



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

Re: **Notice of Violation**  
Defiance Municipal WTP  
NPDES Permit 2IW00060/OH0078417  
Compliance Evaluation Inspection  
Defiance County

October 10, 2012

Mr. Adam McDowell  
Water Superintendent  
Defiance Municipal WTP  
631 Perry Street  
Defiance, Ohio 43512

Dear Mr. McDowell:

On August 30, 2012, a Compliance Evaluation Inspection (CEI) was conducted at the Defiance Municipal Water Treatment Plant (WTP). You were present for the inspection along with Mr. Bob Lulfs, Assistant Water Superintendent, representing the facility. I was also present and represented the Ohio EPA, Northwest District Office, Division of Surface Water. The purpose of the inspection was to evaluate compliance with the terms and conditions of your National Pollutant Discharge Elimination System (NPDES) permit and to evaluate the operation and maintenance of the plant.

During my inspection, white sludge solids were observed in Colwell Ditch within a 50 foot long stretch of stream, which acts like a basin due to large concrete blocks located downstream of the discharge. The white color was attributed to algae growth and dry weather. I requested that the solids be removed from the stream as quickly as possible.

A reconnaissance inspection was conducted on September 20, 2012, to verify that the sludge solids had been removed from the stream. The sludge solids had not been removed from Colwell Ditch and due to recent rains, the white algae was no longer present. Instead, the sludge was the orange (iron) color that we have observed in this stream on two other occasions. Please see enclosed photos.

I visited the facility office and spoke with you regarding the three week delay in getting the stream cleaned up. You attributed the delay to getting quotes from potential contractors and finding contractors available to complete the work.

Mr. Adam McDowell  
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We received your email of September 28, 2012, that includes a Schedule of Compliance for immediate and long term physical modifications to the wastewater treatment lagoons. These modifications are proposed to prevent further leakage of wastewater between the boards of the ineffective decanting system for the wastewater lagoons. The immediate physical modifications will include installation of valves for each lagoon discharge pipe to prevent discharges from leaking between boards and the removal of the discharge of sand filter backwash water to the lagoons during summer months, which will reduce the flow treated by 50-100,000 gallons per day and reduce the volume of water discharging from between the boards and reaching Colwell Ditch.

On October 4, 2012, you notified me by phone that the first physical modification to the lagoons had been completed. Butterfly valves have been installed at every lagoon discharge pipe.

Allowing the sludge to discharge and accumulate in the stream is a violation of Ohio Administrative Code (OAC) Section 3745-1-04. Therefore, the deposited sludge must be removed from the stream immediately.

From our review of your files, we have found documentation that Colwell Ditch has been contaminated by lime sludge on at least three other occasions. If these violations continue to occur and if satisfactory progress is not made, it will be necessary to initiate an enforcement action to achieve compliance. We will return for a follow up inspection in the near future.

If you have any questions or comments concerning the enclosed inspection report, please contact me at 419-373-3067 or e-mail at [Dana.Martin-Hayden@epa.state.oh.us](mailto:Dana.Martin-Hayden@epa.state.oh.us).

Sincerely,



Dana Martin-Hayden  
Environmental Specialist II  
Compliance and Enforcement Unit  
Division of Surface Water  
Northwest District Office

/jlm

Enclosures

ec: Dana Martin-Hayden  
Tracking

NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING				
Permit #	NPDES #	Inspection Type	Inspector	Facility Type
2IW00060	OH0078417	CEI	S	2
Inspection Date	Entry Time	Exit Time	Notice of Violation	Significant Non-Compliance
8/30/2012	10:15 AM	12:45 PM	Yes	Yes

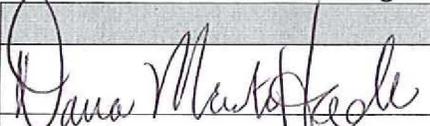
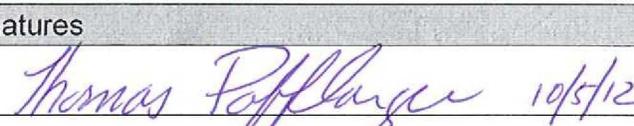
SECTION B: FACILITY DATA	
Name and Location of Facility Inspected	Permit Effective Date
Defiance Municipal WTP	8/1/2007
	Permit Expiration Date
	7/31/2012
Name(s) and Title(s) of On-Site Representatives	Phone Numbers
Adam McDowell, Water Superintendent Bob Lulfs, Assistant Water Superintendent	419-782-1886
Name and Title of Responsible Official	Phone Number
McDowell, Adam, Water Superintendent	(419) 782-1886

SECTION C: AREAS EVALUATED DURING INSPECTION	
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated	
NPDES Compliance	U
Operations & Maintenance	U
Facility Site Review	U
Collection System	NA
Flow Measurement	M
Receiving Waters	U
Laboratory	N

Comments:

Facility has chronic issue with discharge of solids from lagoons into Colwell Ditch. Solids in Colwell Ditch observed August 30, 2012 and September 20, 2012. Cleanup of ditch was not conducted.

On September 28, 2012, the facility submitted a schedule of compliance detailing clean up initiatives and physical modifications to lagoon (installation of valves for each lagoon and removal of sand filter backwash water to lagoons during summer months – reroute to Defiance WWTP during dry weather)

Signatures	
 10/5/12	 10/5/12
Dana Martin-Hayden, Inspector Compliance & Enforcement Division of Surface Water Northwest District Office	Thomas Poffenbarger, P.E., Reviewer Compliance & Enforcement Supervisor Division of Surface Water Northwest District Office

## Compliance Data for Defiance Municipal WTP between 5/1/2010 to 8/1/2012

### Summary

Permit Effluent Limit Violations: 4

Permit Effluent Code Violations: 0

Permit Effluent Frequency Violations: 0

Compliance Schedule Violations: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2011	001	Total Suspended Solids	1D Conc	45	45.5	3/22/2011
March 2011	001	Total Suspended Solids	7D Conc	30	45.5	3/22/2011
July 2011	001	Total Suspended Solids	7D Conc	30	36.5	7/8/2011
July 2011	001	Total Suspended Solids	1D Conc	45	71.5	7/11/2011

**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 ..... Y
- (d) Flows and loadings conform with NPDES permit ..... N
- (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 ..... NA
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments:

d) New permit application has new flow values – incorrect in past

**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..... N
- (d) Permittee is meeting compliance schedule ..... NA

Comments: TSS violations attributed to chronic issues with flow through the wooden boards used to decant the lagoons. They have contracted with C and W tank to clean up Colwell stream as soon as they are able, which is projected to be Friday October 5, 2012. They are actively procuring the valves for isolating the water treatment lagoons so flow leaking between boards cannot get to the stream. Working to remove filter backwash, which adds an additional 50-100,000 gpd of very low solids flow to the wastewater treatment lagoons, with the Defiance WWTP and should be completed this fall barring issues with metering and SCADA set up.

**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 ..... N
- (d) Wastewater Treatment Works classification..... NA
- (e) Operator of Record holds unexpired license of class required by Permit.. NA  
Class held:
- (f) Copy of certificate of Operator of Record displayed on-site ..... NA
- (g) Minimum operator staffing requirements fulfilled..... NA
- (h) Routine and preventative maintenance scheduled and performed ..... Y
- (i) Any major equipment breakdown since last inspection ..... N
- (j) Operation and maintenance manual provided and maintained ..... N
- (k) Any plant bypasses since last inspection ..... N
- (l) Regulatory agency notified of bypasses..... N  
By MOR  and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic or organic overloads since last inspection ..... Y

Comments: Addition of backwash filter water to lagoons increases the amount of solids reaching Colwell Ditch

**SECTION G: RECORD KEEPING**

- a) Log book provided..... NA
- b) Format of log book (i.e. computer log, hard bound book)
- c) Log book(s) kept onsite in an area protected from weather ..... NA
- d) Log book contains the following:
  - i) Identification of treatment works..... NA
  - ii) Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7 ..... NA
  - iii) Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs) ..... NA
  - iv) Laboratory results (unless documented on bench sheets)..... NA
  - v) Identification of person making log entries ..... NA
- e) Has the Operator of Record submitted written notification to the permittee, Ohio EPA and any applicable local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred? ... NA

Comments:

A logbook is recorded for the plant and any significant issues are logged into the logbook. Preventive Maintenance was performed in that boards were changed out and water levels adjusted, however, issues with using boards as a decanting barrier has not been a sustainable or reliable method to prevent leakage. Therefore, efforts to maintain them has not produced a successful result.

