (NPDES) permit. The last compliance inspection was conducted on April 8, 2010.

The system consists of screening, influent monitoring, wet well lift station, alum addition, diversion chamber with bar screen and oil and grease removal, fine bubble aeration, clarification, sand filtration, chlorination, post disinfection aeration, and dechlorination. Plant bypasses, when they occur, consist of screening, diversion to an aerated equalization basin prior to mixing with the plant effluent at the chlorine contact tank. Lime and caustic are available for pH adjustment if needed. Sludge management consists of aerobic digestion, dewatering with a belt filter press, with sludge land applied. Decant waters from the sludge process go through a sand filter prior to being returned to the headworks of the plant. The facility discharges to Wade Creek northeast of the facility. A 175 KW generator provides backup power for the entire facility.

Observations

Following are observations made during the inspection.

1. The design flow of plant is 500,000 gallons per day.
2. The overall condition of the treatment plant during this inspection was satisfactory with the plant maintained. Screenings and grit was containerized for disposal at a solid waste landfill.

3. The influent sampler is maintained at the proper temperature and collects a time proportional sample.
4. Aeration tanks were a medium brown color with good mixing, and an earthy odor. There was a moderate amount of foaming. The return sludge lines were operating at the time of the inspection. Effluent weirs and outlet channels are scrubbed weekly.
5. Clarifier effluent channels were clean; however the "v" notches appear to have accumulated an algal growth. Cleaning of clarifier effluent channels must include scrubbing of the weirs, including the "v" notches. Cleaning of weirs should occur on a weekly to bi-weekly basis. The effluent trough was reasonably clean and there was no scum around the effluent baffle or the trough.
6. The sand filter was just completing its backwash cycle at the time of the inspection, and floating debris was noted on the surface of the water. This material is skimmed off using a pool skimmer. Wastewater was observed percolating freely through the sand indicating that the beds were not clogged.
7. The final effluent sampler is maintained at the proper temperature and collects a time proportional sample.
8. The final discharge at Wade Creek was observed as acceptable visual quality. The upstream sample point was noted at the access road bridge over Wade Creek about 150 yards upstream and the downstream monitoring point about 100 yards downstream.
9. The WWTP laboratory performs monitoring of BOD, suspended solids, pH, temperature, dissolved oxygen, and chlorine, and ammonia nitrogen. Andover Village contracts with Microbac Laboratories of Meadville, PA for metals, oil and grease, nitrate-nitrite, low level mercury, bacteria (E. Coli and Fecal Coliform), phosphorus, and quality assurance samples from the WWTP laboratory. Microbac Laboratories and the Village of Andover both submit the data to Ohio EPA's electronic discharge monitoring report (e-DMR) system for the Village of Andover.

NPDES Permit Compliance Review

The Village of Andover operates the Andover Village wastewater treatment plant under NPDES Permit No. 3PB00000*HD. A review of the electronic discharge self-monitoring reports (eDMRs) received by Ohio EPA for the period March 1, 2010 through March 1, 2011 indicates apparent noncompliance of the terms and conditions of your NPDES

permit. Specific instances of noncompliance are as follows:

Limit Violations

The following limit violations were noted for the period reviewed:

