



OHIO *moving forward*

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**Certified Mail #91 7108 2133 3932 1838 1768**

July 31, 2013

Tiffany Jenkins, P.E.  
Delaware County Sanitary Engineer  
Delaware County Regional Sewer District  
50 Channing Street  
Delaware, OH 43015

**NOTICE OF VIOLATION**

**Re: Northstar Water Reclamation Facility  
NPDES Permit 4MP00007/ OHLANDAPP  
Reconnaissance Inspection  
Delaware County**

Dear Ms. Jenkins:

This correspondence serves as **Notice of Violation** for Significant Non-Compliance with the permit limits contained in the Land Application Management Plan issued to the Northstar Water Reclamation Facility in Delaware County, Ohio.

On June 26, 2013, a Reconnaissance Inspection was conducted at the Northstar Water Reclamation Facility. Present for the inspection were Mark Chandler, Corey Smith and Brian Keener representing the Delaware County Division of Environmental Services and Kelly Thiel and myself of the Ohio EPA, Central District Office, Division of Surface Water.

The purpose of the inspection was to evaluate compliance with the terms and conditions of the effective Land Application Management Plan (LAMP) and to evaluate the operation and maintenance of the plant. At the time of the inspection, several concerns were raised in the following areas:

**Significant Non-Compliance** - The plant is currently in Significant Non-compliance (SNC) for violations of the total inorganic nitrogen limits contained in the LAMP. A facility is placed in SNC when limits for conventional parameters are exceeded by 40% in any two months in a six month period. In order to be removed from the SNC list, the county must comply with all total inorganic nitrogen limits for three consecutive months. Failure to comply with the terms of conditions of the LAMP is a violation of Ohio Administrative Code (OAC) 3745-42-13.

**Groundwater Monitoring** - The effective LAMP requires semi-annual groundwater monitoring at six groundwater monitoring wells. To my knowledge, background ground water monitoring was performed in 2005-2006 but no additional information has been submitted since that data was collected. The LAMP requires that semi-annual sampling be performed in the months of June and December. **Please be advised that escalated enforcement action will be initiated, which may include a financial penalty, if the County fails to conduct groundwater sampling in December 2013 and any other required semi-annual event thereafter until the expiration date of the LAMP.** Failure to comply with the terms of conditions of the LAMP is a violation of Ohio Administrative Code (OAC) 3745-42-13.

**Plant Repairs** - Many of the treatment units (e.g. aeration tanks, centrifuge, RAS and WAS pumps) at the plant are in a state of disrepair since the plant sat idled for several years following the completion of construction. The county anticipates that all of the necessary repairs will be completed before the bond on the plant expires in November. The County is currently withholding sewer taps to expedite the repair process. Please notify this office once all of the repairs are completed. Failure to maintain the plant in proper working order is a violation of (OAC) 3745-42-13

Please refer to the Summary of Findings and Comments section of this report for additional information regarding the inspection. If you have any questions or comments concerning the enclosed inspection report, please contact me at (614) 728-3848 or e-mail at [mike.sapp@epa.state.oh.us](mailto:mike.sapp@epa.state.oh.us).

Sincerely,



Michael Sapp  
Compliance and Enforcement Unit  
Division of Surface Water  
Central District Office

ec: Michael Sapp

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
4MP00007	OHLANDAPP	RI	S	Public
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
6/26/2013	1:00 PM	2:45 PM	Yes	Yes

SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
Northstar Water Reclamation Facility Wilson Road between S. Galena Rd and Carter's Corner Rd. Berkshire and Kingston Townships, Delaware County	4/1/2013
	Permit Expiration Date
	10/31/2017
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Mark Chandler, Operations Manager Cory Smith, Operations Supervisor Brian Keener, Plant Operator	(740) 549-1906 (937) 243-7413
Name and Title of Responsible Official	Phone Number
Tiffany Jenkins, Director of Environmental Services	(740) 833-2240

SECTION C: AREAS EVALUATED DURING INSPECTION		
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated		
U	NPDES Compliance	Significant Non-compliance with total inorganic nitrogen limits
S	Operations & Maintenance	
M	Facility Site Review	Several treatment units not functional.
S	Collection System	
S	Flow Measurement	
NA	Receiving Waters	
S	Laboratory	

