



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

August 7, 2013

RE: MAHONING COUNTY
MILTON
GREEN ACRES CAMPGROUND
NPDES PERMIT NO. 3PR00221
SFY 2013 CEI

Mr. Andy Della Vecchia
Green Acres Campground
P.O. Box 176
Lake Milton, OH 44429

Mr. Della Vecchia

On July 18, 2013, this writer conducted an unannounced inspection of the wastewater treatment plant (WWTP) for Green Acres Campground. Attending the inspection was John Lubonivic from the Mahoning County Health Department. The intent of the inspection was to discuss actions that were being taken to bring the treatment plant into consistent compliance with the NPDES Permit. A review of the compliance record was also conducted as part of this inspection.

Observations:

1. The clarifier had some ashing on the surface; however, the area behind the effluent weir was free of scum or solids. The effluent weir was free of any solids and the area surrounding the weir was free of scum or floating solids.
2. The aeration tank had good color. We discussed the settling test that you periodically conduct on the mixed liquor in the aeration tank. You indicated that a mixed liquor volume in the settling test is targeted at approximately 450 ml. It was understood that the mixed liquor volume was at approximately 550 - 600 ml which is the target volume for hauling sludge from the plant. As we discussed, the ashing in the clarifier may have been the result of a relatively high solids concentration.

During the inspection, we discussed the possibility of using a lower mixed liquor volume of approximately 250 ml or 300 ml as a target, and using 450 ml as the maximum MLSS concentration. This lower target concentration may help with less ashing in the clarifier between sludge hauling events. In addition, we talked about hauling sludge every two weeks during your peak season in order to maintain a steady concentration of solids in the system. Consistent wasting of sludge from the aeration system is critical to maintaining compliance with the NPDES Permit limits. You indicated that you would discuss this practice with the Ohio EPA compliance assistance personnel.

3. The aerated sludge holding tank was full at the time of the inspection. You stated that the hauling company was contacted to remove sludge from the system. It was understood that not only would sludge from the holding tank be removed; but, some mixed liquor

would also be taken out of the aeration tank to lower the Mixed Liquor Suspended Solids (MLSS) concentration. This is a good practice to immediately reduce the solids content of the system.

4. During the inspection, you stated that the alkalinity was being measured in the aeration tank multiple times per week. A surplus of alkalinity in the aeration tank is necessary to convert ammonia to nitrites and nitrates. You provided results of the alkalinity testing to show that you are taking steps to maintain the alkalinity concentration at approximately 200 mg/l. Adjusting and maintaining the alkalinity at 200 mg/l appears to have improved ammonia removal in the aeration tank.
5. The east sand filter was clean with no sludge deposition. All wastewater flow was being directed to the west filter. The west filter was ponded with approximately three to four inches of water. You indicated that you were preparing to switch wastewater flow to the east filter to allow the west filter to rest before cleaning and raking. The sides of the filters were in excellent condition with no cracking of the walls being evident.
6. We discussed concerns you had regarding analytical results for ammonia. You indicated that testing at the clarifier effluent weir using a Hach kit showed the ammonia concentration below the NPDES Permit limit. However, analytical results from your contract lab identified violations for ammonia in samples collected after disinfection on the same day.

During the inspection we talked about how sludge deposits on the filters can affect the effluent ammonia concentration. It was recommended that the filters be switched more frequently and that samples be collected for ammonia analysis on the same day from both the clarifier and after disinfection. It is also recommended that if there are questions about the contract lab, Green Acres should take split samples and send the second sample to a second contract lab. This is standard practice to improve quality assurance of analytical results.

7. You stated that during heavy storms in 2013, the WWTP did not experience the peak flows that would previously wash solids from the plant. It appears that efforts taken by you over the past several years to eliminate clear water from the collection system have been successful. Reducing clear water intrusion into the collection system is one of the most significant actions that can be taken to improve operations at the treatment system.
8. The trash trap was inspected to identify a turn-down elbow you recently placed on the outlet from the tank. It was explained that there was previously no elbow on the outlet pipe, and that a significant amount of trash was entering the aeration tank.
9. You stated that the aerators were recently upgraded to fine bubble diffusers. The aeration tank had good mixing from the new system. Fine bubble diffusers will increase oxygen transfer to the MLSS.