**SECTION H: COLLECTION SYSTEM**

- a) Percent combined system:..... NA
- b) Any collection system overflows since last inspection..... NA  
CSO  SSO
- c) Regulatory agency notified of overflows ..... NA
- d) CSO O&M plan provided and implemented. .... NA
- e) CSOs monitored and reported in accordance with permit..... NA
- f) Portable pumps are used to relieve system ..... NA
- g) Lift station alarms provided and maintained ..... NA
- h) Lift stations equipped with permanent standby power or equivalent ..... NA
- i) Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection. .... NA
- j) Any complaints received since last inspection of basement flooding ..... NA
- k) Are any portions of the sewer system at or near capacity ..... NA
- l) Are operations changed during high-flow events? ..... NA

Comments:

**SECTION I: SLUDGE MANAGEMENT**

- a) Sludge management plan (SMP) last audited by Ohio EPA:  
Audit Date:
- b) Sludge adequately disposed ..... Y  
Method: Land Application
- c) If sludge is incinerated, where is ash disposed of ..... NA
- d) Is sludge disposal contracted .....  
Name: Pradco, Steve Perry Owner
- e) Has amount of sludge generated changed significantly ..... Y
- f) Adequate sludge storage provided at plant ..... N
- g) Records kept in accordance with State and Federal law ..... Y
- h) Any complaints received last year regarding sludge ..... N
- i) Is sludge adequately processed (digestion, pathogen control) ..... Y

Comments:

The lime sludge has been reclassified as an agricultural product and no longer needs a plan. The amount of sludge produced at the facility has increased 25%. They are having contractor issues removing the sludge quickly enough to access adequate volumes of wastewater treatment in the lagoons.

**SECTION J: SELF-MONITORING PROGRAM**

- a) Primary flow measuring device operated and maintained ..... NA  
Type of device: Device location:
- b) Calibration frequency adequate ..... NA  
Date of last calibration:
- c) Secondary instruments operated and maintained ..... NA
- d) Flow measurements equipment adequate to handle full range of flows .... NA
- e) Actual flow discharged is measured ..... N
- f) Flow measuring equipment inspection frequency \_\_\_\_\_ NA
- g) Sampling location(s) are as specified by permit ..... Y
- h) Parameters and sampling frequency agree with permit ..... Y
- i) 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:

They estimate flow off of sludge pulled from backwash water and they put some additional volume in for rain and they do not consider evaporation.

**SECTION K: Laboratory**

- a) EPA applicable analytical testing procedures used (40 CFR 136.3) ..... Y
- b) If alternate procedures are used, are they properly approved?..... N
- c) Analysis performed more frequently..... N  
If yes, are results recorded in permittee's report? ..... NA
- d) Commercial laboratory used: N  
Name:  
Parameters analyzed:
- e) Quality assurance manual provided and maintained..... Y
- f) Calibration and maintenance of instruments is satisfactory?..... Y
- g) Results of last U.S. EPA quality assurance.....  
Date: Within the last year

Comments:

Issue with Nitrates on the US EPA quality assurance test and then it was retested.

**SECTION L: EFFLUENT/RECEIVING WATER OBSERVATIONS**

Outfall Number	Outfall sign in place	Oil Sheen	Grease	Turbidity	Foam	Solids	Color	Other
001	NA	N	N	Y	N	Y	Slight white green color	

Comments:

Solids accumulated in Colwell Ditch are present for approximately 50 feet length of the ditch in a section that acts as a bowl, which is due to concrete slabs placed downstream of the effluent. The solids were white in color and Mr. McDowell stated this was due to algae and dry weather. During the reconnaissance inspection, the solids in the stream were orange in color due to recent rain events that had removed the top layer of white sludge/algae and may have been deposited further downstream. Cleanup efforts and modifications to the lagoons (installation of valves and reduction of wastewater – filter backwash water- discharging to the lagoons) is being scheduled immediately.