Comments:

Signatures	
 7/16/13	 7/17/13
Michael Sapp, Inspector Compliance & Enforcement Division of Surface Water District Office	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water District Office

## Compliance Data for Northstar Water Reclamation Facility between 4/1/2013 to 6/1/2013

### Summary

Permit Effluent Limit Violations: 2

Permit Effluent Code Violations: 0

Permit Effluent Frequency Violations: 9

Compliance Schedule Violations: 0

Limit Violations						
Reporting Period	Location	Parameter	Limit Type	Limit	Reported Value	Date
April 2013	601	Nitrogen, Inorganic, T	30D Conc	10	208.57	4/1/2013
May 2013	601	Nitrogen, Inorganic, T	30D Conc	10	175.58	5/1/2013

**ADDITIONAL INFORMATION**  
**Northstar Water Reclamation Facility**  
**4MP00007**

The Northstar Water Reclamation Facility has a design treatment capacity of 400,000 gpd. Wet stream process provided at the facility includes an influent grinder unit, static screens, flow equalization, extended aeration biological treatment with pulse-air mixing, clarification, rapid sand filtration, ultraviolet disinfection, effluent pump station and treated effluent storage. Solids handling facilities consist of aerobic digestion, sludge storage followed by dewatering with a centrifuge. Treated effluent is stored in a 73 million gallon effluent storage impoundment, providing 183 days storage, before it is land applied on the Northstar Golf Course.

1. At the time of the inspection, the following general observations were made with respect to the operational practices at the plant:
  - The plant is currently batch treating wastewater through the plant once a sufficient accumulation of wastewater is present in the flow equalization tanks. The plant has averaged 4-5 discharges per month since January 1, 2013.
  - At present, the only flow contributed to the plant comes from the golf course clubhouse, a workout facility and several condominiums.
  - The average flow associated with the batch discharges is 62,000 gpd.
  - The aeration blowers are operated in an on/off mode of operation (90 minutes on followed by a 30 minute off cycle).
  - Influent flows are measured using a magmeter on the 16" force main to the plant headworks. The pump station associated with the influent force main is not in the SCADA system. Effluent flows are measured with an ultrasonic unit over a parshall flume.
  - The two Rotork RAS pumps were not functional at the time of the inspection.
  - Each aeration train consists of a series of four tanks. The first and third tank in each train is equipped with pulse-air mixers for mixing. The mixers are exercised twice a week.
  - The plant is equipped with a chemical feed system to feed ferric chloride for nutrient removal.
  - The sludge centrifuge was not functional at the time of the inspection.
  
2. Many of the treatment units at the plant are in a state of disrepair since the plant sat idled for several years following the completion of construction. During the inspection, several contractors were present at the plant working on repairs. The county anticipates that all of the necessary repairs will be completed before the bond on the plant expires in November. The County is currently withholding sewer taps to expedite the repair process. In mid-July, the county will haul wastewater from the main pump station to the Alum Creek plant so that repairs can be made to the aeration tanks. Joints in the aeration tank walls need resealed to preclude groundwater intrusion.

3. The plant is currently in Significant Non-compliance (SNC) for violations of the total inorganic nitrogen limits contained in the LAMP. A facility is placed in SNC when limits for conventional parameters are exceeded by 40% in any two months in a six month period. In order to be removed from the SNC list, the county must comply with all total inorganic nitrogen limits for three consecutive months. Plant staff were optimistic that consistent compliance with all of the LAMP limits will be achieved once all of the necessary repairs are completed.
  
4. The effective LAMP requires semi-annual groundwater monitoring at six groundwater monitoring wells. Two of the wells are located hydrogeologically upgradient of the storage lagoon, two are downgradient of the lagoon, one is upgradient from the land application areas and one is downgradient of the land application areas. To my knowledge, background ground water monitoring was performed in 2005-2006 but no additional information has been submitted since that data was collected. The LAMP requires that semi-annual sampling be performed in the months of June and December. **Please be advised that escalated enforcement action will be initiated if the County fails to conduct groundwater sampling in December 2013 and any other required semi-annual event thereafter until the expiration date of the LAMP.**