| Station | Reporting Code | Parameter | Limit Type | Limit | Reported Value | Violation Date |
|---------|----------------|------------------------|------------|-------|----------------|----------------|
| 001 | 80082 | CBOD 5 day | 7D Conc | 18 | 36.135 | 3/8/2010 |
| 001 | 80082 | CBOD 5 day | 7D Qty | 34.1 | 104.629 | 3/8/2010 |
| 001 | 80082 | CBOD 5 day | 30D Con | 6.0 | 8.0525 | 5/1/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 10.145 | 5/1/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 10.015 | 5/8/2010 |
| 001 | 80082 | CBOD 5 day | 30D Con | 6.0 | 11.7216 | 7/1/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 14.58 | 7/1/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 13.81 | 7/8/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 11.95 | 7/15/2010 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 5.98 | 7/29/2010 |
| 001 | 80082 | CBOD 5 day | 30D Con | 6.0 | 9.73622 | 8/1/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 9.27 | 8/1/2010 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 5.9 | 8/6/2010 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 4.81 | 8/10/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 12.73 | 8/22/2010 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 4.45 | 8/31/2010 |
| 001 | 00610 | Nitrogen, Ammonia (NH3 | 30D Con | 1.2 | 1.94286 | 9/1/2010 |
| 001 | 00610 | Nitrogen, Ammonia (NH3 | 7D Conc | 1.8 | 6.8 | 9/1/2010 |
| 001 | 00610 | Nitrogen, Ammonia (NH3 | 7D Qty | 3.4 | 4.81301 | 9/1/2010 |
| 001 | 80082 | CBOD 5 day | 30D Con | 6.0 | 7.9865 | 9/1/2010 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 3.37 | 9/1/2010 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 2.99 | 9/2/2010 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 4.76 | 9/3/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 10.006 | 9/22/2010 |
| 001 | 80082 | CBOD 5 day | 30D Con | 6.0 | 7.6562 | 10/1/2010 |
| 001 | 00665 | Phosphorus, Total (P) | 30D Con | 1.0 | 1.4 | 10/1/2010 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 9.0 | 13.939 | 10/8/2010 |
| 001 | 00665 | Phosphorus, Total (P) | 30D Con | 1.0 | 1.2 | 11/1/2010 |
| 001 | 00610 | Nitrogen, Ammonia (NH3 | 30D Con | 6.0 | 12.05 | 1/1/2011 |
| 001 | 00610 | Nitrogen, Ammonia (NH3 | 30D Qty | 11.4 | 13.2519 | 1/1/2011 |
| 001 | 80082 | CBOD 5 day | 30D Con | 12 | 12.0112 | 1/1/2011 |
| 001 | 00665 | Phosphorus, Total (P) | 30D Con | 1.0 | 2.5 | 1/1/2011 |
| 001 | 00665 | Phosphorus, Total (P) | 30D Qty | 1.9 | 2.63058 | 1/1/2011 |
| 001 | 00610 | Nitrogen, Ammonia (NH3 | 7D Conc | 9.0 | 12.6 | 1/8/2011 |
| 001 | 00610 | Nitrogen, Ammonia (NH3 | 7D Conc | 9.0 | 16.05 | 1/15/2011 |
| 001 | 80082 | CBOD 5 day | 7D Conc | 18 | 22.37 | 1/15/2011 |
| 001 | 00300 | Dissolved Oxygen | 1D Conc | 6.0 | 5.76 | 1/20/2011 |

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| Station | Reporting Code | Parameter | Sample Frequency | Expected | Reported | Violation Date |
|---------|----------------|------------------------|------------------|----------|----------|----------------|
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/07/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/07/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/07/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/08/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/08/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/08/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/09/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/09/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/09/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/10/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/10/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/10/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/11/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/11/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/11/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/12/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/12/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/12/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/13/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/13/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/13/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/13/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/15/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/15/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/15/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/16/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/16/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/16/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/16/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/16/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/17/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/17/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/17/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/17/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/18/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/18/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/18/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/18/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/18/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/19/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/19/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/19/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/19/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/20/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/20/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/20/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/20/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/21/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/21/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/21/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/21/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/21/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/22/2010 |

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| Station | Reporting Code | Parameter | Sample Frequency | Expected | Reported | Violation Date |
|---------|----------------|-------------------------|------------------|----------|----------|----------------|
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/22/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/22/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/23/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/23/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/23/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/24/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/24/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/24/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/25/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/25/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/25/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/26/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/26/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/26/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/27/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/27/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/27/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/28/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/28/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/28/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/29/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/29/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/29/2010 |
| 581 | 70322 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/30/2010 |
| 581 | 70316 | Sludge Weight | 1/Day | 1 | 0 | 06/30/2010 |
| 581 | 70318 | Sludge Solids, Percent | 1/Day | 1 | 0 | 06/30/2010 |
| 001 | 31616 | Fecal Coliform | 2/Week | 2 | 1 | 09/08/2010 |
| 001 | 00610 | Nitrogen, Ammonia (NH3) | 2/Week | 2 | 1 | 09/15/2010 |
| 001 | 31616 | Fecal Coliform | 2/Week | 2 | 1 | 10/08/2010 |

To-date Ohio EPA has not received a written response to these violations. Part III, Item 12 of your NPDES permit requires you to provide a written explanation as to the why these frequency violations occurred, along with a resolution to avoid such occurrences in the future. Please provide the information.

If Andover feels some of Ohio EPA's reporting records are in error, you may wish to reenter this information through the eDMR system or mail your data to Ohio EPA DSW central office and request that the data be entered on your behalf. Ohio EPA's eDMR support staff may also be available to assist you in this matter. Emailing questions to James.Roberts@epa.state.oh.us is the quickest way to get a response if you have a specific question with the eDMR program or how to make corrections to what is reported in the eDMR program.

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Compliance Schedule Violations

The following compliance schedule violations were noted for the period reviewed.

| Permit Effective Date | Permit Expiration Date | Schedule Due Date | Completion Date | Event Code | Schedule Type | Schedule Milestone |
|-----------------------|------------------------|-------------------|-----------------|------------|---------------|--------------------------|
| 11/01/2010 | 10/31/2015 | 11/01/2010 | 04/12/2010 | ----- | Other | Cont. I/I elimination |
| 11/01/2010 | 10/31/2015 | 11/01/2011 | | 01299 | Other | PTI for EQ Basin |
| 11/01/2010 | 10/31/2015 | 05/01/2012 | | 03099 | Other | Start EQ construction |
| 11/01/2010 | 10/31/2015 | 11/01/2013 | | 04599 | Other | Complete construction |
| 11/01/2010 | 10/31/2015 | 07/01/2011 | | 95999 | Other | E Coli Status Report |
| 11/01/2010 | 10/31/2015 | 09/01/2011 | | ----- | Other | PTI for E Coli if Needed |
| 11/01/2010 | 10/31/2015 | 11/01/2011 | | 05699 | Other | Achieve E Coli Limits |
| 11/01/2010 | 10/31/2015 | 11/01/2011 | | ----- | Other | Mercury (Hg) Evaluation |
| 11/01/2010 | 10/31/2015 | 11/01/2011 | | ----- | Other | Hg PTI Mod if Needed |
| 11/01/2010 | 10/31/2015 | 11/01/2011 | | ----- | Other | Hg Variance if Needed |

Ohio EPA acknowledges that Andover is following the recommendations made by Smollen Engineering in its August 31, 2005 report, including relining sewers on West Main Street, requiring roof drain tie-ins to disconnect from the sanitary sewer system, and envisioned relining of sewers on South Main Street in 2010. Any proposals other than submitting a PTI for a new or expanded equalization basin must be completed and documented in removal of I/I from the plant influent prior to November 1, 2011. The frequency and duration of bypass events at the Andover WWTP cannot continue at their current rate. Please provide the report for how Andover will continue implementation of its I/I report, including a schedule for implementation of remaining tasks.

Other NPDES Violations

Bypass Duration and Frequency: Ohio EPA notes that the Village of Andover has had plant bypass events occur with ever increasing frequency. Some discussion during our site visit indicated that the source of some water may be from flooding sludge drying beds from the farm field to the south. In 2010, Andover installed a swale to divert some of the storm water runoff between the sludge drying beds and the farm field to ensure that precipitation contribution from storm events will be limited to the footprint of the sludge drying beds only. During the visit, Mr. Mead discussed additional controls, including the installation of yard drains to redirect storm water flow from the drying beds, as well as changes in operations to ensure that the plant does not bypass at the frequency it has done in the past.

Composite Sample Collection: Part II, Item F of your NPDES permit requires that composite samples be collected over a 24-hour period and proportionate in volume to the waste water flow rate at the time of sampling. Your sampler must be able to collect

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samples proportionate to the flow of the final effluent. Most composite samplers have provisions of collecting either time-weighted samples or flow proportionate samples, and flow proportionate sampling requires a signal from the flow meter. Please provide a schedule and documentation that both samplers have been converted from time-proportional to flow-proportionate sampling.

Based upon the inspection findings and the overall compliance record of the facility, the facility remains in substantial noncompliance, in particular due to the number and frequency of plant bypasses that have occurred. The above limit violations, code violations, frequency violations, and other violations should be explained, along with a resolution. Ohio EPA will continue to monitor this facility and its ability to comply with the terms and conditions of its NPDES permit.

Please inform this office, in writing, within 30 days of the date of this letter as to the actions we discussed that have been or will be taken to correct the above noncompliance or explanations if you believe the noncompliance issues noted are in error. Your response to this letter should include the dates that the actions have been or will be completed. Please be advised that past or present issues of noncompliance can continue as subjects of future enforcement actions by Ohio EPA.

If you have any questions or comments regarding this notification, please feel free to contact me at (330) 963-1175.

Respectively,



John M. Schmidt P.E., R.S.
Environmental Engineer
Division of Surface Water

JMS/mt

pc: Richard Mead, WWTP Superintendent, Village of Andover

File: Public WW/Andover Village WWTP/PC