**SECTION M: MULTIMEDIA OBSERVATIONS**

- a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories ..... NE
- b) Do you notice staining or discoloration of soils, pavement or floors ..... N
- c) Do you notice distressed (unhealthy, discolored, dead) vegetation ..... N
- d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks ..... N
- e) Do you notice any unusual odors or strong chemical smells..... N
- f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities ..... N

If any of the above are observed, ask the following questions:

- 1) What is the cause of the condition?
- 2) Is the observed condition or source a waste product?
- 3) Where is the suspected contaminant normally disposed?
- 4) Is this disposal permitted?
- 5) How long has the condition existed and when did it begin?

Comments:

Defiance Water Treatment Plant Inspections  
Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
Pictures taken by Dana Martin-Hayden , Ohio EPA NWDO

**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
Pictures taken by Dana Martin-Hayden , Ohio EPA NWDO

**August 30, 2012**



**September 20, 2012**



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**September 20, 2012**



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**August 30, 2012**



**September 20, 2012**



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Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
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**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Discharge Structure at the Waste Water Treatment Lagoons  
Pictures taken by Dana Martin-Hayden , Ohio EPA NWDO

**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Colwell Ditch approximately 100 feet downstream of the  
Discharge from Waste Water Treatment Lagoons  
Pictures taken by Dana Martin-Hayden, Ohio EPA NWDO

**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
Pictures taken by Dana Martin-Hayden , Ohio EPA NWDO

**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
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**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
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**August 30, 2012**



**September 20, 2012**



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Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
Pictures taken by Dana Martin-Hayden , Ohio EPA NWDO

**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Colwell Ditch at Discharge from Waste Water Treatment Lagoons  
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**August 30, 2012**



**September 20, 2012**



Defiance Water Treatment Plant Inspections  
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**August 30, 2012**

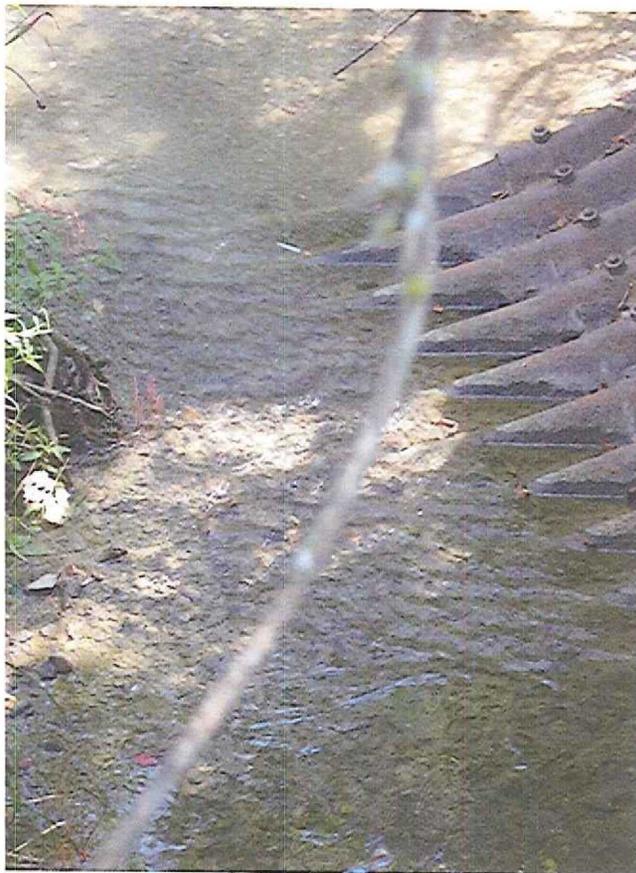


**September 20, 2012**



Defiance Water Treatment Plant Inspections  
Colwell Ditch approximately 100 feet downstream of the  
Discharge from Waste Water Treatment Lagoons  
Pictures taken by Dana Martin-Hayden, Ohio EPA NWDO

**August 30, 2012**



**September 20, 2012**