A compliance review was conducted for the period covering June 1, 2012 through June 30, 2013. The results of the review are provided on page 5 of this report. The primary pollutant of concern is ammonia. As discussed above, it is understood that Green Acres is working with the Ohio EPA Compliance Assistance Unit to address the ammonia issue. Efforts to control

alkalinity and the Mixed Liquor Suspended Solids concentration are being taken to bring the plant into consistent compliance with the ammonia limits.

In addition to ammonia, bacteria and residual chlorine appears to also be a concern for compliance. Violations for these two parameters may be addressed by balancing the disinfection system to ensure that tablets are in place and that they are in contact with the treated wastewater at all times. The system should be checked daily to ensure that disinfecting tablets are in contact with the waste stream.

You may contact this office at (330) 963-1251 or at john.kwolek@epa.ohio.com if you have any questions regarding this inspection report.

Respectfully,



John Kwolek
District Engineer
Division of Surface Water

JK/cs

cc. John Lubonivic, Mahoning County Health Department.

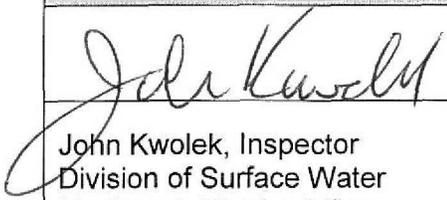
NPDES Compliance Inspection Report

| SECTION A: NATIONAL DATA SYSTEM CODING | | | | |
|--|------------|-----------------|---------------------|----------------------------|
| Permit # | NPDES # | Inspection Type | Inspector | Facility Type |
| 3PR00221 | OH0128350 | CEI | S | |
| Inspection Date | Entry Time | Exit Time | Notice of Violation | Significant Non-Compliance |
| 7/17/2013 | | | Yes | Yes |

| SECTION B: FACILITY DATA | |
|---|------------------------|
| Name and Location of Facility Inspected | Permit Effective Date |
| Green Acres Campground | 11/1/2011 |
| | Permit Expiration Date |
| | 10/31/2016 |
| Name(s) and Title(s) of On-Site Representatives | Phone Numbers |
| | |
| Name and Title of Responsible Official | Phone Number |
| Andy Dellavecchia, Owner | (330) 538-2194 |

| SECTION C: AREAS EVALUATED DURING INSPECTION | | |
|--|--------------------------|--|
| Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated | | |
| U | NPDES Compliance | <i>Entity in Significant Noncompliance</i> |
| S | Operations & Maintenance | <i>Owner is taking steps to address noncompliance.</i> |
| S | Facility Site Review | <i>Facility appears well maintained.</i> |
| N | Collection System | |
| S | Flow Measurement | <i>Hour meters on dosing pumps.</i> |
| M | Receiving Waters | |
| N | Laboratory | |

Comments:

| Signatures | |
|---|--------|
|  | 8/8/13 |
| John Kwolek, Inspector Division of Surface Water Northeast District Office | Date |

Compliance Data for Green Acres Campground between 6/1/2012 to 7/1/2013

Summary

Permit Effluent Limit Violations: 18
 Permit Effluent Code Violations: 0
 Permit Effluent Frequency Violations: 0
 Significant Violation: Yes

| Limit Violations | | | | | | |
|------------------|---------|-------------------------|------------|--------|----------------|----------------|
| Reporting Period | Station | Parameter | Limit Type | Limit | Reported Value | Violation Date |
| June 2012 | 001 | Nitrogen, Ammonia (NH3) | 30D Conc | 2.0 | 4.5 | 6/1/2012 |
| June 2012 | 001 | Nitrogen, Ammonia (NH3) | 7D Conc | 3.0 | 4.5 | 6/8/2012 |
| July 2012 | 001 | Dissolved Oxygen | 1D Conc | 6.0 | 5.3 | 7/11/2012 |
| July 2012 | 001 | Dissolved Oxygen | 1D Conc | 6.0 | 5.9 | 7/25/2012 |
| August 2012 | 001 | Nitrogen, Ammonia (NH3) | 30D Conc | 2.0 | 30.25 | 8/1/2012 |
| August 2012 | 001 | Nitrogen, Ammonia (NH3) | 30D Qty | 0.0379 | .22899 | 8/1/2012 |
| August 2012 | 001 | Nitrogen, Ammonia (NH3) | 7D Conc | 3.0 | 30.25 | 8/8/2012 |
| August 2012 | 001 | Nitrogen, Ammonia (NH3) | 7D Qty | 0.0568 | .22899 | 8/8/2012 |
| May 2013 | 001 | E. coli | 30D Conc | 126 | 420. | 5/1/2013 |
| May 2013 | 001 | Chlorine, Total Residu | 1D Conc | 0.038 | .05 | 5/15/2013 |
| May 2013 | 001 | E. coli | 7D Conc | 284 | 420. | 5/22/2013 |
| June 2013 | 001 | Dissolved Oxygen | 1D Conc | 6.0 | 5.8 | 6/26/2013 |
| June 2013 | 001 | Chlorine, Total Residu | 1D Conc | 0.038 | .07 | 6/12/2013 |
| June 2013 | 001 | Chlorine, Total Residu | 1D Conc | 0.038 | .05 | 6/26/2013 |
| June 2013 | 001 | Nitrogen, Ammonia (NH3) | 30D Conc | 2.0 | 6.1 | 6/1/2013 |
| June 2013 | 001 | Nitrogen, Ammonia (NH3) | 7D Conc | 3.0 | 6.1 | 6/8/2013 |
| June 2013 | 001 | Nitrogen, Ammonia (NH3) | 30D Qty | 0.0379 | .04618 | 6/1/2013 |
| June 2013 | 001 | E. coli | 30D Conc | 126 | 180. | 6/1/2013 |

| Compliance Schedule Milestones | | | | | |
|--------------------------------|----------|-----------------|------------|---------------|----------------------------|
| Schedule Date | Due Date | Completion Date | Event Code | Schedule Type | Schedule Milestone |
| May 2013 | | | 5599 | Construction | Operational Level Attained |

SECTION D: PERMIT VERIFICATION

- (a) Correct name and mailing address of permittee Y
- (b) Correct name and location of receiving waters Y
- (c) Products and production rates conform with permit application N/A
- (d) Flows and loadings conform with NPDES permit..... N/A
- (e) Treatment processes are as described in permit application Y
- (f) New treatment process added since last inspection N
- (g) Notification given to State of new, different or increased discharges N/A
- (h) All discharges are permitted Y
- (i) Number and location of discharge points are as described in permit Y

Comments:

SECTION E: COMPLIANCE

- (a) Any significant violations since the last inspection Y
- (b) Permittee is taking actions to resolve violations..... Y
- (c) Permittee has a compliance schedule Y
- (d) Permittee is meeting compliance schedule..... N

Comments:

SECTION F: OPERATION AND MAINTENANCE

- (a) Standby power available N
 If yes, what type?
- (b) Adequate alarm system available for power or equipment failures N
- (c) All treatment units in service other than backup units Y
- (d) Wastewater Treatment Works classification A
- (e) Operator of Record holds unexpired license of class required by Permit.....
 Class held: 3
- (f) Routine and preventative maintenance scheduled and performed Y
- (g) Any major equipment breakdown since last inspection..... N
- (h) Any plant bypasses since last inspection..... N
- (i) Any hydraulic or organic overloads since last inspection Y

Comments:

SECTION G: SLUDGE MANAGEMENT

- a) Sludge management plan (SMP) last audited by Ohio EPA:
Audit Date:
- b) Sludge adequately disposed Y
Method: **Hauled to POTW**
- c) Is sludge disposal contracted Y
Name: **Tom's Septic Service**
- d) Has amount of sludge generated changed significantly N
- e) Adequate sludge storage provided at plant Y

Comments:

SECTION H: SELF-MONITORING PROGRAM

- a) Primary flow measuring device operated and maintained Y
Type of device: **Hour meters on dosing pumps**
- b) Calibration frequency adequate Y
Date of last calibration: N/A
- c) Secondary instruments operated and maintained N/A
- d) Flow measurements equipment adequate to handle full range of flows Y
- e) Actual flow discharged is measured Y
- f) Parameters and sampling frequency agree with permit Y
- g) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e. continuous monitoring instrumentation, calibration and maintenance records) Y

Comments: